

# The Ancient Art of Ayurvedic Pulse Diagnosis Dr. Vasant Dattatray Lad



Lord Ganesha

ॐ गँ गणपतये नमः ।

Salutation to Lord Ganesha who is the seed of wisdom and light. (translation of sūtra)

Lord Ganesha first wrote the story of human life in the form of Mahabharata, dictated to Him by Maharshi Vyāsa, which later became the true history of mankind, revealing various potentials and characteristics of human beings. With His love and blessings one may learn the hidden secrets of the pulse as written in this book.

Ganesha is the son of Shiva and Parvati. He is the first Lord to be worshipped at the beginning of any auspicious work. He removes obstacles and brings success, fulfillment and great joy to the life of every human being.

The Ancient Art of Ayurvedic Pulse Diagnosis

by

## Dr. Vasant Dattatray Lad



The Ayurvedic Press Albuquerque, New Mexico Although the information contained in this book is based on Ayurvedic principles practiced for thousands of years, it should not be taken or construed as standard medical diagnosis or treatment. For any medical condition, always consult with a qualified physician.

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Dedication

॥ श्रीः ॥

This book is dedicated with all my heart to my loving wife, Ushā, who has inspired and supported me in all walks of my life.

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### About the Author and the Institute

Dr. Lad graduated in 1968 from the University of Pune in India with a Bachelor of Ayurvedic Medicine and Surgery (B.A.M.S.) He later earned a Master of Ayurvedic Science (M.A.Sc.) degree from Tilak Ayurved Mahavidyalaya in Pune, India. The B.A.M.S. degree is roughly equivalent to the degree an M.D. must have in this country. The M.A.Sc. degree requires additional advanced, post-graduate work and study.

He served for three years as Medical Director of the Ayurveda Hospital in Pune, India. He also held the position of Professor of Clinical Medicine at the Pune University College of Ayurvedic Medicine where he was an instructor for more than a decade. Dr. Lad's Academic and practical training includes the study of allopathic medicine and surgery as well as traditional Ayurveda.

Dr. Lad is also the author of Ayurveda, the Science of Self-Healing and the co-author of Ayurvedic Cooking for Self-Healing and The Yoga of Herbs, as well as numerous published articles on various aspects of Ayurveda. He presently directs the Ayurvedic Institute in Albuquerque and teaches the eight month Ayurvedic Studies program. Dr. Lad travels extensively throughout the year, consulting privately and giving seminars on Ayurveda: its history, theory, principles and practical applications.

The Ayurvedic Institute was established in 1984 to promote the traditional knowledge of Ayurveda. In support of this, the Institute also offers programs in the sister disciplines of Sanskrit, Yoga and Jyotisha (Vedic Astrology).

The main Ayurvedic programs reflect the style of sitting with a traditional Indian teacher. The Vedic educational model is quite different from the "Western" experience with which most of us are familiar. In keeping with these oral traditions, the knowledge is presented with the integral aspects of the body, mind and spiritual components intact, along with practical examples and stories.

## Editor's Note

on conventions used for this book in the presentation of Sanskrit words.

Knowledge of Avurveda originates in the Sanskrit language. In many languages the basic characters of the alphabet are similar to English (e.g., a. b, c...). Sanskrit is a precise phonetic language and uses a set of written symbols that are quite "foreign" to most Westerners (e.g., and *vāta*.) The phonetic representation of Sanskrit words using the English alphabet is called transliteration. However, there are quite a few sounds that do not exist in the English language, requiring special characters to represent them accurately. For instance, the first a in vāta is a long a, as in "father," that is held for two beats and the second a is a short a, as in "what." Another example is a sound somewhere between i, u and r that occurs in the word प्रकृति. This word is transliterated as prakrti. The r is pronounced as the ri in the English spelling of the word Krishna. Among those who speak Hindi, the r is pronounced in northern India as the i in "it" and in southern India as the *u* sound in "root." Because of the regional variations in pronunciation, in this book both ru and ri will be found in place of the technically correct r. Also, because of the influence of Hindi, the trailing a in Sanskrit words is sometimes omitted. It is included in many of the words in this book.

In Secrets of the Pulse we have chosen not to use the technical transliteration character set except for long vowels, denoted by an overscore, and the *nya* sound denoted by  $\tilde{n}$ . The pronunciations are:  $\bar{a}$  as the *a* in "father,"  $\bar{u}$  as the *oo* in "root," and  $\bar{i}$  as the *ee* in "see."

This book assumes some knowledge of Ayurveda and should not be considered an introductory text. For further reading and information on Ayurveda, please consider the texts listed in the bibliography.

## Preface

For the last 14 years, I have been traveling extensively giving lectures on various aspects of Ayurveda. Because of the interest in Ayurveda in the hearts of both practitioners and laymen and because of the demand, I have also been teaching seminars on pulse diagnosis across the United States, England and at the Ayurvedic Institute in Albuquerque, New Mexico.

In any system of medicine, pulse assessment is a matter of technical skill, subjective experience and intuition. Accuracy also depends upon the individual's persistent practice and quality of sensitive awareness. My early education in pulse reading was influenced by several teachers, *gurus* and *yogis* in India. Even though simplified descriptions of various conditions of the pulse are found in the standard Ayurvedic texts, the methods of examination are not given in detail. However, it is possible to learn these subjective methods of pulse examination that reveal the characteristics of the individual's *prakruti, vikruti* and various *doshic* disorders and to verify their accuracy objectively.

During my travels, many students encouraged me to write a book on pulse diagnosis based upon Ayurvedic principles. The purpose of this book is to teach simplified techniques to students and to provide deep comprehensive information as well. Throughout my earlier Ayurvedic education, I also studied modern allopathic medicine and this knowledge has broadened my interpretation of pulse reading. It is quite interesting to note that Charaka and Sushruta, well known Ayurvedic physician and surgeon, respectively, say:

> तस्माच्छास्त्रेऽर्थे विज्ञाने प्रवृत्तौ कर्म दर्शने । भिषक् चतुष्ट्ये युक्तः प्राणाभिसर उअयते ॥

> > च.सू. ९, १८

Therefore, the physician who possesses the four-fold accomplishment consisting of theoretical knowledge, clear interpretation, right application and practical experience is to be regarded as the reclaimer of life.

Ca. Sü. 9:18

एकं शास्त्रमधीयानो न विद्याच्छास्त्र निश्चयम् । तस्मादु बहुश्रतः शास्त्रं विजानीयाच्चिकित्सकः ॥

सु.सू. ४, ७

By knowing one science alone, one cannot arrive at an accurate scientific assessment. Therefore, a physician should study other sciences in order to arrive at correct diagnosis.

Su. Sū. 4:6

प्रयोगज्ञानविज्ञानसिद्धिसिद्धाः सुखप्रदाः । जीविताभिसरास्ते स्युः वैद्यत्वं तेष्ववस्थितम् ॥

च.सू. ११, ५३

Those who are accomplished in application, theory, knowledge of allied sciences and success of treatment are the true healers. In them is the glory of the physician fully manifest.

Ca. Sū. 11:53

These quotes from the Vedic texts show that Ayurveda is an all-inclusive science of life and is open to all avenues of healing.

All of what I am sharing with you in this book may not be found in the standard Ayurvedic texts. However, all that I have included here is based upon Ayurvedic principles. I received this knowledge from my mentors in the Ayurvedic tradition and it has since unfolded in my heart through clinical observation and practice over the last 25 years.

This book will give guidelines to think about various ways of feeling, reading and gathering information through the pulse. It is quite difficult to put subjective experience into words. This is my sincere attempt to express these simple ways of feeling the pulse. I hope, dear readers, that you will love this humble effort.

Love and light,

Dr. Vasant Lad Albuquerque, New Mexico May 1996



## Acknowledgments

The author would like to acknowledge those whose dedication and insight brought the knowledge of Ayurveda to the world, especially his teachers who lovingly showed the way and shared their knowledge and experience, and all the friends and staff at the Ayurvedic Institute without whose contributions this book would not exist. Finally, and with deep gratitude, the author would like to acknowledge the work of Margaret Smith Peet who tirelessly transcribed and edited the vast amount of material for this book.



# Nādi Vijñānam

## The Art of Reading the Pulse

प्रकृतिं पश्यति पुरुषः प्रेक्षकवदवस्थित स्वस्थः । सां. का. ६४

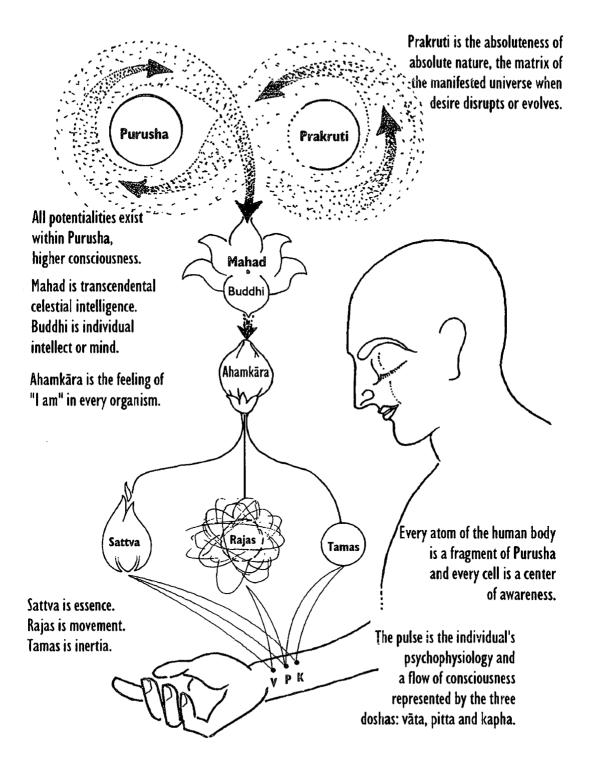
Remaining stable in one's own state of being, the soul (Purusha) perceives the nature (Prakruti) as the witnessing observer.

Sān. Kā. 65

The entire Vedic tradition is composed of highly spiritual wisdom and pure knowledge revealed through the hearts of enlightened *rishis*. It is not a creation made by the mind of man but rather unfolded in the hearts of meditative minds. The ancient Vedic wisdom came from the caves and mountains of India where the *rishis* had ashrams and disciples. Students came to study in the *guru's* home. The *rishis* imparted knowledge as they experienced it in a deep state of meditation. These early teachings were an oral tradition and, because there were no books, the students stored the knowledge in their brains and it became a part of them.

The knowledge of Ayurveda has been passed down to us in *sūtras* or small phrases and the wisdom they contain is there to be unlocked by the inquiring mind. Much of the information in this book is based upon the truths contained in these ancient *sūtras*, written in the form of poetry during Vedic times more than 5,000 years ago. The Sanskrit word *sūtra* literally means to suture with a thread. The words of a *sūtra* convey hidden subconscious meaning to conscious-

## Sānkhya-The Flow of Consciousness and the Pulse



ness. However, the discovery of these hidden meanings needs the guidance of a teacher. The small phrase of the  $s\bar{u}tra$  is analogous to a thread passing through the eye of a needle. The eye of the needle is small but the trail of the thread leads to great hidden wisdom waiting for interpretation.

"Ayur-Veda," translated as "The Science of Life," is an Upa-Veda, or secondary Veda, to the four main Vedas— Samaveda, Yajurveda, Atharvaveda and Rigveda—among the oldest bodies of knowledge in human culture. The knowledge contained in Ayurveda deals with the nature, scope and purpose of life. It embraces both the metaphysical and physical, health and disease, happiness and sorrow, pain and pleasure. It defines life as the expression of Cosmic Consciousness as exemplified by the entire sphere of creation. Stated simply, the purpose of life is to know or realize the Creator (Cosmic Consciousness) and to express this divinity in one's daily life.

Ayurveda incorporates the six systems of Indian philosophy—Nyāya, Vaisheshika, Sānkhya, Yoga, Mimāmsā and Vedanta. Later Ayurveda also included Buddhism. Sānkhya philosophy, the system most basic to Ayurveda, outlines a model of creation and evolution. The sages discovered truth through intensive meditation. Ayurveda is a science of daily living and this system of knowledge evolved from the *rishis'* practical, philosophical and spiritual illumination, which was rooted in their understanding of creation. They perceived how cosmic energy manifests in all living and non-living things. They also realized that the source of all existence is Universal Consciousness, which manifests as male and female energy—*Purusha* and *Prakruti*.

The rishi Kapila, the founder of Sānkhya philosophy, discerned 24 principles or elements in the manifestation of the universe. *Purusha* is male energy. *Prakruti* is female energy. *Purusha* is formless, colorless, beyond attributes and takes no active part in creation. This energy is choiceless, passive awareness. *Prakruti* yields form, color and attributes in the field of action. It is awareness with choice, Divine Will, the One who desires to become many. The uni-

verse is the child born out of the womb of *Prakruti*, the Divine Mother. *Prakruti* creates all forms in the universe, while *Purusha* is the witness to this creation. The three gunas are sattva (the pure essence), rajas (movement) and tamas (inertia). These three are the universal qualities within all existence and are contained in *Prakruti*. When their equilibrium is disturbed, there is an interaction of the gunas which thus engenders the evolution of the universe.

Rajas is the active vital life force in the body which moves both the organic and inorganic universal aspects to sattva and tamas, respectively. So sattva and tamas are inactive, potential energies that require the active, kinetic force of rajas. Sattva is creative potential (Brahma); rajas is kinetic protective force (Vishnu); and tamas is resistance to change or potential destructive force (Mahesh). Creation (Brahma), Protection (Vishnu) and Change or Destruction (Mahesh) are the three manifestations of the first cosmic soundless sound, aum, which are constantly operating in the universe. The chart at the beginning of this chapter illustrates the manifestation of creation according to Sānkhya.

The first expression of *Prakruti* is *Mahad*, intelligence. From *Mahad* the ego (*Ahamkāra*), the sense of "I am," is formed. As a result of the influence of the three gunas, *Ahamkāra* then manifests into the five senses, the five motor organs and the mind (*manas*) with the help of sattva and rajas, thus creating the organic universe. *Ahamkāra* further manifests into the subtle tan mātra and then into the five basic elements (Space, Air, Fire, Water and Earth) with the help of rajas and tamas, to create the inorganic universe.

> सेन्द्रियं चेतनं द्रव्यं निरिन्द्रियमचेतनम् च.सू. १:४८

Substances endowed with sensory organization are organic (or sentient) and others, which are not endowed, are inorganic (or non-sentient). Ca. Sū. 1:48

Ayurveda is the art of daily living in harmony with the laws of nature. Its aims and objectives are to maintain the perfect health of a healthy person through prevention and to cure the disease process in an unhealthy person through proper diet, lifestyle, *pañchakarma* and rejuvenation. For this purpose we need a basic understanding of pulse. This pulse technique is called *nādi vijñānam*. *Nādi* means pulse and *vijñānam* means understanding, comprehension or specialized knowledge.

Ayurveda is a practical, clinical, medical science. It has its unique methodology of eight clinical limbs—examination of pulse, urine, feces, eyes, tongue, speech, skin and form. The most important of these limbs is the pulse, the foremost clinical art that Ayurveda has used through the ages. The experienced Ayurvedic physician will assess *prakruti, vikruti, doshic* disorders, other subtle observations and even prognosis of disease through the pulse. Ayurvedic pulse opens up the doors of perception to explore the hidden secrets of life.

Pulse is a subtle manifestation of universal consciousness pulsating through a person's constitution. As we know, the pulsation of the blood through the body carries nutrients to the cellular level. There is a continuous flow of communication between cells and this flow of communication is intelligence. Pulse can reveal cellular intelligence through a person's constitution.

The Sanskrit literature contains a number of words that can be translated as pulse. The most commonly used word is  $n\bar{a}di$ , which means a river of life expressed through the pulse. The second word for pulse is  $sn\bar{a}yu$ , literally translated as subcutaneous tissue or fascia. As we know, the pulse lies within the subcutaneous tissue. Therefore, the pulse is called  $sn\bar{a}yu$ . The third synonym is *tantu*, which means the string of a musical instrument through which one can listen to the music of feelings and emotions. Hence, pulse is also called *tantu*.

Another synonym is *hamsī*. In the breath there is a sound called "so-hum," "hum-sa." On inhalation "so" goes in and on exhalation "hum" goes out. When "hum-sa, hum-sa, hum-sa" is repeated, it becomes "so-hum." "So-hum" is Shiva, "hum-sa" is Shakti. Shiva and Shakti, ancient deities of India representing male and female, are one and "so-

hum" and "hum-sa" are the same. It is natural to inhale "so" and exhale "hum." "So" is higher consciousness, which goes in. "Hum" is the ego, which goes out. "So-hum" is *hamsa* and *hamsa* means swan. *Hamsa* is a male swan and *hamsī* is a female swan. These sound vibrations of the breath are moving through the  $n\bar{a}dis$ . Therefore, the pulse is called *hamsī*.

Another synonym for the pulse is *dhamanī*. *Dhamanī* means artery, the pulsating blood vessel which carries blood away from the heart. During cardiac activity the heart produces the sound *dhum-dhum* and, through *dhamanī*, *prāna* is supplied to all the *dhātus* or tissues. Hence, the pulse is called *dhamanī*.

Dhāranī means to hold or support. The pulse moves through all organs. Because of this movement, pulse is called dhāranī, that which holds all organs together, that which holds life. Pulse is also called dhārā, which means the continuous flow of consciousness. Another synonym is sarita, a river of daily life. It is also called jīva, an expression of individual life.

There are also other usages of the word nādi. Vishva means universe and the flow of universal energy is called vishva nādi, which is connected to individual life through prāna (the breath). Sit quietly and bring total attention to the breath. Try to detect which nostril has the most air passing through it. Then note the subtle sensation of where the air is brushing against the inner nostril. The breath of the right nostril is male solar energy; the left nostril breath is lunar energy, which is female. Approximately every 90 minutes the breath pattern changes, alternating between breathing through the right nostril and the left. When the exhalation and inhalation of air are brushing more to the inner sides of the nostrils, the Earth element is vibrating, creating a feeling of groundedness and stability. On the other hand, when the Water element is working and the air is brushing to the sides of the nostrils near the cheeks, one will feel emotional, compassionate and loving. But when the breath is touching more at the tip of the nostril, the Fire element is activated and one is prone to feel fiery, judgmental, critical, ambitious and competitive. The Air element is located at the outer sides of



So = Higher consciousness

#### Hum = Individual Self

This divine mantra is constantly occurring through the breath of every living being. Each time we breath in, the sound "so" goes in, as does the sound "hum" each time we exhale. So-hum means "I am that," beyond limitation of mind and body. "I am one with the Absolute."

## **CELESTIAL ELEMENTS IN THE BREATH**

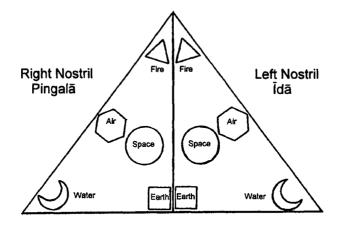


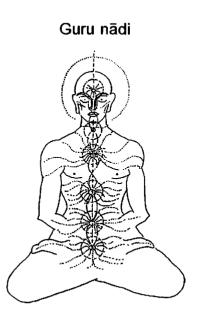
Table 1: Celestial Elements in the Breath				
MANTRA	1. SYMBOL	ELEMENT	EMOTIONS	
हँ Hām	$\bigcirc$	Space	Tranquility, peace, freedom, isolation, loneliness	
यँ Yam	$\bigcirc$	Air	Hyperactivity, confusion, fear, anxiety, fluctuation of emotions	
रँ Rām	$\triangle$	Fire	Competition, aggression, judg- ment, violence	
वँ Vam	$\bigcirc$	Water	Love, compassion, attachment, greed	
रूँ Lam		Earth	Groundedness, stability, depression, heaviness	

the nostrils, causing a fluctuating, hyperactive and confused mind. When Space is prominent, the breath is subtle, neither touching the right nor left sides of the nostrils. It comes from the central axis of the nose, creating tranquillity and peace. The cosmic elements of Space, Air, Fire, Water and Earth are communicated with vishva nādi to the individual life through the breath.

Another  $n\bar{a}di$  that appears in the Shastras is called guru  $n\bar{a}di$ . Guru means master, teacher, an enlightened being. At the time of initiation, the guru "looks" into the initiate's third eye, making certain gestures called mudrā, and with the thumb gives shaktipāt, energy transmission, and awakens the guru nādi or intuition in the person. When the guru nādi starts pulsating, prakruti and vikruti become balanced. This balanced state of being opens the sushumna, the central pathway in the spine, creating a state of transformation. Blessed are those whose guru nādi is awakened. It is a spiritual phenomenon that has to be received from a guru. When the guru nādi is at work, the awakening of the kundalinī shakti takes place. Guru nādi is the basis of universal polarity, the balancing of opposite principles within the individual.

When the guru nādi is awakened, one can feel one's own pulse and through that pulse, while "looking" into the third eye of another person, can feel what is happening with that other person. "Look" directly into the third eye of the person whose pulse you are taking. Make your mind completely empty and in that emptiness begin to visualize, welcoming whatever comes. This is a state of effortless awareness. Start feeling what is happening to the subject as you bring awareness to the tips of the fingers. The art of emptiness is the art of awareness and the guru nādi takes expression through this timeless state. We have to see as a whole and not give emphasis to one fragment. Truth is whole and reality is local. See as a whole and then go to the root cause. This approach sounds rather exotic. However, Ayurveda gives us logic and then helps us to go beyond logic.

The synonyms discussed in this chapter describe different aspects of the pulse. There are two more Sanskrit words



associated with the pulse found in the literature,  $pr\bar{a}n\bar{a}$ chārya and Dhanvantari, one who uses  $pr\bar{a}na$  and higher states of consciousness for healing. For thousands of years the Vedic literature has used the word  $n\bar{a}di$  as a common word for pulse and is the most popular word for pulse throughout the healing system of Ayurveda. In this text the pulse is referred to as  $n\bar{a}di$  and the art or science of pulse reading is called  $n\bar{a}di$  vijnānam.

#### Nādi Prediction

वातं पित्तं कफं द्वन्द्वं त्रितयं सान्निपातिकम् । साध्यासाध्यविवेकं च सर्व नाडी प्रकाशयेत यो र

Pulse denotes vāta-pitta-kapha, their dual and triple disorders, as well as expresses prognosis of diseases. Yoga Ratnakar

Ayurveda uses darshana, sparshana and prashna as the main clinical barometers and they apply to nādi vijñānam as well. Darshana means pure observation and indicates optical perception or inspection. In observation one sees pulsation, whether there is pulsation of the external jugular vein, the apex beat of the heart or an epigastric pulsation. In darshana one also observes the person's physical makeup.

Sparshana is the tactile experience of touch. In some people the  $n\bar{a}di$  is hard to find and may be perceptible only on one side. In kapha individuals, obese people and with generalized swelling, the  $n\bar{a}di$  is buried under adipose tissue. If the radial pulse is difficult to detect, first check the position of the hand (see illustration on page 12) to be sure the finger placement is correct and in contact with the radial artery. Also turn the neck of the subject to the side and look at the carotid and external jugular to see if the jugular is pulsating or the carotid is dancing. A dancing carotid and nod-ding of the head can be a sign of some anomaly related to the heart, such as aortic regurgitation. In sparshana one is actually feeling various changes taking place in the pulse. One can touch the carotid, temporal and femoral pulses as

well as the radial pulse. In the pulse at the temple one finds the condition of *prāna vāta*, *sādhaka pitta* and *tārpaka kapha* connected to *sahasrāra*. *Udāna vāyu*, *prāna vāyu*, *avalambaka kapha* and *rañjaka pitta* can be felt through the carotid. The brachial artery reveals the condition of *samāna vāyu*, *kledaka kapha* and *pāchaka pitta*. The femoral artery shows the pulsation of *apāna vāyu*, *pāchaka pitta*, *shleshaka kapha* and the condition of the reproductive organs. Detailed discussion of these pulses can be found in Chapter Nine.

*Prashna* is questioning. The clinician needs to ask questions of the subject related to the perceived problems and to take a medical history.

The radial pulse is usually chosen as the site to read the pulse because it is the most convenient to read and is more readily available than other pulse sites. It reveals the characteristics of *doshic* imbalance, the nature of diseases and expected prognosis.

#### General Characteristics of Vāta, Pitta and Kapha Pulses

Ether<sup>1</sup>, Air, Fire, Water and Earth, the five basic elements, manifest in the human body as three basic principles known as *tridosha*. From the Ether and Air elements, the bodily air principle called  $v\bar{a}ta$  is manifested. The Fire and Water elements exist together as the fire principle called *pitta*. The Earth and Water elements exhibit as the water principle, *kapha*. These three *doshas* determine individual constitution and govern functions of the body in normal conditions and, when out of balance, they contribute to the disease process.

Before going into the actual study of pulse, we will discuss the general characteristics of *doshic* pulse. The *rishis* described the manner in which the pulse moved by comparing it to the movements of different animals. They called this movement *gati*. The mobility of the *vāta* pulse is called *sarpa gati* (cobra pulse), that of *pitta* is called *mandūka gati* 

<sup>1.</sup> The words "ether" and "space" are used interchangeably.

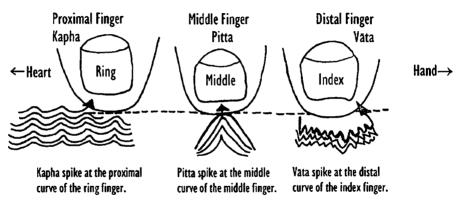
(frog pulse), while the motion of *kapha* pulse is called *hamsa gati* (swan pulse).

 $V\bar{a}ta$  pulse is superficial, cold, light, thin, feeble and empty. With more pressure, it disappears. It moves fast and may become irregular. It is best felt under the index finger. With keen observation one can feel a little leech or a little cobra moving under the finger. Try to have that insight when feeling the pulse.  $V\bar{a}ta$  pulse is cold to the touch because of insufficient insulating material and very little subcutaneous fat, which is why people with a  $v\bar{a}ta$  constitution lose heat and hate cold.

*Pitta* pulse is full with a strong throb. It is hot and abrupt, with high amplitude, good volume and considerable force. It is best felt under the middle finger and it moves like a leaping frog. *Pitta* pulse is hot to the touch because *pitta* people have strong heat.

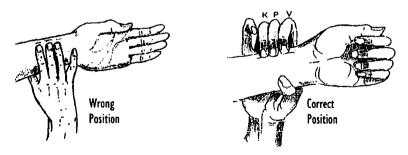
Kapha pulse is deep, slow, watery, wavy and cool to the touch. It moves like a swimming swan. Kapha people retain heat in the body because of the thick layer of fat under the skin. The temperature of the pulse, as mentioned in this section, denotes much more than just the feeling of warmth or cold felt on the skin. To the sensitive clinician, there is an intuitive feeling of temperature reflected through the pulse itself.

 $V\bar{a}ta$ , pitta and kapha pulses are the three basic pulses considered in this text. We will be using the terms proximal, middle and distal. When correctly placed on the wrist, the ring finger, which is closest to the heart, is proximal. The index finger, which is away from the heart, is distal. In between is the middle finger.



अग्ने वातवहा नाडी मध्ये वहति पित्तला । अन्ते श्लेष्मविकारेण नाडी ज्ञेयाबुधैः सदा ॥ यो. र. Under the first, the index finger, vāta nādi occurs, while pitta appears beneath the middle finger and kapha ultimately shows below the ring finger. The wise person should always know these basic characteristics of pulse. Yoga Ratnakar

Always feel the pulse from the radial side and never from the ulnar side. When viewing the body in the anatomical position, the radial side next to the thumb is considered the outer side and the inner side next to the little finger is the ulnar side. On the radial side there is a bony protuberance called the radial tubercle. There are two schools of thought about finger placement. The index finger can be placed above or below the radial tubercle. If the finger is placed above the radial tubercle, a gap is created between the distal and middle fingers, so some authorities say to avoid the radial tubercle. However, the index finger is never placed on the radial tubercle, because this position will give an incorrect reading. I prefer keeping all three fingers together proximal to the radial tubercle and closer to the heart. Do not bunch the fingers together, but separate them slightly, so that the throbbing under each finger can be felt distinctly.



Thus, we have described the general characteristics of the  $v\bar{a}ta$ , *pitta* and *kapha* pulses. An outline of the principle traits of each of these pulses is included in Table 2: The Three Basic Gatis of Nādi on page 13.



## THE THREE BASIC GATIS OF NADI

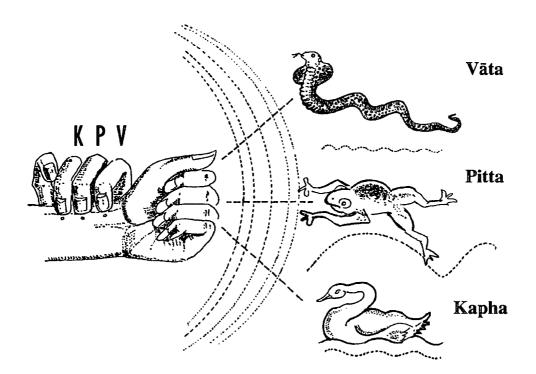


Table 2: The Three Basic Gatis of Nādi					
	VĀTA PULSE	PITTA PULSE	KAPHA PULSE		
Characteristics	Fast, feeble, cold, light, thin, disappears on pressure	Prominent, strong, high amplitude, hot, forceful, lifts up the palpating fingers	Deep, slow, broad, wavy, thick, cool or warm, regular		
Location	Best felt under the index finger	Best felt under the middle finger	Best felt under the ring finger		
Gati	Moves like a cobra	Moves like a frog	Moves like a swimming swan		

	VĀTA	PITTA	КАРНА
Gati (Movement)	Sarpa (cobra)	Mandūka (frog)	Hamsa (swan)
Vega (Rate)	80-95	70-80	50-60
Tāla (Rhythm)	irregular	regular	regular
Bala (Force)	low +	high +++	moderate ++
Ākruti (Tension and Volume)	low	high	moderate
<b>Tapamāna</b> (Temperature)	cold	hot	warm to cool
<b>Kāthinya</b> (Consistency of Vessel Wall)	rough, hard	elastic, flexible	soft thickening

#### Gati (Movement)

The word *gati* means movement. We have discussed the three basic pulses. In order to begin to understand the variety and complexity in pulse reading, we will look at some variations of these pulses or *gatis*. This introduction will begin to expand our sensitivity and later we will go into the detection of specific disease conditions in more detail.

In addition to the three *doshic gatis*, there are other pulses which help to identify specific diseases. In *jalauka gati* (leech pulse), the pulse touches the fingers of the clinician one after another in rhythm like the movement of a leech (see illustration). *Pitta* enters *rakta dhātu* which then carries *pitta* deeper into *asthi dhātu*, the joints, leading to gout and arthritis.

Under mand $\bar{u}ka$ , the pitta pulse, the rishis observed lāvaka, tittiraka and kāka. Lāvaka is a common quail. A lāvaka pulse indicates the possibility of prostatitis in a man



Jalauka Gati (Leech Pulse)

or cervicitis in a woman. Tittiraka is a partridge. With a tittiraka pulse, the partridge hops and then stops. This pulse shows a sharp spike under the middle finger indicating gastric ulcer. Kāka means crow and this pulse has a higher spike than tittiraka and denotes an excess pitta disorder in the small intestine (enteritis). This kind of observation is called darshana of the pulse, which leads to antar darshana, inner vision or insight. Practicing this kind of observation, one opens new doors of perception through the tips of the fingers.

Mayūra Gati (Peacock Pulse)



Ushtra Gati (Camel Pulse)

Gaja Gati (Elephant Pulse)

Padma Gati (Lotus Pulse)

The peacock pulse is called *mayūra gati*. The peacock *gati* is full and bounding but the distal phase is spreading like the fan of a peacock. Peacock *gati* is common in arterial hypertension. This pulse may occur in *kapha-pitta* people.

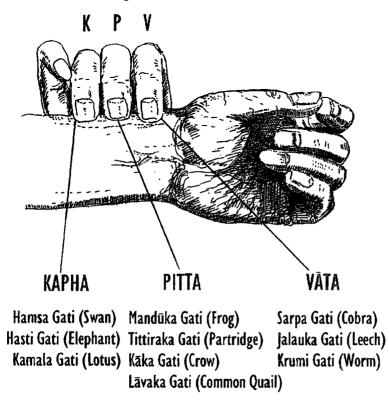
Another interesting dual pulse under the  $v\bar{a}ta$  or *pitta* finger is the camel pulse, which has a hump. Lift the finger and a little notch will be felt, which then drops down. This is called *ushtra gati* (camel pulse). A camel pulse indicates aortic stenosis with thickening or narrowing of the aortic valve.

Under *kapha*, the ring finger, which moves like a swan, one can observe an elephant pulse. The elephant walks slowly, and the elephant pulse moves deeply and slowly.

The elephant pulse feels like the head of an elephant with a little notch. Feel the elephant moving under the ring finger, letting intuition and awareness work. It is slow, deep and heavy, with a notch before it collapses. This pulse is called *gaja gati* and it shows extremely high *kapha* blocked in the lymphatic tissue. This pulse may indicate elephantitis or lymphosarcoma and can be felt under the *kapha* finger (the ring finger).

Under the kapha finger one might also find a padma gati, a lotus pulse. Just as the lotus moves and floats in the water, the pulse under the finger moves to and fro. That lotus gati is a very sacred pulse, indicating that the person is enlightened. The thousand petal lotus is open. The pulse is broad but moves to and fro, as if constant "so-hum, hum-sa" is moving in the breath. This pulse is present during deep meditation and indicates enlightenment and a blissful state.

Feeling the pulse is an art. Awareness should be passive. One should let that awareness act upon the mind. Use the tips of the fingers to feel the nature or *gati* of the pulse. Sarpa gati (the cobra pulse) is a normal  $v\bar{a}ta$  pulse. Mandūka gati (the frog pulse) is a normal pitta pulse. Hamsa gati (the swan pulse) is a normal kapha pulse. These are the three basic pulses that one should bear in mind.



For diagnostic purposes, nadi should not be felt soon after bathing, eating, sex, oil massage, sweating or during thirst, hunger or physical activity.

Ayurveda is a subjective as well as an objective science. A computerized machine to study the  $n\bar{a}di$  has been devised. To use a machine as a diagnostic tool is all right to quantify perception but to qualify perception requires the sensitivity of the human fingers. Certain subtleties about whether the pulse is hot, heavy, light, or  $v\bar{a}ta$  is pushing *pitta* or *pitta* is blocking  $v\bar{a}ta$  are difficult to represent graphically. To have a machine will satisfy some people, but we should program our highly developed human computer, which is our brain, and improve the sensitivity of these beautiful electrodes in the fingertips. When one starts feeling a *mandūka gati*, *hamsa gati* or *jalauka gati*, a memory is stored in the finger as well as in the brain (see illustration on page 16). Through the receptors in the fingertips one can perceive these characteristics of different pulses. Once one knows how to perceive, one will begin to gain insight and mastery over the pulse.

Practice these three basic pulses on friends and family and try to become aware of the subtle differences of each individual.

#### Vega (Rate)

There are several qualities of the pulse which are relatively gross, easy to read and yet important. One of these qualities, practiced both in Ayurveda and in modern allopathic medicine, is *vega*. It means the rate of the pulse, the number of beats per minute. *Vega* varies due to exercise, anxiety or excitation. To get an accurate resting pulse, take the pulse in the early morning in a restful condition. *Vega* is normally high in *vāta*, moderate in *pitta* and low in *kapha*. Feel the pulse for one minute and count the number of pulsations.

Vāta	80-95 beats per minute
Pitta	70-80 beats per minute
Kapha	50-60 beats per minute

The pulse rate is high in certain pathological conditions. For example, in anemia the blood volume is low and the tissues need more oxygen, so the heart increases its rate to provide optimum oxygen to the tissues. *Vega* is also increased in cardiac failure, thyrotoxicosis or hyperactive thyroid gland. Thyrotoxicosis is confirmed by reading the pulse while the person is asleep. In this disease, the pulse is high even in a deep sleep. Tall people have slower heart rates and short people have faster heart rates. Children also have higher rates, about 90 - 100. The more height, the slower the rate; the lower the height, the greater the rate. So rate is inversely proportional to height. In older people the rate is slower. Old age is the age of  $v\bar{a}ta$  and in old age  $v\bar{a}ta$  is tired. The light and rough qualities of  $v\bar{a}ta$  weaken the

strength of *prāna vāyu* and *vyāna vāyu*, leading to a slow physiological pulse.

Table 4: The Milestones of Age Influencing the Pulse		
Infancy and childhood up to 16 years of age	Kapha is predominant in the pulse.	
Adult (age 17 - 50)	Pitta is predominant in the pulse.	
Adult (age 51 - 70)	<i>Pitta</i> is predominant in the pulse with gradually increasing <i>vāta</i> .	
After age 70	Vāta is predominant in the pulse.	

As discussed earlier,  $v\bar{a}ta$  makes the pulse rate fast, *pitta* is moderate and *kapha* is slow. This law applies when *dosha* is governing *vega*. But *vega* also varies physiologically and according to height and weight. The *vega* of the *nādi* pathologically becomes high in anemia, congestive heart failure, infection and fever. When there is infection, the body sends more blood to the affected area. All these conditions must be taken into consideration in order to understand whether the *vega* in the individual is normal or not. The moment a doctor with a white coat and stethoscope comes close, the patient's rate increases. So it is better to feel the *vega* at the beginning and at the end of the examination in order to get an accurate reading.

There is only one condition where there is infection with a slow *vega* and that is with typhoid fever. In this condition a person has a high continuous fever for several days but the pulse rate is slow, bradycardia. This is a unique condition. A furry tongue centrally coated with red margins, high fever and a slow pulse is a classic picture of typhoid fever.

When some individuals inhale, the pulse rate becomes fast and, on exhalation, the pulse rate slows down. During inhalation the blood rushes from the lungs into the left chambers of the heart, causing the pulse rate to rise. During exhalation the blood from the right ventricle is pushed into the lungs. This alternation of the pulse rate is called sinus arrhythmia. It is not a pathological condition.

Sinus Arrhythmia Pulse

Remember, the slower the pulse rate, the slower the metabolism and the faster the pulse rate, the faster the metabolism. Metabolism is governed by *agni*. When *agni* is strong, the pulse is relatively fast, light and hot. If *agni* is slow, the pulse is slow, heavy and cool. In this way the quality of *agni* can be understood through a general examination of the pulse.

#### Tāla (Rhythm)

 $T\bar{a}la$  is rhythm, which is defined as the time interval between two consecutive or successive uplifts. In balanced, healthy and normal  $t\bar{a}la$ , the time interval is regular, uninterrupted and rhythmic. This balanced  $t\bar{a}la$  reflects in the synchronization of function of  $pr\bar{a}na \ v\bar{a}yu$ ,  $vy\bar{a}na \ v\bar{a}yu$ , avalambaka kapha and  $s\bar{a}dhaka \ pitta$ . When  $v\bar{a}ta$  is out of balance, it will create irregularity in the pulse. In irregularity, when kapha is blocking  $v\bar{a}ta$ , the rhythm will be regularly irregular. For example, every third or fourth beat is missing. Kapha blocking  $v\bar{a}ta$  means that the force of kapha dosha, because of some imbalance, is inhibiting the normal activity of  $v\bar{a}ta$ . Kapha can block  $v\bar{a}ta$  and pitta and kapha.

An irregularly irregular  $t\bar{a}la$ , a very crazy pulse, involves both  $v\bar{a}ta$  and *pitta*, because both are mobile. This irregularly irregular pulse is present in atrial flutter with fibrillation. *Pitta* blocking  $v\bar{a}ta$  would be irregularly irregular. In addition, when  $v\bar{a}ta$  is blocking  $v\bar{a}ta$ , the pulse is fast, feeble and irregularly irregular.

#### Bala (Force)

Bala is the force or pressure of the pulse. Press the artery with the three fingers. According to Newton's third law of motion, action and reaction are equal and opposite. The amount of force pressing on the blood vessel is being exerted back onto the fingers. That is called force, *bala*. But remember, force is equal to the difference between systolic and diastolic pressure, which produces a ratio called pulse pressure—PP.

Suppose systolic blood pressure is 120 and diastolic is 70. The difference between these two numbers is 50, which is a normal pulse pressure. But in the person with a water hammer pulse, the systolic pressure is 200 and the diastolic is 30, leading to a PP of 170, which is very high. When the pulse pressure is high, the heart is working under great stress.

In exactly the opposite condition, if the systolic is 70 and the diastolic is 60, the pulse pressure is only 10. This person doesn't receive enough  $pr\bar{a}na$  or oxygen to the brain. If pulse pressure is very feeble, the person becomes dizzy, may experience transient loss of consciousness and even shock. So *bala* corresponds to the pulse pressure, PP. *Bala* is very low in  $v\bar{a}ta$ , high in *pitta* and moderate in *kapha*.

There is much confusion about bala and how firmly the artery should be pressed in order to feel the force of the pulse. The amount of pressure will vary with the individual, depending upon *prakruti* and the volume of blood in the radial artery. Quantitatively, high bala is represented by three plus (+++), low by one plus (+), moderate by two plus (++). Plus has only a relative meaning here-full and bounding is high, and is represented by a three plus. So the systolic blood pressure corresponds to the volume, which is the uplift given to the palpating finger. If deep pressure of the finger is necessary in order to stop the artery, that means the force is strong. Moderate pressure indicates the force is moderate. If superficial pressure causes the pulse to disappear, the force is low. The deeper the pressure used to stop the artery, the higher the force. The pulse of an obese person is hard to read because of the adipose tissue, but once you feel it, the *bala* is usually moderate.

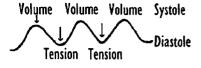
#### Ākruti (Volume and Tension)

*Akruti* means volume and tension. Volume is experienced as the uplift to the palpating finger. It is not necessary to depress the radial artery. Just feel the uplift while the fingers rest lightly on the artery. The volume of the pulse corresponds to the systolic blood pressure (the amount of blood that is propelled or pumped out during a ventricular systole). If volume is high, the systolic blood pressure is high. If volume is low, the systolic blood pressure is low. In this way the Ayurvedic physician reads blood pressure without using a sphygmomanometer. With high volume, a large amount of blood is propelled through the arterial and venous systems. *Pitta* has such high volume that it lifts the fingers. In congestive heart failure, the volume is low. In extremely low blood pressure, for example, anemia and dehydration, the volume is low.  $V\bar{a}ta$  people also have low volume and *kapha* people have moderate volume. In a patient suffering from shock, there is sudden low blood pressure, perspiration and unconsciousness. Pallor, perspiration, pulselessness and falling blood pressure are the cardinal signs of shock.

The fullness of the blood vessel depends upon water intake, the quality of rasa  $dh\bar{a}tu$  and the volume of the blood. If a person has good volume of the blood and optimum rasa  $dh\bar{a}tu$ , the veins are prominent. Vāta people, who usually do not have sufficient fat, have prominent veins but thin arteries. In contrast, chubby kapha individuals have thin veins but broad arteries. That's why in severe anemia, dehydration and blood loss, the veins are collapsed and thin.

In order to feel volume, try to press the artery gently and feel the throb pushing against the fingers. An intense throb is three plus (+++) volume. If volume is low or one plus (+), it can barely be felt. This grading system is relative to the person and the individual *prakruti*. If throbbing is very prominent in the middle finger, the volume is good or three plus, *pitta*. If throbbing is felt under the ring finger, it is moderate volume, which is *kapha*. If throbbing is barely felt under the index finger, the volume is low, *vāta*. Don't press too hard, just go in between. If volume is really strong, the middle finger will be jumping. That's why a *pitta* pulse is described as jumping like a frog. Amplitude is high and higher amplitude is higher volume. Lower amplitude is lower volume, which is *vāta*.

Tension is felt by pressing the ring finger to stop the pulsation of the radial artery and then feeling the tension under the middle and index fingers, as if the blood vessel is a rubber tube full of water. Tension is the pressure between two uplifts, diastolic pressure. It is the constant pressure of



blood in the artery, the diastolic pressure, felt by the middle and index fingers. Although there is no propelling of the blood through the artery, the vessel is never empty. If the vessel is empty, life is empty and the patient is in shock. Tension is maintained by *vyāna vāyu* and *avalambaka kapha*, while volume is maintained by *prāna vāyu* and *ranjaka pitta*. *Ranjaka pitta* is hot and it expands the blood vessel. *Prāna* creates pulsation. *Avalambaka*, which is present in the heart, maintains the constant pressure of the blood vessel. To describe *ākruti* fully, one has to determine both volume and tension.

We can make some interesting clinical observations regarding volume and tension. If a person with *pitta prak-ruti* has a very slow pulse rate, like 55, but the tension of the pulse is high, he may be taking a beta-blocker for high blood pressure. Beta-blockers may increase *kapha dosha* in the *rasa dhātu* which reduces the pulse rate and brings down the blood pressure but may block the bronchial tree by producing congestion.

There is one pulse, called the water hammer pulse in modern medicine, where the volume is high but the tension is low. This pulse has high systolic blood pressure, about 200, but the diastolic is only about 30. Such a vast difference between diastolic and systolic blood pressure creates a collapsing pulse. In modern medicine this pulse is connected to aortic regurgitation. In this condition the blood goes back from the aorta into the left ventricle and vibrates. There is a diastolic murmur best heard at the aortic area. If the hand is raised, the throbbing, collapsing nature of the pulse is still felt. This pulse is very characteristic where there is increased pulse pressure so that even the capillary pulsation is prominent. This condition is further evidenced when pressure on the fingernail causes one portion to be white and one portion to be pink. Because of the increased capillary pulsation, the red part encroaches on the white part. Evidence of capillary pulsation can also be seen on the tongue. Press the tongue with a glass slide. An area of

cating aortic regurgitati on.  $\sigma_{\rm c}$ **Collapsing Pulse or** 

Capillary Pulsation. Press the tongue with a glass slide and an area of blanching will be visible with each systole of the heart. This indicates aortic regurgitation.

Raise the hand of the patient and grasp the wrist as shown above. A collapsing sensation will be felt after each systole of the heart.

Water Hammer Pulse

## Tapamāna (Temperature)

Tapamāna means temperature. A vāta pulse is cold, pitta is hot and kapha is warm to cool. When vāta dosha is moving through the rasa dhātu, the pulse becomes cold. There is a relationship between the gati of the pulse, the wave of the pulse, the temperature of the pulse and the agni or gastric fire and metabolic fire of the individual. When the pulse is cold, fast and light, it means vāta is high and agni is low-vishama agni. But in pitta, when the pulse is hot, sharp and light to the touch, there is high agni-tikshna agni. Therefore, tikshna agni can bring hot, sharp and light qualities to the *pitta* pulse and *vishama agni* can convey light, fast and feeble qualities to the vāta pulse. See table on page 24.

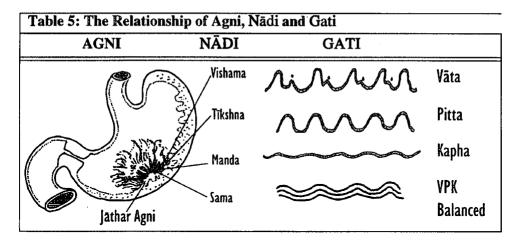
blanching will be visible with each systole of the heart, indi-

# Kathinya (Consistency of the Vessel Wall)

The consistency of the vessel wall, felt by rolling the artery between the palpating finger and the radial bone, is called kāthinya. Palpating in this way reveals whether the

vessel wall is thick or thin, elastic or plastic, rigid, hard or rough.

If  $v\bar{a}ta$  is high, its rough and hard qualities cause the blood vessels to be rough and hard and may manifest as arteriosclerosis. Because of these changes, the blood vessels narrow and there is insufficient blood supply to the brain and other organs. This condition can also lead to Alzheimer's syndrome, which is a slow death of the brain cells. In high *pitta* the blood vessels are elastic but become fragile, creating a tendency to bruise easily. In some individuals, high *pitta* can cause pressure on the nerves leading to migraine headache. There is also the possibility of capillary hemorrhage, causing the blood vessels to bleed. In high *kapha* the blood vessels become broad and thick because *kapha* is broad and thick. The deposition of fat on the wall of the blood vessel (a *kapha*-like substance) can lead to atheroma, which is one of the causes of hypertension.



These are the seven important conditions to be observed in reading the  $n\bar{a}di$ . Using the  $n\bar{a}di$  table (page 14) as reference, face a partner and read the pulse for one minute. Practice reading the pulse on only one hand, the right hand on the male and the left hand on the female. Facing each other, take the pulse of the subject's left hand with your right hand and vice versa. Never cross the auric field. Feel the pulse from the outer or thumb side of the radial bone. Try to read the *vega*, speed per minute; the *gati*, manner the pulse moves; the  $t\bar{a}la$ , rhythm; the *bala*, force; and then the  $\bar{a}kruti$ , *tapamāna* and  $k\bar{a}thinya$ .

I like thinking about all animals being in their homes. When a happy and cheerful cobra is felt under the index finger, a very mellow and easy-going frog is felt under the middle finger and a happily swimming swan is under the ring finger, that person is a happy and healthy human being. However, in cases of imbalance, a frog may be felt under the index finger, where one should feel a cobra. The frog is chasing the cobra, which means *pitta* is blocking  $v\bar{a}ta$ . Perhaps under the middle finger one feels a cobra instead of a frog. Visualize the cobra chasing the frog, which means  $v\bar{a}ta$  is pushing *pitta*. These are only two observations of many that can be made.

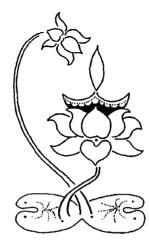


Table 6: Examples of Gati and Their Conditions		
	GATI	CONDITIONS
······	Sarpa gati (Cobra)	Normal vāta pulse
$\sim$	Mandūka gati (Frog)	Normal pitta pulse
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Hamsa gati (Swan)	Normal kapha pulse
mm	Jalauka gati (Leech)	Arthritis, gout
<b>&amp;</b>	Krumi gati (Worm)	Parasites, worms
*** **** \ _ ~ ~ ** \ _ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	Pippīlika gati (Ants)	Terminal illness
nn	Mayūra gati (Peacock)	Arterial hypertension, high cholesterol
	Tittiraka gati (Partridge)	Gastric ulcer, enteritis
m	Lāvaka gati (Quail)	Prostatitis, cystitis
MM	Kāka gati (Crow)	Aortic regurgitation, heart condition
	Kapota gati (Pigeon)	Bronchial asthma

Table 6: Examples of Gati and Their Conditions			
	GATI	CONDITIONS	
rrr	Kukkuta gati (Cock)	Diabetes, albuminuria	
m	Ushtra gati (Camel)	Aortic stenosis, rheumatic valvular heart condition	
mm	Gaja gati (Elephant)	Lymphatic obstruc- tion, solid edema, lymphosarcoma, elephantitis	
$\sim$	Girija gati (Mountain)	Heart block, bundle branch block	
rinnin	Vishama gati (Irregular)	Pulsus alternans, atrial fibrillation	
	Damaru gati (Vibrating like a drum)	Fatal illness, renal failure, shock	
AAA	Padma nādi (Lotus)	Perfect health, enlightenment	

सर्प जलौकादिगति वदन्ति विबुधा प्रभंजने नाडी । पित्तेन काक लावक मण्डूकादेस्तथा चपलाम् ॥ राजहंस मयूराणां पारावत कपोतयोः । कुक्कुटस्य गतिं धत्ते धमनी कफसङ्गिनी ॥ यो. र.

The movements of the cobra and leech are said by the wise to belong to vāta dosha. Those of the crow, quail and frog denote pitta dosha. The swan, peacock, cock and pigeon show kapha dosha in the pulse.

Yoga Ratnakar



# Prakruti and Vikruti

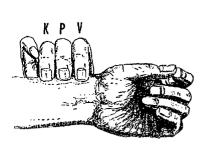
# Balance and Imbalance Levels Seven and One

सर्वे शरीरचरास्तु वातपित्तस्ठेष्माणः सर्वस्मिञ्छरीरे कुपिताकुपिताः शुभाशुभानि कुर्वन्ति

च. सू. २०:९

Vāta, pitta and kapha move in the whole body producing good or ill effects upon the entire system according to their normal or provoked states. Their normal state is prakruti and their abnormal state is vikruti.

Ca. Sū. 20:9

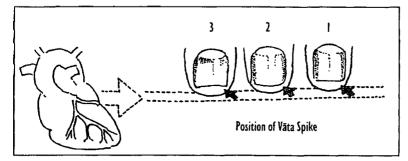


 $V\bar{a}ta$ , pitta and kapha move in the blood through the rasa and rakta dhātus. It is an interesting fact that the doshas are best felt under specific fingers. We feel the qualities of  $v\bar{a}ta$  best under the index finger because the nerve receptors in that finger best perceive those qualities embraced by  $v\bar{a}ta$ —light, subtle, mobile, dry, rough—and the same is true for pitta and kapha owing to their respective qualities.  $V\bar{a}ta$  is always the distal finger (the finger farthest from the heart) wherever the pulse is palpated, whether it is the wrist, ankle, groin or elsewhere.

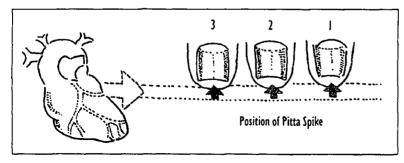
Even though the gross manifestation of the three *doshas* are perceived under the index, middle and ring fingers, their subtle qualities are felt under each finger at the distal, middle and proximal curvatures.

While feeling the pulse, the most subtle *dosha* is  $v\bar{a}ta$ . It is light, mobile and subtle. With very little pressure the flow

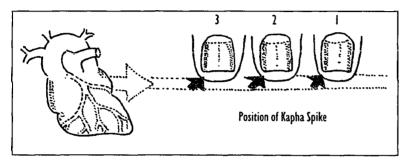
can be blocked. Even if  $v\bar{a}ta$  is partially blocked by the finger, its subtlety will not create a spike at the proximal curvature of each palpating finger. It will easily go through to find space to expand and create a spike at the distal curvature as shown in the picture. Laghu means light and vikasi means expansive. Vāta is both laghu and vikasi.

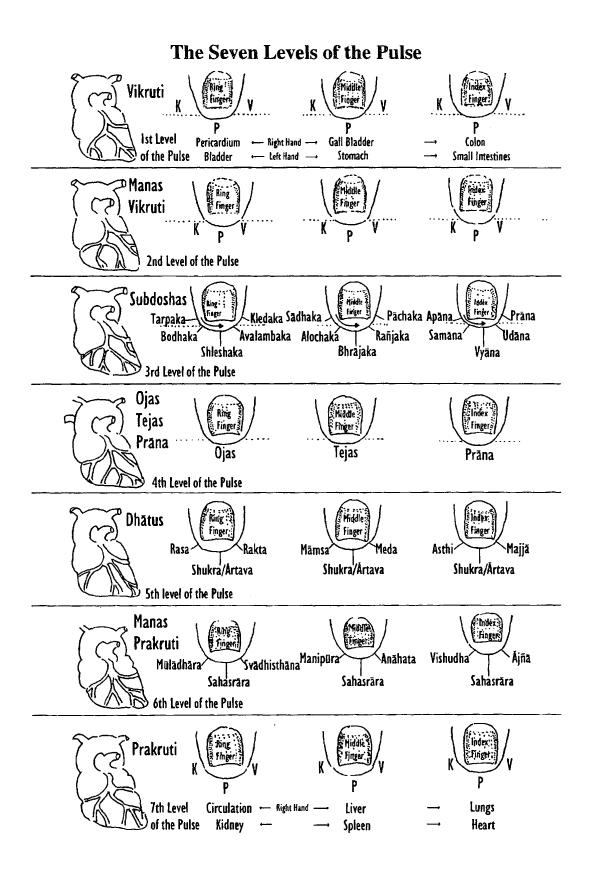


The second dosha is pitta. Like  $v\bar{a}ta$  it is also laghu, light, but it is liquid and substantial in nature while  $v\bar{a}ta$  is light and empty. However, because of the laghu and drava (liquid) qualities of pitta, the pitta spike will be felt at the middle curvature of each of the three fingers.



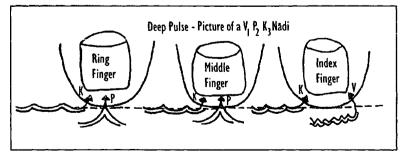
Kapha is guru (heavy), sthira (static) and manda (slow). Because of these qualities, kapha stops at the site on the finger closest to the heart and creates a spike at the proximal curvature.





 $V\bar{a}ta$  is faster and moves ahead to the distal curvature. *Pitta* is next and moves to a position next to  $v\bar{a}ta$ . Kapha is very slow and stops at the proximal curvature. The curvature of the finger is a sensitive instrument, placed directly on the pulse to feel the throb. The art of pulse reading is very subtle and Ayurveda teaches us to be aware of the nature of body, mind and consciousness of the individual and the quality of the spikes felt under each finger separately.

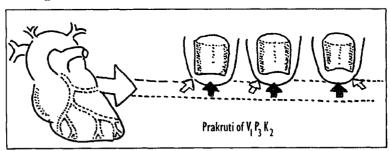
We have discussed the spikes of vāta, pitta and kapha and how they manifest through the pulse. It is convenient to divide the reading of the radial pulse into seven levels and we will examine each of these levels separately (see page 31). At this point we will move our attention to prakruti and vikruti and how to read them on the seventh and first levels of the radial pulse. To avoid confusion, be aware that the locations of prakruti and vikruti are referred to in several ways-levels seven and one, deep and superficial, balance and imbalance. Prakruti is one's basic constitution. established at the time of conception, and is read at the seventh, the deepest level. Vikruti is our present state and is read on the first or superficial level of the pulse. Ayurveda says that in some individuals the *prakruti* may be  $V_3P_3K_3$ , which means that all doshas are present equally, but few people are born with this ideal prakruti, called sama prakruti. Most people have some combination or variation of the ideal such as  $V_2P_1K_3$  or  $V_1P_2K_3$  These numbers indicate relative ratios of the *doshas* present in that individual. If there is no "3" in the reading, it indicates the person was born with a depleted dosha, called dosha kshaya. Kshaya means diminished, deteriorated or deficient.



When the deep pulse corresponds to the superficial pulse, that person is healthy and balanced. Our present status and our *prakruti* should be identical. If a person's *prakruti* shows  $V_2P_3K_1$  and the superficial reading at the first level is the same, that person is balanced. Every individual's balanced state will vary according to his or her constitution.

Some say that the right hand pulse of a man and the left hand pulse of a woman will give the most accurate readings. Others say that both the pulses should be felt, but first master one side. Feel the throb of life under the fingers. Try to evaluate, try to determine the relative presence of  $v\bar{a}ta$ , *pitta* and *kapha*. When the pulses on the right and left sides of the body are just about equal, the male and female energies are balanced and  $vy\bar{a}na v\bar{a}yu$  is moving the *doshas* equally on both sides. In some individuals  $vy\bar{a}na v\bar{a}yu$  pushes a *dosha* more on the right side and the right side pulse will be more prominent than the left or vice versa. The pulse may become feeble on one side due to previous surgery on the forearm or from a lymph node pressing the main blood vessel.

If *pitta* is strong, a spike at the *pitta* position will be felt under all three fingers—*pitta*<sub>3</sub>. If  $v\bar{a}ta$  is feeble, only one spike at the distal position will be noted. If *kapha* is relatively strong, it will create a spike at the proximal position on two fingers. This information will show  $v\bar{a}ta_1$ , *pitta*<sub>3</sub>, *kapha*<sub>2</sub>, which is the *prakruti*—i.e., V<sub>1</sub>P<sub>3</sub>K<sub>2</sub>.



There are a number of situations that may lead to an inaccurate reading of the pulse. Sometimes the three fingers are not at the same level. If the ring finger and middle finger press deeply but the index finger is less deep, the reading will not be accurate. In addition, if the finger is directly on the radial tubercle, the index finger may not get a throb.

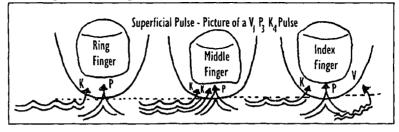
First, individual perception must be ruled out as the cause of an inaccurate reading. Sometimes the appearance of a person can be deceiving. Though the person may look like a healthy, chubby *kapha* person, the thick subcutaneous fat may cover the true sensation of the pulse. If someone is prematurely born, that person may have a *prakruti* reading of  $V_1P_1K_1$  or other factors, such as umbilical strangulation, may affect the reading. But this is not *prakruti*. It is called *vikruti* encroaching *prakruti* and in these patients it is very difficult to read the real *prakruti*. In a situation such as this, asking the patient questions will be helpful.

Meditate upon each finger and feel where the spikes are located. In practice we have to be still and observe. Pulse reading needs persistent, prolonged practice and it is practice which makes one perfect. This is a technique, but unless it is digested and understood, insight will never come. Insight is a product of practice and, through repeated practice, this art of pulse reading will develop.

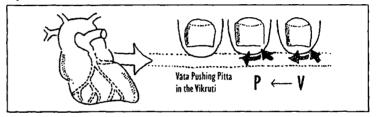
At this point, select someone to practice on and press the radial artery of either the right or left side deeply enough to cut off the pulsation. Release slightly, just to the point where the pulsation returns. This is the seventh level, the level of *prakruti*. Now feel for the throb of  $v\bar{a}ta$ , *pitta* and *kapha*. Count the number of throbs at the  $v\bar{a}ta$  site at the distal curvature of the index, middle and ring fingers. Then feel for the number of *pitta* throbs in the middle of each of these three fingers. Next count the number of throbs at the *kapha* site at the proximal curvature.



Earlier in this chapter we introduced the seventh level of the pulse which is *prakruti*, the level of the physical constitution. Now we will switch our attention to *vikruti*, the current physical *doshic* state at the first level of the pulse. *Prakruti* is defined as the relative presence of  $v\bar{a}ta$ , *pitta* and *kapha* at conception. *Vikruti* is the deviation, either quantitatively or qualitatively, of the *doshas* from *prakruti*, the state of the individual's balance. This change can be mild over a long period of time or great over a short one. Choose a partner and try to read *prakruti* once again. Go to the seventh level and determine the reading of  $v\bar{a}ta$ , *pitta* and *kapha* on the index, middle and ring fingers. Then release the pressure on the radial artery and come to the superficial pulse to find out *vikruti*. At this level, again read  $v\bar{a}ta$ , *pitta* and *kapha* on the index, middle and ring fingers. In some people there may be provocation of  $v\bar{a}ta$  or provocation of *pitta*. For example, with a *prakruti* of V<sub>1</sub>P<sub>3</sub>K<sub>2</sub>, some persons may have K<sub>4</sub> or V<sub>3</sub> in the *vikruti*. In other words, at the superficial level, one of the *doshas* may show a stronger relative presence.



Remember the earlier discussion (page 10 of Chapter 1) about the characteristics of the spike. Feel the radial pulse of the subject at the superficial level. When checking the vikruti, the quality of the spike is very important in determining the state of imbalance. Spikes at the kapha position may be felt on all three fingers. But in the superficial pulse there may be an extra spike in the *pitta* region which resembles kapha. That's why kapha is counted as four in the above example. Also remember the quality of the vāta spike, which is very quivery. There may be an extra vāta spike in the superficial pulse either under the ring finger, the middle finger or the vāta finger. If vāta appears under the middle finger at the pitta spike, that means vāta is pushing pitta in the vikruti. Half a dosha will never be read in the prakruti, only in the vikruti.



There are many subtleties in the pulse. A description of a tree is not the tree. A description of a pulse is not the

pulse. We are trying to bring subjective experience to the objective level, which is most difficult to do. There are many things to be taken into consideration. The quality of the spike and the sensitivity of the finger should be observed. Don't accept only what is written here but believe in your own perception. The reading depends upon subjective observation and the quality of perception. Many times, when reading the pulse of a subject, we will observe that two examiners arrive at different diagnoses from one another. It is a matter of perception and experience.

When I read the pulse, I do so-hum meditation. So-hum is a great *mantra*. My guru told me to inhale "so" and exhale "hum" and go into the space between "so" and "hum" and "hum" and "so." Breathe in "so" and take the breath deep inside behind the belly button with the inhalation. Stay a moment in that pause. "Hum" goes out with the breath to about nine inches away from the nostrils, where there is a second pause. Feel the pulse in that pause. Reading the pulse is the greatest meditation. Start reading the pulse by doing so-hum meditation for a few minutes and then bow to the patient. Reading the pulse is like reading that person's book. "Look" into the third eye of the subject, feel the pulse and then close the eyes and meditate with sohum breath. Stay either in the outer or inner pause, feel the pulse and find the position of the spike.

The Ayurvedic art of learning is more than mechanical or technical. Technique is a small part, but perception, sensitive observation and awareness are very important. For example, when you and I look at an object, we look from different angles. When our perception is on the same level, at the same time, with the same intensity and on the same platform, then we will perceive the same object and our observations will go hand in hand. However, there will still be personal differences. That doesn't mean that one person is wrong but, in the case of reading the pulse, that person may be on a different level. *Prakruti* pulse is the seventh level and, if one examiner comes only to the sixth level, readings will be different. Even though there are differences of perception, it is also possible that two examiners may be reading the pulse at different levels.



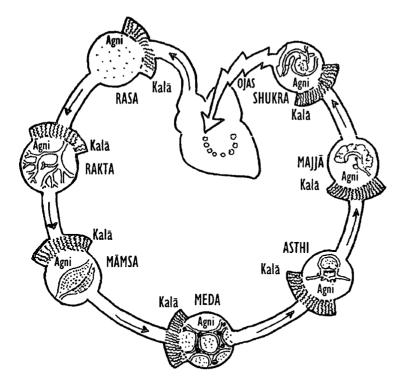
# Organ Pulses

Levels Seven and One

# Kalā

In order to deepen our understanding before we discuss the organ pulses, we must consider the concept of  $kal\bar{a}$ . There are seven  $dh\bar{a}tus$ —rasa, rakta, māmsa, meda, asthi, majjā and shukra/ārtava—and each  $dh\bar{a}tu$  has its own  $kal\bar{a}$ . A  $kal\bar{a}$  is a membranous structure that maintains the nutrition, transformation and maturation of a  $dh\bar{a}tu$ . The  $kal\bar{a}$ contains the agni of that particular  $dh\bar{a}tu$ . The rasa  $dh\bar{a}tu$  or plasma and the rakta  $dh\bar{a}tu$  or red blood cells are separated by a  $kal\bar{a}$ . Plasma cells, red blood cells, muscle cells, adipose cells, the cells of the bone, even the cells of the bone marrow and majjā  $dh\bar{a}tu$ , the nerve cells, have a membranous structure, a sheath or  $kal\bar{a}$ . Within that sheath there is the respective  $dh\bar{a}tu$  agni which maintains the unique metabolism of each  $dh\bar{a}tu$ .

Unprocessed rasa dhātu is transformed into processed rasa, immature rakta and also into the by-products of rasa stanya (lactation) and rajah (menstruation)—along with kapha as a dhātu mala. Each dhātu follows a similar pattern from unprocessed dhātu to processed dhātu, by-products and malas. The kalā is a protective barrier and in addition contains enzymes or dhātu agni. A kalā also contains the prāna, ojas and tejas of that respective dhātu. If the dhātu agni within each respective kalā undergoes an increased or decreased condition, it may cause atrophy or hypertrophy of



Kalā in Relation to Dosha

that particular  $dh\bar{a}tu$ . If the agni of that  $kal\bar{a}$  is low, there is undue accumulation of raw  $dh\bar{a}tu$ . If  $kal\bar{a}$  agni is high, the  $dh\bar{a}tu$  will be emaciated.

Ayurveda says shukra dhārā kalā, the kalā which nourishes shukra dhātu, the male reproductive tissue and ārtava dhātu in the female, is present all over the body. When one touches someone with feelings of sex, it stimulates the agni of that kalā and activates sperm or ova. The entire body is covered by shukra or ārtava dhārā kalā which produces ojas. Too much sex depletes ojas, which can then diminish the body's immune mechanism.

The Sanskrit word srotas or srotamsi (plural) means channel. Every  $dh\bar{a}tu$  has its srotas or channel and the root of the srotas is present in the kalā. Kalā is not an imagined, intellectual, poetic concept but is an actual membranous structure. Each  $dh\bar{a}tu$  has its own intelligence which is present within that membrane. The nucleus has a membrane, each gene has a membrane and even each individual cell has a membrane. The membranous structure of the genes and RNA/DNA molecules have their subtle kalās in which are carried the memories of our ancestors' illnesses. Kāla means time. When food is eaten,  $\bar{a}h\bar{a}ra\ rasa$  (chyle), the food precursor for cellular nourishment, is produced within six to eight hours. Within 24 hours immature rasa dhātu is created from  $\bar{a}h\bar{a}ra\ rasa$ . The time required for rasa dhātā kalā to transform  $\bar{a}h\bar{a}ra\ rasa$  into mature rasa dhātu is five days. Rakta dhātu needs 10 days and māmsa dhātu requires 15 days. Likewise, it takes 35 days, one month and five days, for shukra dhātu to receive the benefit of nutrition from food previously eaten. That is why kāla also means nutritional time and why sex should occur only once in a month. Milk is the highly superfine essence of the rasa dhātu of the cow and milk is transformed into shukra within 24 hours. Hence, an Ayurvedic sutra says, "Milk nourishes shukra on the same day."

Every organ has a mucous lining that maintains the normal function of that particular organ and this lining is also called kalā. Āshaya means vessel. The stomach is a vessel of undigested food called  $\bar{a}m\bar{a}shaya$ . Every  $\bar{a}shaya$  has a kalā. The stomach or  $\bar{a}m\bar{a}shaya$  has a gastric mucous membrane called shleshma dhārā kalā. The small intestine has an intestinal mucous membrane called pitta dhārā kalā. The colon has a colon mucous membrane called purisha dhārā kalā. These mucous membranes are protective coverings.

When hot food is eaten—for example, hot cayenne pepper or curry pepper—it stimulates the production of hydrochloric acid, the  $kal\bar{a}$  of the stomach dissolves and, in dissolving, stimulates more production of *kledaka kapha*. Within three to six hours a new mucous membrane lining, called *shleshma dhārā kalā*, is formed. *Shleshma* means *kapha*. So the gastric mucous membrane, *shleshma dhārā kalā*, produces gastric mucous secretion, which is *kledaka kapha*. This process is true for any *kalā*.

The colon mucous membrane functionally corresponds to the periosteum. It is the colon mucous membrane which nourishes the periosteum, because the colon is the organ that absorbs minerals, such as calcium, magnesium and zinc. The malfunction of any kalā creates  $\bar{a}ma$  in that particular  $\bar{a}shaya$  or  $dh\bar{a}tu$ . The main center of digestion and the most important agni is the gastric fire, jāthar agni, present in the stomach or  $\bar{a}m\bar{a}shaya$ . Sometimes an individual may

सद्यः शक्रकरं पयः ।

Milk nourishes shukra on the same day.

have strong jāthar agni but weak dhātu agni and this condition can directly create āma in the dhātu.

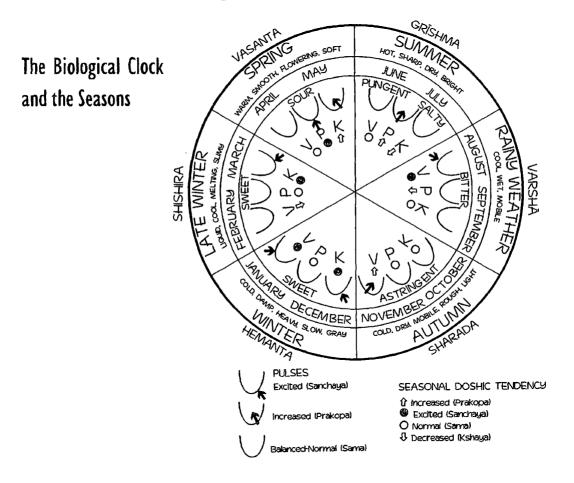
The root of all disease is weak *agni* which leads to the formation of  $\bar{a}ma$  and there are many causes for its development.  $\bar{A}ma$  develops whenever the function of *agni* is impaired. For example, whenever incompatible foods are ingested,  $j\bar{a}thar agni$  will be directly affected and  $\bar{a}ma$  or toxins will be created from these poorly digested foods. Hyperactive *agni* also affects the digestive process through overcombustion, and emaciation and lowered immunity result.

The kalā in the gastrointestinal tract maintains the function of jāthar agni and the functional aspect of dhātu agni is maintained by dhātu kalā. There is functional integrity between the kalā in the GI tract and the kalā in the dhātu. If jāthar agni is low and āma is produced, that āma can go into the dhātu and affect the dhātu agni.

Ama is created by the malfunction of any dhatu kala. For example, āma is created by the gastric mucous membrane when it is not properly secreting digestive enzymes and kledaka kapha. The agni is low and āma will be formed. *Ama* is not always created in the stomach. It can be created in the colon because of constipation or in the individual dhātu because of low dhātu agni or infection. Āma can be created in the liver or gallbladder because of repressed emotions such as anxiety, insecurity, nervousness, fear or anger. This condition is called mental *āma* stored in the *dhātu* or organs. Ayurvedic herbology discusses how each herb has a specific action on each dhātu agni or kalā. For example, ginger stimulates rasa dhārā kalā, manjishthā works on rakta dhārā kalā, ashwagandha activates māmsa dhārā kalā, kutki acts on meda dhārā kalā. There is a logical order in Ayurvedic anatomy, physiology and herbology.

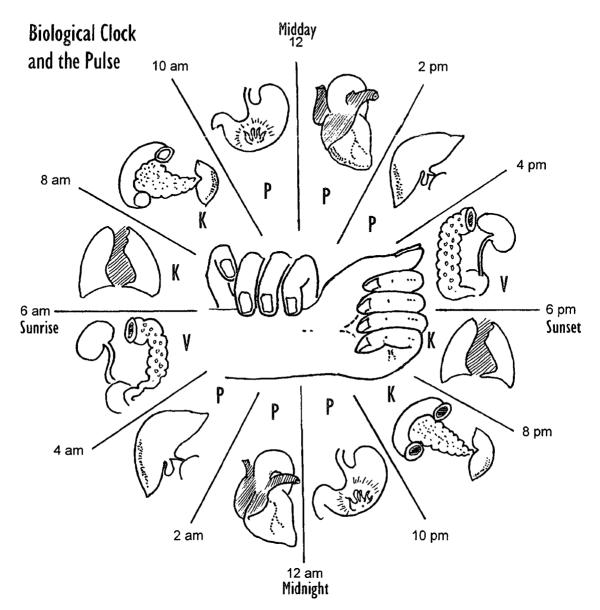
#### Seasonal Time

Time is movement, both within and without. The rotation of the earth and its movement about its axis are responsible both for sunrise and sunset, creating chronological time, and for the seasons, creating seasonal time. The season is called *rutu*. In Ayurvedic literature there are 6 basic *rutus* in the year: *vasanta, grīshma, varshā, sharada, hemanta* and *shishira*. Each season has specific qualities that can influence the bodily *tridosha*. For instance, spring increases *kapha dosha*, may stimulate *pitta* and can normalize *vāta*, as shown in the illustration below. The qualitative seasonal variations can produce qualitative *doshic* changes in the pulse. So one can pay attention to the season by reading and experiencing the excited, increased, decreased or normal spike of the *dosha*.



# The Biological Clock and the Pulse: A Symbolic Representation

Each  $dh\bar{a}tu$  has a time of day when its functional activity is at a peak. One could think of this as the organs' bio-

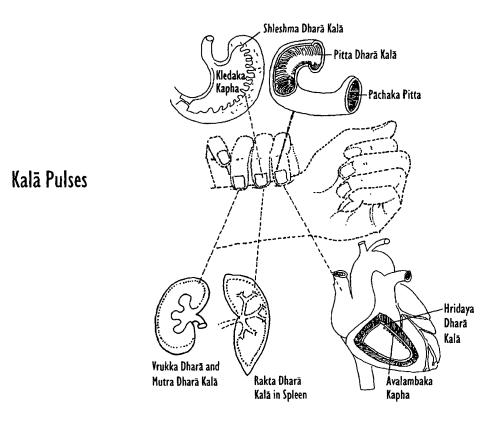


logical clock, which moves with chronological time.  $K\bar{a}la$  means time and  $kal\bar{a}$  means membranous structure. As we studied earlier, every  $dh\bar{a}tu$  has a  $kal\bar{a}$  which is a membranous structure separating one  $dh\bar{a}tu$  from another. An organ is made up of  $dh\bar{a}tus$ , therefore in this context  $k\bar{a}la$  also means the specific time of the organ. The times of the rising and setting of the sun are chronological time, depending upon the movement of the earth. For example, we tend to think that the sun rises at 6:00 AM, but actually the sun rises

every day at a different time, somewhere between 5:30 and 7:30 in the morning. When we say that the sun comes to the mid-sky, it is noon. We also say that the sun sets at 6:00 PM. But again, this is not fixed timing. Time is movement and time is gradual.

For the convenience of understanding, we will say that at 6:00 AM the sun rises, and therefore from 6:00 to 8:00 is lung time, the two hours following the rising of the sun. That is why a patient of bronchiectesis or mucous problems gets more pulmonary congestion at this time of day and why this is a good time to do  $pr\bar{a}n\bar{a}y\bar{a}ma$ . Lung time is the time of avalambaka kapha.

From 8:00 to 10:00 is the time for *kloma*, which means pancreas, an organ related to *kapha* (*ambu vaha srotas*). It regulates sugar and water metabolism. At 10:00 *pitta* time begins and by noon the stomach and small intestine secrete *pitta* which stimulates hunger. From 12:00 to 2:00 is heart time. The heart is constantly circulating the blood, but the



 $pr\bar{a}na$  energy activates the heart and, after a full meal, a person is more prone to a heart attack. From 2:00 to 4:00 is liver and gallbladder time and a patient of hepatitis or coleocystitis is more likely to have a gallbladder attack during this time period. From 4:00 to 6:00 is colon and kidney time. Adrenal function is low at this time and people often feel tired and want the boost from a cup of coffee to make them feel energetic.

After sunset, from 6:00 to 8:00 PM, is once again kapha and lung time. During that time people have more congestion and a patient of asthma may begin wheezing. From 8:00 to 10:00, pancreas time, people who are hypoglycemic feel like munching before going to bed, because the pancreas becomes active. Once again, 10:00 to 12:00 is stomach and small intestine time and pitta is active. At midnight, because acidity is very high in the stomach, an active peptic ulcer is more likely to create perforation. Then again, 12:00 to 2:00 is heart time. Though the heart is resting, a person may have a heart attack during that time due to consumption of a late dinner. If a person has sex after a heavy meal, he could have a heart attack while making love. After having dinner at 5:00 o'clock, one can enjoy sex in the time frame of 8:00 to 10:00 in the evening. After 10:00 o'clock, one should not have sex but should go to sleep. However, people do not follow the laws of nature. They eat at 10:00 or 11:00 o'clock, go to bed at 12:00 o'clock and then try to enjoy sex. It is disrespectful to the heart. More blood goes to the stomach after a full meal and the heart pumps with more stress. From 2:00 to 4:00 AM and PM is the time for the spleen, which is rañjaka pitta, and 4:00 to 6:00 AM and PM represents the descending colon and bladder.

The ideal time for an accurate reading of the pulse is early morning on an empty stomach. From the learning point of view, one can learn at any time. However, take into consideration what time the pulse is felt and what organ is activated. The solar system in an individual is governed by *pitta* and the lunar system by *kapha* and  $v\bar{a}ta$ . Generally, observation shows that in people who have more male energy—even women can be more masculine and sometimes aggressive—the organs become activated during the daytime. In those with female-dominating energy, the organs become active during the night. When female energy in a man becomes active, he becomes more compassionate, loving and emotional.

First learn to monitor the pulse on one side at a time, using the right side of a man and the left side of a woman. However, after some practice one should learn to feel the radial pulse on both sides of the subject simultaneously. When the subject is breathing better through the right nostril, then his or her right pulse is more prominent than the left. When  $v\bar{a}ta$  is pushing *pitta* or *kapha* more on the right side, then the right side pulse will be stronger than the left. It depends on where the *prāna* energy is moving. There may be a physiological cause. For example, an enlarged lymph node under the armpit may press the artery creating a feeble pulse on that side.

As a whole, when the person has more male energy, the right pulse will be more prominent. If female energy is activated, the left pulse will be more prominent. The same thing is true in pregnancy. When the right pulse is more prominent, the conceived fetus is male. If the left is more prominent, the conceived fetus is female. This pulse indicates the polarity of male and female energy. When the polarity changes, the amplitude of the pulse changes. The change in the pulse depends upon the breathing pattern. If the person has more prominence in right cycle breathing, the right hand pulse will be stronger than the left and vice versa. Feeling the pulse also reflects polarity between the observer and the observed.

The left brain is masculine, which governs all activity of the right side. The right brain is feminine, which governs all activity of the left side. *Prāna* shifts from the right hemisphere to the left hemisphere. When the right brain is active, there is more female energy. The person is more compassionate, intuitive and loving. When a poet writes a poem, he uses the right part of the brain and when the right brain is active, the left pulse will be prominent.

On the other hand, the left brain is masculine, male energy, which is mathematical, calculating, judgmental, critical and scientific. When a scientist is working in the laboratory and observing through a microscope, the left brain is active. The analytical left brain leads to ambition and competitiveness and when the left brain is active, the right pulse becomes prominent.

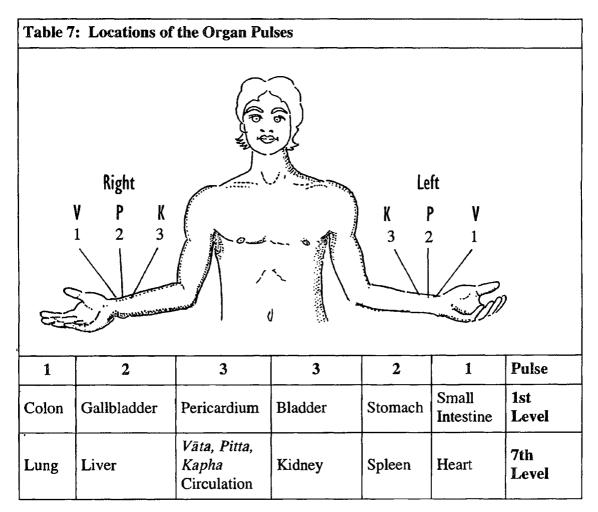
In deep meditation the primordial brain is activated. When in deep meditation one enters into a neutral state that is neither male nor female. At that moment the right and left nostrils breathe equally. There is a bridge between the right and left brain in the third ventricle called *chidākāsh*. Within the brain space, one can see a fountain of light moving along the spine. This river of light moves upward and passes through the marble of light, merging into the third ventricle, where one can see the blue pearl. This is not a romantic, poetic concept. It is the ultimate reality within you, the purpose of human birth and life, which is to become enlightened.

The fourth ventricle is shaped like a diamond. At the bottom is the central canal of the spinal cord and at the top is *rishi kesha*. Kesha means hair and *rishi* means seer of the mantra. The land of the Vedas is within each person. Merely going to India, shaving one's head and putting on a loin cloth will never transform a person. One may look like a spiritual person but it is a superficial change. The real change is evident within the third ventricle of the brain. At the moment of enlightenment both the right and left pulses become harmoniously identical, equal, gentle and balanced in both the superficial and deep pulses.

## Organ Pulses

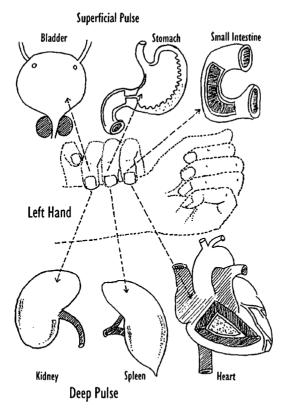
Now we will switch our attention to the organ pulses which are also found on the first and seventh levels, superficial and deep.

Remember that hollow organs are located on the superficial level and semi-solid organs are deep. To take this pulse, use one finger at a time. Feel the throbbing. In a healthy condition, the *prāna* energy should be equal in the superficial and the deep pulses. But suppose the colon is weak, indicating a lack of energy. A feeble throb will be felt



in the superficial pulse under the index finger on the right hand side of the subject. The stronger pulse is represented by a plus (+), a weaker pulse by a minus (-). The determination of whether the pulse is plus or minus is relative to the pulses of the individual being checked.

Ayurvedic literature states that the liver and gallbladder are the root of *rakta vaha srotas*, the hemopoietic system. It is my observation that the liver pulse is situated on the right side of the subject and the spleen pulse on the left. (In the Chinese system, the liver and gallbladder are on the left side of the subject and the stomach and spleen on the right.) In Ayurvedic texts, there is no mention about reading the organs through the pulse. However, the organs are intro-



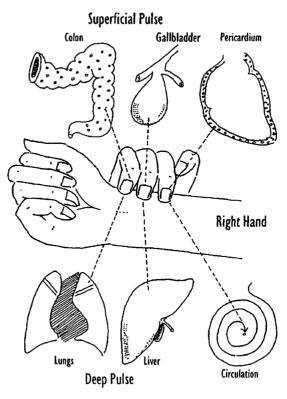
Organ Pulses of the Left Hand

duced under the concept of *srotas*. Every *srotas* and its connecting organs are made up of *dhātus*.

Now choose a partner, pay attention and read the status of each organ pulse. With the aid of the diagram on page 47, try to feel the relative strength of the superficial and deep pulses under each finger. Find out whether the colon is weak or the liver is weak. The classification of plus and minus depends upon the force, the throbbing. If the throbbing is strong, the strength of the organ is good. If the throbbing is feeble, the strength is weak.

Some people have very strong deep organs, which means they have a strong constitution. But in some the hollow organs are weak, which means their *vikruti* is more prevalent in the superficial organs. In many individuals the liver is weak or the kidneys are weak, which means a *dosha* has gone deep into the *prakruti* and is affecting that organ. So the power and the strength of the specific organ pulse becomes weak due to weakness in that organ. This is one explanation.

**Organ** Pulses



Organ Pulses of the Right Hand

On the other hand, the strength of the organ may be depleted due to accumulation of  $\bar{a}ma$  or low agni of that particular organ which can be felt under the pulse as a feeble organ pulse. The organ pulse may become feeble without indicating any *doshic* spike. This shows weakness in that organ as a *khavaigunya*, defective space, where the *dosha* has not yet reached to create a pathological condition. The *agni* of that organ is low. If this condition is not treated, later any aggravated *dosha* may lodge in that organ to create pathological changes, at which point the *doshic* spike develops. There is one Truth, but it can be expressed in different ways with different views, because our perceptions are different.

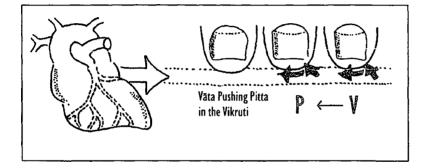
# Colon

The superficial pulse under the ring finger on the right side of the subject corresponds to the colon. If a strong spike is felt, the colon is strong. When a *dosha* is increased and goes into the organ, the organ becomes weak, causing a feeble pulse. If the colon pulse is feeble and throbbing is felt at the *kapha* location, there is a possibility of excess mucus, parasites, amoebae or some tumor in the colon. When there is chronic amoebiasis, which is a *kapha* disorder in which the body walls off the infection, the mucous membrane rolls and creates a lump called an amoeboma, which is a *kapha* type of tumor.

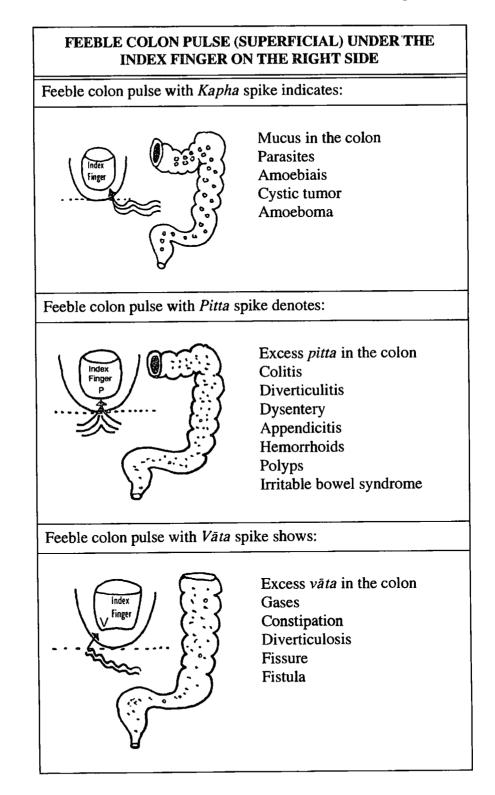
If the colon pulse is weak with a throb at *pitta*, there may be excess *pitta* in the colon causing colitis, diverticulitis, chronic diarrhea or dysentery, appendicitis, *pitta*-type hemorrhoids or bleeding polyps. If the spike is at  $v\bar{a}ta$  and the colon pulse is low, the person may have chronic constipation, gases in the colon or *gulma*. Kapha gulma (tumor) is an amoeboma,  $v\bar{a}ta$  gulma is diverticulosis and *pitta* gulma is diverticulitis and polyp. A polyp may be mucus or it may be a ruptured blood vessel causing profuse bleeding due to a *pitta* disorder.

The lungs and colon are linked as important organs related to  $pr\bar{a}na vaha srotas$ . The qualities of  $v\bar{a}ta$  are cold, dry, light, mobile and subtle. The mobile quality can carry excess *pitta* from the intestines into the colon or from the gallbladder into the colon, causing colitis. Making a diagnosis is a complicated process with many subtleties.

When  $v\bar{a}ta$  is pushing *pitta*, *pitta* is aggravated and may manifest in the colon rather than in the small intestine. But in this case the *pitta* is innocent. It is *samāna vāyu* which is pushing *pāchaka pitta* into the colon or *apāna vāyu* can pull *pāchaka pitta* into the colon. *Pitta*, being hot, starts burning the colon. Symptoms may not manifest in the small intestine but there may be rectal bleeding or a burning anus. In symptomatology *vāta* symptoms appear first—constipation, bloating, indigestion, burping, insomnia and low *agni*.



Organ Pulses



Then later the subject passes blood through the stool, has a burning sensation in the colon and the pulse shows typical  $v\bar{a}ta$  pushing *pitta*. Initially  $v\bar{a}ta$  was high, now  $v\bar{a}ta$  has pushed *pitta* into the colon and the colon is going through inflammatory changes. One should first treat the symptoms with the most significant manifestations. If the person is bleeding from the rectum and has a burning colon, don't treat  $v\bar{a}ta$ . Treat *pitta dosha* first.

Avurveda talks about the concept of a khavaigunva or defective space within the body. This defective or weak space may be in an organ, srotas (system), localized area, dhātu (tissue), etc., resulting from many possible factorsfor example, traumas, genetic inheritance, wrong diet or lifestyle. Once the space is weakened, a circulating aggravated dosha (prasara stage in samprāpti) may begin to accumu-late there and initiate pathological changes. A vāta pushing *pitta* condition depends upon the site of *khavaigu*nya. Suppose apāna vāyu is out of balance and there are toxins in the liver with aggravated rañjaka pitta. With this condition vāta can easily pull rañjaka pitta into the colon, leading to dark yellow or green stools. But suppose the person frequently eats black beans, cavenne pepper, curry pepper, chili pepper and drinks alcohol, causing one's pāchaka pitta to be high. Then udāna vāyu will push pāchaka pitta up and create nausea and vomiting. The subtype of vāta involved in the imbalance depends upon the location of the khavaigunya. In a way, there is a subtle affinity between the aggravated dosha and the khavaigunya. Apāna pulls down, udāna pushes upward and vyāna circulates. One can simply look at the symptoms. If a person has a bleeding rectum, burning urethra, vaginal bleeding along with some vāta symptoms, it denotes vāta pushing or pulling pitta. Here it shows apāna vāyu pulling pitta down. The symptoms are quite suggestive. Suppose vyāna vāyu is aggravated and pushes rañjaka pitta into the skin, creating hives, rash, acne or bleeding under the skin. When udāna vāyu is pushing pitta up, there is nausea, vomiting, bloodshot eyes and hot flashes. Wherever pitta is pulled or pushed, there it will create inflammatory changes leading to infection of those organs.

Organ Pulses

FEEBLE LUNG PULSE (DEEP) UNDER THE INDEX FINGER ON THE RIGHT SIDE		
Feeble lung pulse with Kapha spike indicates:		
Index Finger g	Pulmonary congestion Hay fever Upper respiratory congestion Pneumonia with consolidation Bronchitis Asthma Pleurisy	
Feeble lung pulse with <i>Pitta</i> spike denotes:		
R Finger P	Bacterial infection Tracheitis Bronchitis Inflammation Bleeding in the lungs Alveolitis	
Feeble lung pulse with Vāta spike shows:		
Index V finger	Cold, dry lungs Dry pleurisy Respiratory allergy Wheezing Dry cough Hoarseness of voice Emphysema	

# Lungs

The deep pulse under the index finger on the right side of the subject is the lung. If the lung pulse is feeble, with throbbing under the *kapha* position, there is the possibility of pulmonary congestion, upper respiratory congestion or descending infection. There may be a history of pneumonia, bronchiectesis or pleurisy with effusion. A postnasal drip goes from the nose, into the throat, into the trachea and then into the lungs. *Kapha* is heavy and goes down. *Bodhaka* 

kapha (in the mouth) enters tarpaka kapha (in the sinuses) and goes down into avalambaka kapha which is located in the lungs. With excess kapha the lungs become too damp and cold. Fungus may also enter the lungs, creating fungal infection. If a person is allergic to mold, damp and cold weather, there is excess kapha in the lungs. In addition, when there is surplus kapha in the lungs, a person may get hay fever or pollen allergy during the spring, kapha season.

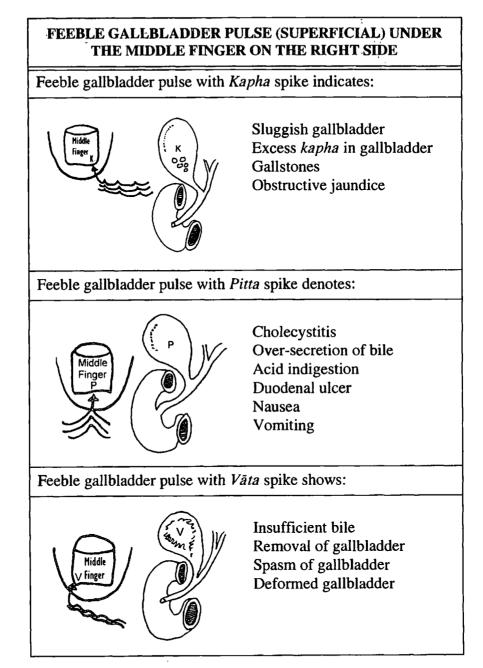
If *pitta* is involved in problems of the lungs, the spike will be at the middle position of the index finger, indicating a possibility of bacterial infection. *Pitta* can create bronchitis, trachyitis, broncheolitis, alveolitis or pleuritis. Perhaps *pitta* will create a condition of inflamed mucous membrane, indicating too much heat in the lungs. Excess *pitta* may cause chemical sensitivity. On the emotional level, the lungs are the seat of unresolved grief and sadness, which may create a *khavaigunya* in the lungs.

For *pitta* pushing *kapha* in the lungs, drink one cup of ginger and licorice tea with 10 drops of Mahanarayan Oil, an Ayurvedic medicated oil. Take this tea, sip by sip, to release the green mucus. Ayurveda is very specific. Ayurveda doesn't treat the organ alone but it deals with the root causative *dosha*. However, while treating the *dosha*, think about which organ is involved. When there is *pitta* pushing *kapha* in the lungs, there is specific management for that condition.

 $V\bar{a}ta$  involvement in the lungs creates a spike at the distal position of the index finger. A feeble pulse at this position may indicate respiratory allergy, wheezing, dry cough or hoarseness of voice.  $V\bar{a}ta$  in the lungs can cause inflation, an unnatural distention with air. This phenomenon is called emphysema. The over-inflated alveoli rupture, resulting in air hunger and diminished air entry.

# Gallbladder

The superficial pulse of the middle finger on the subject's right side is connected to the gallbladder. A feeble pulse at the *kapha* site indicates excess *kapha* in the gallbladder which will make the gallbladder sluggish, creating



thick bile and possibly gallstones. Because of excess kapha in the gallbladder, the person becomes sensitive to fatty fried food. Even the fat from peanut butter may create a headache and a dull aching pain in the right hypochondriac region (liver area).

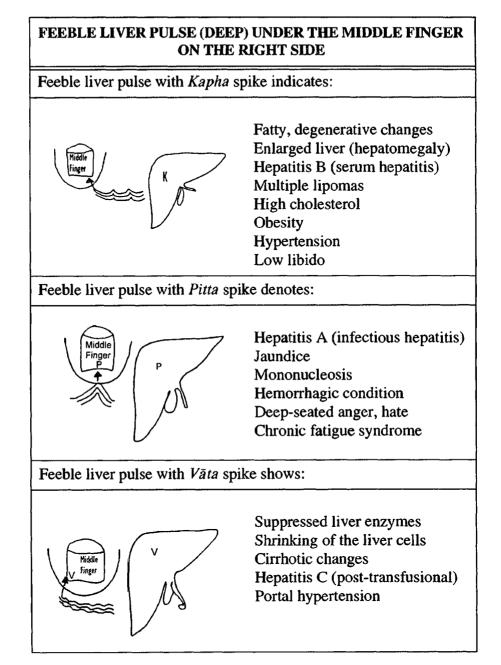
A feeble gallbladder spike at *pitta* indicates excess *pitta* in the gallbladder which may create cholecystitis, an inflamed gallbladder. The person has pain and tenderness and pressure put on the gallbladder causes the person to flinch. High *pitta* in the gallbladder may also create acid indigestion and lead to duodenal ulcer. *Pitta* will create a sense of tightness in the mid-back.

Vāta in the gallbladder will create tightness in the neck and shoulders due to referred pain from the gallbladder. If the gallbladder pulse is feeble with a spike at vāta, the gallbladder has insufficient bile. If any organ is removed surgically, that organ's pulse will be feeble. If the gallbladder is removed, the gallbladder pulse will be weak. If a lobe of a lung is removed, it will show up as an extremely feeble pulse of the removed organ. If the organ is a transplant, the individual's *prakruti* pulse will be felt, but the transplanted organ pulse will be extremely feeble or absent, because that organ doesn't belong to the person's *prakruti*. Ideally it is better to receive an organ from someone of the same *prakruti*. If the *prakruti* is quite different, the body will increase the likelihood of rejection of the transplanted organ.

Each organ stores memory in its connective tissue. Memory is stored not only in the brain but is also stored in the heart, liver and other organs. Our entire body is a memory body. Our entire body is an emotional body. The heart, liver and kidneys accumulate subconscious memory. When an organ is transplanted from one body into another, this stored memory goes with the organ and becomes a part of the recipient's memory.

#### Liver

The deep pulse under the middle finger on the right radial pulse of the subject is the liver. A feeble liver pulse with a spike at *kapha* indicates excess *kapha* molecules which can create fatty degenerative changes. The liver becomes enlarged and such a liver cannot digest fatty fried food. When there is excess *kapha* in the liver, it may denote serum hepatitis where the virus lives in the *kapha* molecules of body fluid, e.g., serum, saliva and semen. The person may get hepatitis B which can become hepatitis C due to



post-transfusion complications, leading to cirrhotic changes. Cirrhotic changes in the liver are *tridoshic* disorders. Cirrhosis of the liver is the death of liver cells but, if detected in the early stages of cirrhosis, the liver can be regenerated. Excess *kapha* in the liver can cause lipomas, which are fatty tumors, and can also create high cholesterol. It is the liver

that synthesizes cholesterol into testosterone, so a person with excess kapha in the liver is bound to have low libido. Rañjaka pitta contains bhūta agni which nourishes dhātu agni and the strength of the shukra agni depends upon the energy of the bhūta agni of the liver. One of the causes of obesity is excess kapha in the liver. Obesity, hypertension, high cholesterol and low libido go together.

Excess systemic *pitta* in the liver can aggravate *rañjaka pitta*, leading to hepatitis A (infectious hepatitis) and jaundice. It may create bleeding tendencies, such as bleeding gums, piles, bloodshot eyes or capillary hemorrhages that cause a person to bruise easily. High *pitta* in the liver may also make the person emotionally judgmental, angry and critical indicating deep-seated unresolved anger, envy and hatred stored in the liver. In addition, excess *pitta* in the liver may lead to chronic fatigue syndrome and mononucleosis, causing a person to feel tired and exhausted. This condition can be treated with several *pitta*-pacifying Ayurvedic herbs. If the liver enzymes SGOT and SGPT in a blood test are elevated, *pitta* in the liver is high.

If these enzyme levels are low in the blood, it may be a sign of high  $v\bar{a}ta$ . When  $v\bar{a}ta$  is high, *pitta* may be suppressed and liver enzymes may be diminished. With these conditions, the high  $v\bar{a}ta$  may create cirrhotic changes. Liver cells shrink and, because of the shrinking,  $v\bar{a}ta$  creates drying of the hepatic cells. Because of the rough quality of  $v\bar{a}ta$ , the form of the liver cells is disturbed. The result is increased hepatic pressure which leads to portal hypertension and this condition will push *pitta*. Vāta pushing *pitta* in the hemopoietic system may cause bleeding, so  $v\bar{a}ta$  in the liver is a serious condition, which is denoted by a  $v\bar{a}ta$  spike with a weak liver pulse.

*Rañjaka pitta* is necessary for coloring the *rasa dhātu* by producing red blood cells, and excess *pitta* in the liver can affect the production of red blood cells and may create sickle cell anemia, aplastic anemia or megaloblastic anemia as per the conditions. The fire component of *rañjaka pitta*, which is *bhūta agni*, affects *rakta dhātu agni* and may result in these anomalies.

Lyme disease is transmitted by the deer tick and the venom of this tick is highly *pittagenic*. If a person is bitten by one of these small ticks, the bhrājaka pitta under the skin is disturbed and affects rañjaka pitta in the blood, which in turn disturbs the rañjaka pitta in the liver and rakta dhātu, producing recurrent inflammatory disorders, accompanied by distinctive skin lesions, erythremia, migraines, polyarthritis and involvement of the heart and nervous system. So Lyme disease increases *pitta* in the liver. This excess pitta can affect rañjaka pitta and rakta dhātu. The person may get aplastic anemia, which means the red blood cells are not well formed. The liver maintains the consistency of the blood, and coagulation and bleeding time depend entirely upon its function. Therefore, Ayurveda treats the liver in order to regulate the normal function of rakta vaha srotas.

The liver and spleen are the seat of *rañjaka pitta* and *rakta vaha srotas*, so the *agni* (fire) which is present in the liver can regulate the function of the spleen. The spleen is a reservoir of blood. The malarial parasite lodges in the spleen causing the spleen to become enlarged. When the spleen is enlarged, *rañjaka pitta* is affected, which also affects *bhūta agni* in the liver. This condition diminishes the effectiveness of the immune system. All these conditions can produce a *pitta* spike with a feeble liver pulse.

# Pericardium

The pericardium has a special pulse under the ring finger at the superficial level on the right hand side of the subject. *Hridaya dhārā kalā* means the membranous structure around the heart. There are two *hridaya dhārā kalās*, the parietal pericardium and the visceral pericardium, and within the space of the pericardium there is a fluid, which is one of the components of *avalambaka kapha*. The pericardium is a membranous structure which is supported by *avalambaka kapha*. The myocardium, the muscles of the heart and the endocardium, the inner lining of the heart, are also *hridaya dhārā kalā*. *Avalambaka kapha* is present in the lungs, the bronchi and bronchioles, and it supports the lungs. The alveoli are constantly breathing air, day in and

उरस्थः स त्रिकस्य स्ववीर्यतः । हृदयस्यान्नवीर्याच्च तत्स्थ एवाम्बुकर्मणा ॥ कफधाम्नां च शेषाणां यत्करोत्यवलंम्बनम् ....अवलम्बकः

वा. मू. १२:१४

Through its energy flow, avalambaka kapha goes to the neck, arms and sacrum where it supports all kapha systems via circulation through the heart.

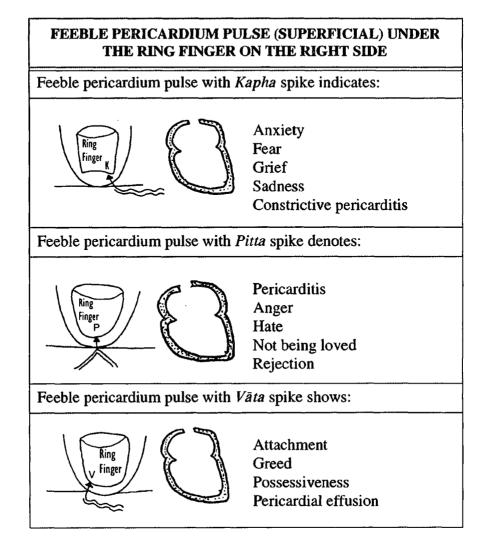
Vā. Sū. 12:15

day out, and the presence of *avalambaka kapha* in the lungs prevents drying of lung tissue.

Avalambaka kapha enters into rasa and rakta dhātus. Through its energy flow, it goes to the neck, arms and sacrum where it supports all kapha systems via circulation through the heart. Kledaka kapha enters into only rasa dhātu. It lubricates all kapha systems and avalambaka kapha supports all kapha systems. The pericardium moves with the heart and in this movement the pericardium, the hridaya dhārā kalā, generates electricity. That electrical potential, electrical impulse, is carried through the mucous membrane of the blood vessels. In the same way, around the nerve cells there is a membranous structure that generates electricity and that electricity is carried under the skin.

Every thought is an electrical impulse. Every heart beat is an electrical impulse. The pericardium, along with the muscles of the heart, are a powerful electric generator and that electricity is maintained by ojas. During sex a surplus amount of electricity is generated, causing the heart to beat fast. During orgasm one throws out energy from the body in the form of orgasmic fluid. So for the sake of the heart and pericardium, reduce sex or observe celibacy. Celibacy transforms that electricity into intelligence and that intelligence becomes the aura. Kirlian photography reveals the auric picture and after sex the aura is distorted and weakened. New life is created after intercourse and the purpose of sex is for the creation of progeny. In the woman the orgasmic fluids contain ojas, so the woman also loses ojas (energy) due to excessive sexual activity. In tantra there is intercourse without ejaculation and, through yogic discipline, the sexual energy can be transformed into supreme intelligence. This sexual practice is not the suppression of the urge to have sex. However, there is danger in practicing tantra without proper guidance from a teacher.

Coming back to the pericardium, the electrical energy created by *hridaya dhārā kalā* can be influenced by any hot food taken in excess which can activate pericardial movements, stimulate circulation and may be one of the causes of heartburn and irritation. If the pericardial pulse is feeble with a spike at the *kapha* curvature, there is a possibility of



congestion in the pericardium which may lead to avalambaka kapha blocking prāna, creating bradycardia or slow heart rate. If the right side of the pericardium is blocked, it will create right bundle branch block and left bundle branch block—RBBB and LBBB. Emotionally, the pericardium is related to unresolved, deep-seated attachment and unresolved grief. In extreme emotional conditions, kapha is provoked leading to a feeble pericardial pulse and pericardial congestion.

If the pericardial pulse is feeble and the spike is felt at the *pitta* site, there is pericardial inflammation, pericarditis and non-inflammatory burning sensation. When one eats

hot foods like cayenne pepper, curry pepper, and chili pepper and gets a burning sensation, it is called a non-inflammatory burning sensation. There is also a non-inflammatory burning sensation of the urethra, which is *pitta*. Pericardial congestion, non-inflammatory heartburn, is common in gastritis and hyperacidity. Because of the nerve connection, a burning sensation in the stomach creates referred pain in the heart area. Therefore, excess pitta can create pericardial congestion and heartburn. Emotionally there may be unresolved anger, hatred, and a feeling of rejection stuck in the heart and the pericardium. Relationship has such a great value. It is responsibility and commitment. But these days people have lost the true significance of relationship. A relationship in turmoil affects the pericardium and a feeling of rejection may lead to constrictive pericarditis, which may be associated with tuberculosis in the long term.

Now we will consider  $v\bar{a}ta$ . When the pericardial pulse is feeble with a spike at the distal curvature, the site of  $v\bar{a}ta$ , it may indicate multiple extra systole. The pulse will be irregular with a possibility of atrial flutter with fibrillation. Premature ventricle systole may also be due to aggravation of  $v\bar{a}ta$  in the pericardium. A  $v\bar{a}ta$  spike in the pericardial pulse can denote deep-seated fear, insecurity and loneliness. Thus, Ayurveda uses the pericardial pulse to understand the emotional status of the subject.

#### Circulation

The deep pulse of the ring finger of the subject's right hand corresponds to the circulation. It is fascinating that the heart, such a small organ, creates a wave that doesn't die. The pulsation of this wave goes to the tips of the fingers and toes. This capability is due to the functional integration of  $v\bar{a}ta$ , pitta, and kapha. V $\bar{a}ta$  is expansive and clear. Pitta is hot (ushna), sharp ( $t\bar{t}kshna$ ), liquid (drava) and flowing (sara). Kapha is slow (manda), heavy (guru) and oily (snigdha). The common factor between  $v\bar{a}ta$  and pitta is light, between  $v\bar{a}ta$  and kapha is cold and between kapha and pitta is oily. Heat expands and cold contracts. The light quality creates upward movement and the heavy quality creates downward movement. These combined qualities of

**Organ Pulses** 

The left chambers of the heart are the root of *prāna vaha srotas* which circulates the life energy (*prāna*) to all seven tissues.

The right chambers of the heart are the root of rasa vaha srotas which circulates the food nutrients, ojas, tejas and prāna to all seven dhātus with the functional integrity of prāna vāyu, vyāna vāyu, avalambaka kapha and sādhaka pitta in the heart.

संतत्या भोज्य धातूनां परिवृत्तिस्तु चक्रवत् ।

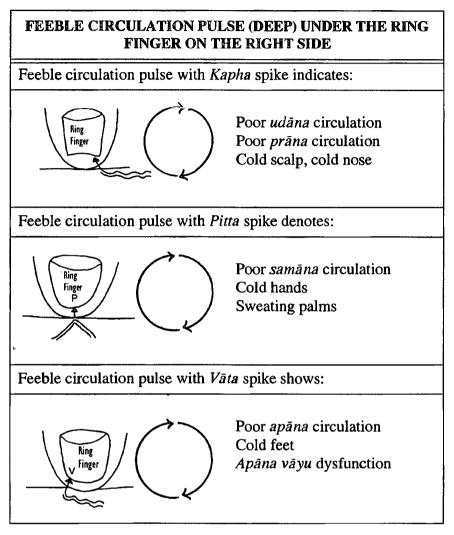
The food precursors are moving throughout the body like a wheel through rasa and rakta. Ca. Ch. 13

Rasa **Circulation of Prāna and Nutrients** Rakes Bhoiya Māmsa Lunes Dhātu Prāna Vaha Srota Left Atriun Meda Right Dhātus Atrion license) Asthi Maiia loot of Prana Vaha Srotas . Left Ventricle Shuk Root of Rasa Vaha Srota **Right Ventricle** HFART

three doshas help to carry the pulsations of the heart as a wave that is moving through the pulse to the tips of the fingers and toes. All of this is the functional integration of *tridosha*. The impulse that takes place at the heart is carried throughout the body by *vyāna vāyu*. *Vyāna vāyu*, *rañjaka pitta* and *kledaka kapha* move throughout the body. Though *rañjaka pitta* is in the liver, it enters into the blood and makes the blood hot. If the blood supply to an organ is cut off, that organ becomes cold because of insufficient *rañjaka agni*.

We have three diaphragms—the pelvic, abdominal thoracic and cerebral. The cerebral diaphragm supports the brain. With gentle movement it acts as a pump. The plates of the skull move slightly. In cranio-sacral work, the little movements of the bones of the skull expand  $pr\bar{a}na \ v\bar{a}yu$ , alter the state of consciousness and bring functional integrity in the organs. There is a thick network of blood vessels in the brain. Some people have cold scalps, which means their  $pr\bar{a}na$  is weak, because the cerebral diaphragm doesn't move properly. This lack of  $pr\bar{a}na$  may cause dizziness or ringing in the ear.

The abdominal thoracic diaphragm moves the lungs. On inhalation more blood rushes from the lungs into the left chamber of the heart. On exhalation more blood from the right chamber goes into the lungs. So inhalation and exhalation regulate circulation. The abdominal thoracic diaphragm brings more blood to the arms. Therefore, cold hands mean poor circulation from incomplete diaphragmatic breathing.



The pelvic diaphragm is governed by  $ap\bar{a}na \ v\bar{a}yu$  and it regulates the circulation in the lower extremities. On squatting, the pelvic muscles contract and the stool is easily passed. Cold legs indicate weak  $ap\bar{a}na$ ; cold hands, weak  $sam\bar{a}na$ ; cold scalp, weak  $pr\bar{a}na$ . The concept of circulation in Ayurveda is very interesting. Though  $vy\bar{a}na \ v\bar{a}yu$  is responsible for circulation, it is influenced by  $pr\bar{a}na$ ,  $sam\bar{a}na$  and  $ap\bar{a}na$  respectively, which can be detected at the seventh level of the pulse under the ring finger.

 $Vy\bar{a}na v\bar{a}yu$  circulates throughout the body.  $Vy\bar{a}na$  goes down with the help of  $ap\bar{a}na$  and moves up with the help of  $ud\bar{a}na$ . These movements are nothing but circulation. That

is why in the Chinese system circulation is called Triple Heater. What is Triple Heater? Triple Heater is  $v\bar{a}ta$ , pitta and kapha with functional integration. When the Chinese system speaks about Triple Heater, in the Ayurvedic system one can think about triple doshic functional integration which governs circulation and is felt in the deep pulse.

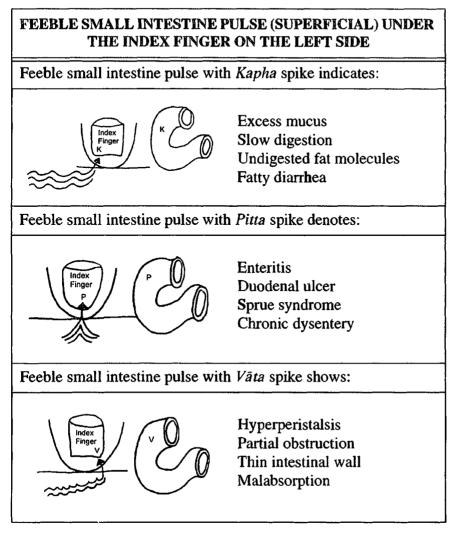
Kapha affects circulation because the pulsations created in the heart are carried to the periphery, to the capillaries, due to the functional integration of *tridosha*. Kapha doesn't allow the impulse to die. When kapha is not carrying sufficient impulse, the person will have poor circulation in the head. The scalp will be cold, the tip of the nose will be cold, sinuses will be congested and that person will faint.

On the other hand, due to excessive *pitta* rushing through the cerebral circulation, one can experience vertigo or dizziness and at the same moment can feel much heat in the scalp and the tip of the nose. Whenever we get a feeble pulse of circulation under the ring finger, a *kapha* spike denotes poor circulation in the head. A feeble pulse with a *pitta* spike indicates poor circulation in the hands and sweating palms. A weak pulse with a *vāta* spike shows sluggish circulation in the lower extremities.

#### Small Intestine

Now we will switch our attention to the pulses on the subject's left side. The index finger at the superficial level corresponds to the small intestine. A spike at the *kapha* site, the proximal curvature, shows excess mucus in the small intestine, slow intestinal digestion or undigested fat in the small intestine which leads to fatty diarrhea called steator-rhea. The person with steatorrhea has difficulty digesting fat.

A spike at the central curvature of the index finger shows *pitta* in the intestines suggesting enteritis, duodenal ulcer, peri-umbilical burning sensation or sprue syndrome (malabsorption). The person has alternating diarrhea and constipation. Sprue syndrome is called chronic dysentery (*pitta grahani*).



A feeble small intestine pulse with a spike at the distal curvature  $(v\bar{a}ta)$  of the finger indicates hyperperistalsis, intestinal partial obstruction or intestinal colic. This condition may lead to a papery thin wall of the small intestine, causing chronic malabsorption syndrome (*ghati yantra grahani*). The abdomen has a doughy feel indicating intestinal tuberculosis.

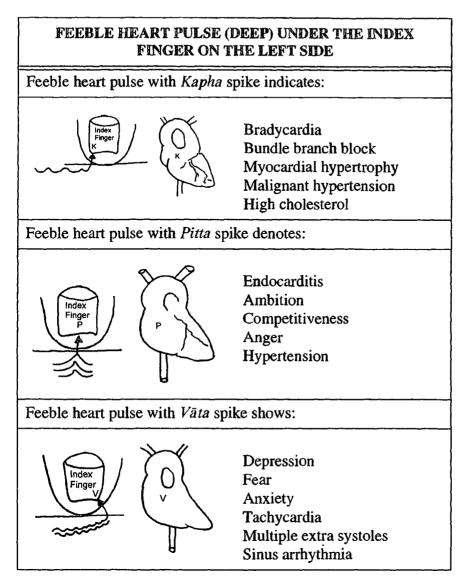
# Heart

The deep pulse at the seventh level under the index finger is the heart. It is composed of the heart muscle and the inner lining called the endocardium. A *kapha* spike shows a slow heart, heart block, bundle branch block or myocardial hypertrophy with chronic or malignant hypertension called essential hypertension, which is common in older people. A *kapha* spike is a sign of high cholesterol and high triglycerides.

A strong *pitta* spike under the index finger denotes myocarditis, endocarditis or systemic high *pitta* in the heart. The heart is one of the seats of  $s\bar{a}dhaka$  *pitta*. When  $s\bar{a}dhaka$ *pitta* is high, a person becomes judgmental, critical, ambitious and competitive. A feeble heart pulse with a spike at *pitta* doesn't always mean endocarditis or myocarditis. It may be the *pitta*-type of acute hypertension or a stressful condition due to a judgmental, critical, ambitious or competitive nature. *Pitta* hypertension is transient. A person becomes upset and, when he or she relaxes, the blood pressure becomes normal.

According to Avurveda, one of the functions of sādhaka pitta in the heart is to transform feelings into emotions and maintain self-esteem. Depression can be vāta, pitta or kapha type. Kapha type of depression may be due to lack of sunlight. During the winter and on cloudy days one feels depressed. Kapha type of depression may also be due to obesity, diabetes, hypertension, excess sleep or lethargy. Too much *pitta* in the heart may create depression. This type of depression may create thoughts of suicide and is associated with addiction to success or fear of failure. Pitta people tend to be perfectionists and, if a pitta person becomes aware that his or her judgment is wrong, depression may result. Vāta type of depression is associated with fear, anxiety, insecurity, and fear of the unknown, fear of tomorrow. Because of fear vāta individuals get depressed. When loss of control leads to depression, it is fear.

 $V\bar{a}ta$  type of heart conditions include tachycardia, atrial flutter with fibrillation, multiple extra systole, hypotension or alternating pulses. If  $v\bar{a}ta$  is in the heart, on inhalation the pulse becomes fast and on exhalation the pulse becomes slow. This condition is called sinus arrhythmia. Many times  $v\bar{a}ta$  in the heart creates pseudo-cardiac pain. A person may have palpitations, anxiety, insecurity or nervousness, but the reading of an electrocardiogram is absolutely normal. Palpi-



tation means undue awareness of heart beat. Physiologically palpitation is normally present in exercise, excitation and anxiety. But pathologically, the person is aware of the heart beat even without exertion or exercise. That condition is called anxiety tachycardia, which is a *prāna vāta* disorder.

Some yogis stop their hearts through  $pr\bar{a}n\bar{a}y\bar{a}ma$  and awareness. The baby in the mother's womb listens to the heart sound and in deep meditation we listen to the music of the heart. A drum without fingers, a flute without lips and fingers, the heart sounds are felt as celestial, spiritual music. In meditation, by paying attention to the heart *chakra*, one will hear different sounds in the ear, the sound of the ocean, the sound of tabla and drum and ultimately leading to the sound of Krishna's flute. When one hears the melody of a flute, all cows come together—cows mean senses—and they merge into Krishna, the higher consciousness within. Whenever one listens to the heart sound, there is a death of the ego and the ego doesn't like to die. Die to the ego, to power, prestige and position, then one will flow with the love, the inner sound, the primordial sound of his own *prakruti*. This sound is called "*prakruti* sound."

We are born with death. Death doesn't come from outside. As we grow, death also grows and the length of the death is exactly the length of the life. If we live 70 years, death lives with us 70 years. If we live 200 years, death lives with us 200 years. People fear death and that fear of death comes from attachment. We are attached to life and are afraid of seeing its end. At the deepest layer of life is neither birth nor death. In the heart there is a door and, if we meditate upon that door, we can jump into that layer of life which is beyond birth and death. That is meditation and meditation is the art of dying to the ego and to the body.

The heart is a most vital organ. When the heart stops, consciousness leaves the body in an ordinary person. But when a *yogi* stops his heart through *yogic* practice, his consciousness goes into the deeper layers of life beyond birth and death. That is called *samādhi* where there is no shadow of death. *Samādhi* means the art of going beyond birth and death. That is a state of balance.

The brain cells have a recording of death and birth. To take birth is very painful. If the child is asked how it feels to take birth, the child will say, "I was rejected. I was uprooted. I was thrown out of the Garden of Eden." The mother's womb is a Garden of Eden and the moment we become aware of our heartbeat, we are afraid.

#### Stomach

Under the middle finger the superficial pulse on the left hand of the subject is the stomach. A spike at the proximal

curvature shows excess *kledaka kapha* in the stomach which will lead to low *agni* (*manda agni*), excessive mucous secretion, chronic indigestion, production of  $\bar{a}ma$  and hypochlorhydria, which means hydrochloric acid is lower than normal. If this condition of hypochlorhydria, low acidity, remains for a long time, it can become pre-cancerous to the stomach. This condition should be treated by taking care of *kapha* through proper diet and herbal therapy.

Diagnosis can be confirmed by looking at the tongue. The tongue will show excess  $\bar{a}ma$  in the stomach area as shown in the diagram. There may be two spikes on the finger at the site of the stomach pulse, indicating excess *pitta* and excess *kapha*. A *pitta* spike denotes excess *pitta* and indicates over-secretion of hydrochloric acid. *Pitta* is increased by liquid quality, leading to low *agni*, which in turn causes acid indigestion, acute gastritis and peptic ulcer.

The presence of a  $v\bar{a}ta$  spike indicates imbalanced *agni* (vishama agni), irregular appetite and impaired digestion, gases in the fundus of the stomach and pyloric spasm. Even though pyloric stenosis is secondary to gastric ulcer, stenosis is due to  $v\bar{a}ta$  and a stomach deformity called hour glass constricture of the stomach. These are extreme  $v\bar{a}ta$  conditions as a complication to chronic *pitta* disorders. With esophageal problems the person can be asked where the food feels stuck. When the patient says the pain while swallowing is a sense of obstruction, if it is a man of 70, there is a possibility of cancer of the esophagus. But if an adult of 20 is complaining of tightness and a sense of obstruction of food, it may be due to anxiety, rapid eating or gas under the fundus. Hiatal hernia is a  $v\bar{a}ta$  disorder that should also be considered.

# Spleen

The deep pulse at the seventh level under the middle finger on the left hand side of the person denotes spleen  $(pl\bar{n}h\bar{a})$ . The spleen with a feeble spike at the kapha site indicates megaloblastic anemia, the red blood cells are large in size but small in number. Or a kapha spike can indicate fluid in the abdominal cavity, which is called ascites. The spleen may be enlarged. Yakrut means liver and  $pl\bar{n}h\bar{a}$ 



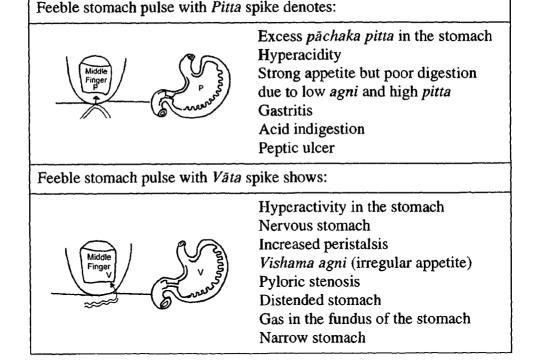
# FEEBLE STOMACH PULSE (SUPERFICIAL) UNDER THE MIDDLE FINGER ON THE LEFT SIDE

Feeble stomach pulse with Kapha spike indicates:



Excess kledaka kapha in the stomach Low agni (manda agni) Chronic indigestion Ama in the stomach hypochlorhydria (low hydrochloric acid) Pre-diabetic condition

\_\_\_\_\_



means spleen. Both are the root foundation of the hemopoietic system (rakta vaha srotas).

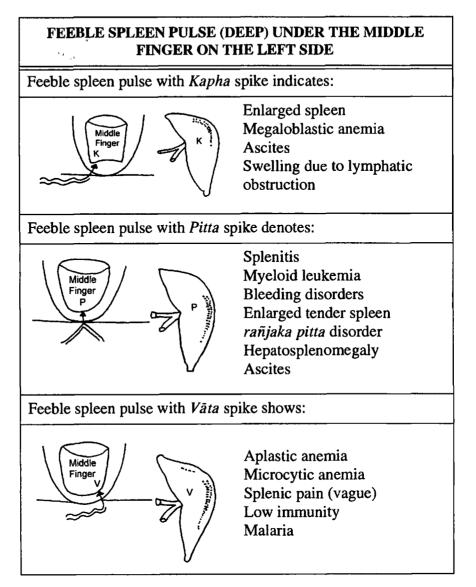
A pitta spike suggests splenitis and excess pitta in the spleen can create myeloid leukemia. In this condition a person bleeds—bleeding gums, rectum, the stomach and skin. Enlargement of the spleen can lead to anemia, a rañjaka pitta disorder. Red blood cells are broken and they become deformed as in sickle cell anemia or extreme hemolytic

changes. The person then gets ascites with enlargement of the liver and spleen, which is called hepatosplenomegaly. When  $v\bar{a}ta$  is pushing *pitta* in the bone marrow (the *majjā dhātu*), the *ushna* and *tīkshna* qualities of *pitta* disturb the red blood cells. Ask the subject if there has been a history of malaria or treatment with quinine. With *pitta* in the spleen, these possibilities are present. The spleen may be painful and tender in splenitis and the condition may develop into leukemia. What Ayurveda teaches makes great sense. Any *dosha* which is in the spleen may affect the immune system (*ojas*).

A vāta spike under the middle finger at the spleen site can lead to aplastic anemia, where the red blood cells are not properly formed; microcytic anemia, where the cells are smaller than normal size; splenic pain, extreme debility and low immunity. These conditions are very serious and not so common, but people frequently have low spleen energy. One shouldn't immediately jump to the conclusion of a serious condition but there is a possibility the person may go into anemia or blood bourne disorders.

The production of red blood cells in the fetus takes place in the liver. The liver is the root of *rakta vaha srotas*. In the fetal body, the liver generates blood and the spleen creates white blood cells. Later on that function is slowly transferred to the bone marrow, which takes over the production of the red blood cells. The union of ossifying centers takes place at puberty. A radiologist, taking an x-ray of the joint, can tell the age of a person by observing the ossifying centers. At the age of puberty red blood cell formation is entirely transformed to the bone marrow via *rañjaka pitta* in the stomach.

The thymus gland (*adha jatru granthi*) produces specialized *kapha* molecules (white blood cells). These white blood cells are the policemen, the guards of the body, that catch bacteria and kill the viruses. The thymus gland in children is very active and large. It is the time of life when *kapha* is predominant and lymphocytes are associated with *avalambaka kapha*. In children the thymus gland produces more white blood cells to protect and maintain immunity. As the adult grows, the thymus gland becomes less active



but is still important in maintaining immunity and supporting the body's normal function.

The immune system includes the digestive system, the endocrine system and the lymphatic system. It also includes proper function of the excretory system. Gently tapping the sternum stimulates the thymus gland, which in turn stimulates the immune mechanism. Immunity is also based upon positive thinking and functional balance between *ojas*, *tejas* and *prāna*. Negative thinking adversely affects *ojas*, *tejas* and *prāna*, the thymus gland, the spleen, the function of the

lymphatic system and the entire immune system. With positive thinking, right attention and right intention, one can inject right awareness. Positive thinking strengthens the function of *ojas*, *tejas* and *prāna* and the thymus gland. The thymus gland is very close to the heart, which is the seat of emotions, and any negative emotion will first affect the thymus gland. During extreme stress and negative thinking, one's white blood cell count goes down.

Body, mind and spirit all need to be considered in holistic medicine. Modern doctors are learning ancient Ayurvedic concepts and body/mind medicine and are becoming more aware of spiritual aspects. Perhaps in the twenty-first century spirituality and medicine will go together. The spirit and mind cannot be separated from the body and the body/mind machine works as a unit. Ayurveda says that the body is not a mindless machine. The body is a dwelling of emotions, a house of spirit and the abode of consciousness. Body, mind and consciousness must be considered together.

#### Bladder

The last example of the superficial pulse on the left hand side of the subject, found under the ring finger, is the urinary bladder, or *mūtrāshaya*. The other name for bladder is *basti*. In *pañchakarma* the word *basti* is used to refer to a therapeutic enema. In ancient times the bladder of a horse or a buffalo was used to hold the liquid for an enema. The opening at the top of the bladder was tied to a bamboo tube, creating the ancient *basti* apparatus.

If the bladder pulse is feeble, try to locate the spike. A *kapha* spike with low bladder energy shows excess *kapha* in the bladder. Just give a *kapha*-soothing diet and the condition will be corrected. But if this condition remains, the person will get proteinuria (albuminuria), because *kapha* resembles protein molecules and will cause the patient to pass albumin in the urine. Another indication may be excess urination, polyuria, which is a sign of early diabetes. In cases of diabetes, which is a *kapha* disorder, *kledaka kapha* goes into the kidney and hence into the bladder. The urine will be cloudy, turbid and milky.

Organ Pulses

	(SUPERFICIAL) UNDER THE ON THE LEFT SIDE
Feeble bladder pulse with Kapl	a spike indicates:
Ring Finger K	Hyaline cast (Mucus in the bladder) Albuminuria (proteinuria) Polyuria Diabetes Cloudy, turbid urination Seminuria
Feeble bladder pulse with Pitta	spike denotes:
Ring Finger	Cystitis Burning urination Dark, yellow-colored urine Hepatitis (bilirubinuria) Acidic pH of urine Hematuria (blood in the urine)
Feeble bladder pulse with Vāta	spike shows:
Ring Finger	Scanty urination Cold urine Debilitated kidneys Renal failure Incontinence

In pregnancy, because of the enlarged uterus which presses the bladder, a woman has frequent urination, which may be a *kapha* condition. A pregnant woman builds more *kapha* in her body in order to nourish the fetus. *Kapha* conditions include polyuria, diabetes, frequent urination, cloudy turbid urination, and in some cases, seminuria when a person passes semen in the urine. However, that semen doesn't go into the bladder; it comes out through the prostatic urethra.

A pitta spike indicates excess pitta in the bladder which may create repeated attacks of cystitis, inflammation of the

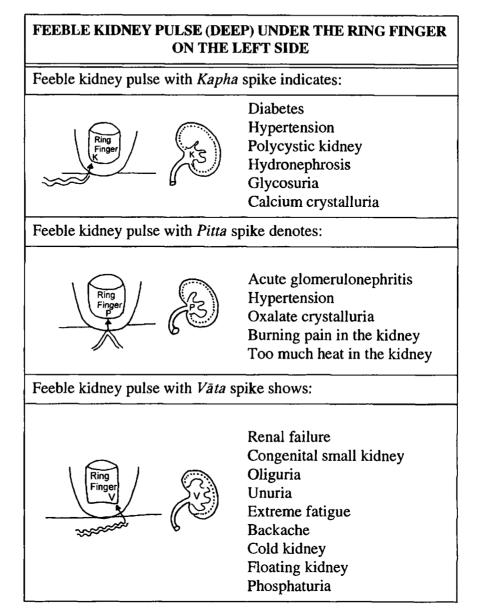
bladder, burning urination, dark yellow color in the urine, and sometimes blood in the urine. Hepatitis is a ranjaka*pitta* disorder in the liver, which creates excess secretion of bile salts, bile pigment and bilirubin. These secretions (*ranjaka pitta*) go into the bladder and pass out of the body through the urine. So excess *pitta* in the bladder can create bilirubinuria (bilirubin in the urine). That's why the urine is dark yellow, the color of turmeric. A B-complex vitamin supplement that is not utilized by the body also creates yellow colored urine. If a person eats beets, the urine will be red. If the liver pulse is feeble and shows a *pitta* spike, there is a stagnation of *ranjaka pitta* in the liver. Hepatitis may not be active at present, but there may be a history of mononucleosis or hepatitis in the past. This *ranjaka pitta* is released into the bladder causing yellowish discoloration.

A  $v\bar{a}ta$  spike and low bladder energy may denote scanty urination, because urine is not properly filtered through the kidney. Even in the early morning the person passes absolutely clear urine and the urine is foamy with bubbles. In addition, the urine is cold, as if one is passing cold water through the urethra. While passing urine, the person gets goose pimples, which is an early sign of debilitated kidney function leading to diabetes. In some conditions, urine is not formed at all in the kidneys, so excess  $v\bar{a}ta$  in the bladder may lead to unuria or suppression of urine. The bladder is totally empty, which in turn affects  $pr\bar{a}na$  and may lead to uremic coma.

Foam in the urine is due to a  $v\bar{a}ta$  dosha disorder. Anxiety and insecurity stimulate the bladder causing polyuria (excessive secretion of urine). Juvenile diabetes is a  $v\bar{a}ta$ disorder causing emaciation of the muscles. In this condition one gets a  $v\bar{a}ta$  spike under the ring finger.

#### Kidney

The deep pulse under the ring finger on the left hand side of the subject is the kidney pulse. If the kidney energy is low with a spike at the *kapha* site, *kapha* may drain the kidney energy, which will lead to albuminuria. Unabsorbed

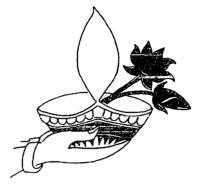


calcium molecules lodged in the kidney create crystalluria and these calcium crystals can lead to calcium stones. Other conditions caused by *kapha* are diabetes, hypertension, polycystic kidney, hydronephrosis and glycosuria. A person who consumes too much caffeine, sugar and milk may get excess *kapha* and a dull aching pain in the kidney. If a *kapha* pulse is felt in the kidney, one should shift to *kapha*pacifying food.

Pitta in the kidney pulse shows excess pitta in the kidney, leading to nephritis or infection of the urinary tract, acute glomerulonephritis and hypertension. Pitta attracts oxalate crystals. Eating tomatoes, spinach and radishes, which are all rich in oxalic acid, may lead to the pitta type of oxalate stone. So people having kidney stones will either have a kapha pulse, a pitta pulse or a kapha/pitta pulse, which means pitta pushing kapha in the kidney. The result is calcium stones, oxalate stones or calcium-oxalate stones. The Bowman's capsule, which is a subtle mutra vaha srotas, is located in the cortex of the kidney. Within the Bowman's capsule there is a network of capillaries called glomerula. Acute glomerulonephritis, a high pitta condition in the kidney, will lead to hypertension, oxalate stones or fever, creating a burning pain in the renal angle.

 $V\bar{a}ta$  in the kidney causes floating kidney, which means the kidneys are descended. Some people are born with kidneys that never grow to full size (juvenile small kidney), or one kidney is small and one kidney is normal. These people have  $v\bar{a}ta$  dosha in the kidney. Other conditions include oliguria, unuria, extreme fatigue, lower backache, phosphate crystals in the kidneys or phosphaturia, leading to calcium phosphate stones. Renal failure may result in uremic coma.

With this background, again choose a partner and feel the superficial and deep pulses. Try to understand whether there is  $v\bar{a}ta$ , *pitta* or *kapha* in the weak organ pulses.



	1. DIDDAY	2-MIDDLE	3-RING
	1-INDEX		
1st Level	Colon	Gallbladder	Pericardium
	Triphala	Ginger (fresh)	Pushkarmula
	Sat isabgol	Black pepper	Gulwel sattva
RIGHT	Senna	Piper longum	Betle nut
HAND	Castor Oil	Jatamamsi	Ginger
	Ajwan	Aloe vera juice	Cinnamon
	Hing	Olive oil	Nutmeg
7th Level	Lungs	Liver	Circulation
	Piper longum	Kutki	Trikatu
	Punarnava	Shankha pushpi	Cinnamon
	Abhrak bhasma	Neem	Cardamom
RIGHT	Kantakari	Aloe vera gel	Clove
HAND	Tulsi (Holy basil, sweet	Manjishthā	Turmeric
	basil)	Tikta	Cayenne pepper
Yasti madhu		Shilajit	Manjishthā
			Red sandalwood
	2	3	
1st Level	Small Intestine	Stomach	Bladder
	Chitrak	Shatavari	Punarnava
	Gulwel sattva	Yasti madhu	Amalaki
	Danti	Shankha bhasma	Cumin
LEFT	Kāma dūdha	Ajwan	Gokshura
HAND	Cumin	Amalaki	Coriander
	Pippali	Mustard	Fennel
	Saffron	Cumin	Chandan (white
	Hing	Ginger	Coconut
	Tung	Saffron	
7th Level	Heart	Spleen	Kidneys
/th Level		Manjishthā	Punarnava
	Arjuna	Saffron	Gokshura
	Cinnamon	Turmeric	Shilajit
	Guduchi	Shilajit	Cilantro
LEFT	Amalaki	Echinacea	Mūtrala
HAND	Tagara	Osha	Intrata
	Nutmeg	Usha	1
	Passion flower		
	Hawthorn berry		
	Manuka	}	
	Pomegranate		

... 



# Subtypes of Doshas Through the Pulse

# Level Three

संचयं च प्रकोपं च प्रसरं स्थानसंश्रयम् । व्यक्तिं भेदं च यो वेत्ति दोषाणां स भवेद्भिषक् ॥

सु. सू. २१:३६

One who knows the various stages of pathogenesis accumulation (sañchaya), provocation (prakopa), spread or diffusion (prasara), deposition or localization (sthāna samshraya), manifestation (vyaktı) and the differentiation or termination (bheda)—is entitled to be a physician.

Su. Sū. 21:36

# Samprāpti-The Process of Disease

An important and interesting aspect of the Ayurvedic pulse system relates to its ability to explain the pathogenesis of a disease. We have seen in earlier sections how  $v\bar{a}ta$ , pittaand kapha go out of balance and express this imbalance in any tissue, organ or system. According to this paradigm, each healthy, balanced *dosha* is at home in a particular area— $v\bar{a}ta$  in the colon, *pitta* in the small intestine and *kapha* in the stomach. These are the primary sites of function from which the *dosha* can spread its influence.

How this happens is explained in a six stage model of pathogenesis called *samprāpti*. Accumulation (quantitatively) of the *dosha* marks the first stage of imbalance. In this stage, called *sañchaya*, *vāta*, *pitta* or *kapha* accumulates

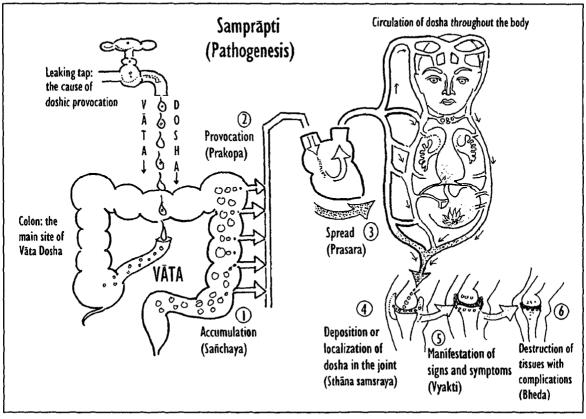
in its own site. Symptoms at this stage are usually mild but the condition can be detected through the pulse even in this early stage. Using  $v\bar{a}ta$  for this example, high  $v\bar{a}ta$  in the colon would be experienced as gas and bloating. Aggravating influences might cause  $v\bar{a}ta's$  functioning to degrade qualitatively, creating constipation and moving it to the second stage, aggravation or *prakopa*. In this stage the *doshic* level rises in its own "container" in the body.

Further aggravation escalates the situation to the third stage, the stage of spreading or *prasara*. For example,  $v\bar{a}ta$  in this stage will leave the colon and enter the general circulation, "looking" for a place to enter. It will tend to move into a spot that has some weakness or defect, perhaps by virtue of genetic flaw or previous disease. The aggravated *dosha* has an affinity toward moving into these weak spots, called *khavaigunya* or defective space, which can be described as negative locations like potholes on the road.

On entering, the *dosha* influences the tissue by its aggravated qualities. Later the *dosha* further invades the tissue and affects its function. This amalgamation of *dosha* and  $dh\bar{a}tu$  is the stage of *sthāna samshraya*, stage four.

In the next stage qualitative change becomes apparent. The aggressive quality of *dosha* suppresses the natural quality of *dhātu*, resulting in pathological conditions. For example, because of its cold quality, *vāta* will create stiffness in the joint. Due to its dry and rough qualities, *vāta* creates cracking and deformity of the articular surface. Because of rough quality, *vāta* will create pain. This is the stage of manifestation called *vyakti*, stage five. The subtle attributes of the *dosha* have totally manifested according to the etiological factors. One cannot only label the illness but also point out the particular quality of the *dosha* that is playing the most important role in the disease process. In the *vyakti* stage functional changes become evident.

In stage six, the *bheda* stage, structural changes manifest. Complications of other organs, tissues or systems become evident.  $V\bar{a}ta$  will not only affect the joint space but also the surrounding soft tissue, leading to muscle wasting, frozen joints and deformity. This stage is the final expres-



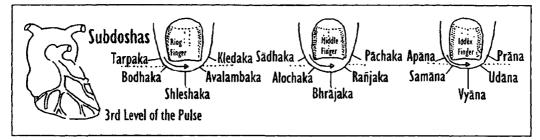
sion of the disease process. The disease has completely manifested with its complications and must be dealt with by effective means.

The pulse, by disclosing which organs, tissues and *doshas* are involved, reveals which stage of pathogenesis has been reached. Organ or tissue pulses divulge specific sites where the imbalance is occurring. The pulses of the *doshas* and their subtypes give information about what is happening. The details of the *dosha* involved suggest the nature of the disease in that particular organ or tissue. We have used vāta as an example for showing the disease process. The same progression is true for *pitta* and *kapha*.

# Subtypes of Doshas Through the Pulse

The Ayurvedic theory of five elements is a basic concept in the creation of the universe and man. This concept continues even into the subtype of each *dosha*. The subtypes of each *dosha* also contain the prominence of that particular

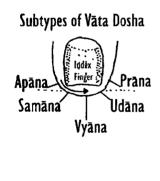
element. For example,  $pr\bar{a}na$  is etheric,  $ud\bar{a}na$  is air,  $sam\bar{a}na$  is fire. For this reason, the subtypes are important in an understanding of the entire disease process. Every dosha has a gati, a movement. Upward movement is  $ud\bar{a}na$ . Downward movement is  $ap\bar{a}na$ . If the dosha is moving in a circular manner, it is  $vy\bar{a}na$ . To understand the vector of sampr $\bar{a}pti$ , pathogenesis, the knowledge of the subtypes of each dosha is very important.

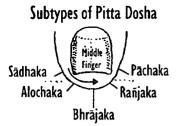


Vāta, pitta and kapha govern different aspects of physiology, as we have already discussed. In addition, each dosha has five functional subtypes. Vāta is composed of prāna, udāna, samāna, apāna and vyāna. Pitta is subdivided into pāchaka, rañjaka, sādhaka, ālochaka and bhrājaka. Kapha consists of kledaka, avalambaka, bodhaka, tarpaka and shleshaka. Each of these subtypes also represents a different aspect of physiology.

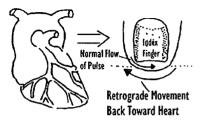
The subtypes of each *dosha* are significant as indicators of qualitative changes as opposed to quantitative changes as seen in *vikruti*. These subtypes are read on the third level of the radial pulse. Place the fingers on the first level where *vikruti* is felt. Pass through the second level and with a bit more pressure one becomes aware of the third level. The index finger shows  $v\bar{a}ta$ , the middle finger shows *pitta*, and the ring finger is *kapha*. The third level denotes only *doshic* subtypes.

A spike indicates involvement of that particular doshic subtype. A spike at the distal curvature of the index finger is  $pr\bar{a}na$ . A little closer to the middle curvature is  $ud\bar{a}na$ . Then on the other side of the curvature is  $sam\bar{a}na$  and at the extreme end of the curvature is  $ap\bar{a}na$ .  $Vy\bar{a}na$  is felt along the proximal curvature as shown in the diagram.









The more closely we observe, the more we understand. Suppose a person has a problem with many  $v\bar{a}ta$  symptoms. Which subtype of  $v\bar{a}ta$  dosha is involved? The pulse will reveal whether it is prāna, udāna, samāna, apāna or vyāna. The finger is a sensitive electrode placed on the pulse to find the location of the spike. The quality of the pulse is also important. However, at this stage of learning, just be aware of the position of the spike and learn which subtype is taking part in the disease process (samprāpti). The subtype out of balance will create a spike.

The same principle is applied to the middle finger for detecting the subtypes of *pitta dosha*, as shown in the illustration. There is some difference in opinion about the location of  $s\bar{a}dhaka$  and  $\bar{a}lochaka$ , but this is the order I learned from my experience.  $Br\bar{a}jaka$  pitta is located on the central curvature and moves across the proximal curvature of the finger.

Under the ring finger is kapha. Kledaka kapha is located at the extreme distal curvature. Next is avalambaka. Kledaka nourishes avalambaka, avalambaka supports bodhaka and bodhaka enlivens tarpaka, so this is a serial order. Although this order is present on the fingertip, functionally it is kledaka which nourishes avalambaka and avalambaka nourishes all kapha systems. Again, some would switch tarpaka and bodhaka but these are the locations that I learned from my mentor. Finally, shleshaka is located on the central curvature and moves throughout. The arrow as shown in the diagram moves in the direction of blood flow.

Now feel your own pulse and see which subtype of each dosha is active at present. The diagram of doshic subtypes at the beginning of this chapter can indicate physiology as well as pathology. But how can one detect whether it is physiological activity or pathological activity? One thing is very important, general movement goes toward the periphery. When  $vy\bar{a}na v\bar{a}yu$  and circulation are propelling the dosha from the heart to the periphery, physiological activity is present. If  $vy\bar{a}na v\bar{a}yu$  moves retrograde from the periphery back to the heart, it denotes some pathological condition, such as congestion, altered function and complications. During ancient times, there were no x-rays or other modern

equipment, so the physicians of that time read the pulse and tried to diagnose the problem by the quality, nature and direction of the spike.

If the third level of the pulse is felt in the morning, afternoon and evening and if one subtype of *dosha* is persistently active, consider the possibility that there is some abnormality. The flow of circulation moving in the opposite direction away from the periphery and toward the heart can indicate a *bheda* stage, leading to an active pathological lesion. Any retrograde flow can cause severe tissue damage.

Go step by step. Give gentle pressure and go to the third level. Using the chart of the finger positions, feel each subtype that has a spike and find out which subtype of the *dosha* is out of balance.

#### Vāta

A dysfunction in a *doshic* subtype can manifest in specific ways. Considering first the subtypes of vāta, a spike under the vāta finger at the prāna site can denote a migraine type of headache, ringing in the ear, dizziness or some mental dysfunction such as chattering of the brain, thinking too much, insomnia, interrupted sleep or too many dreams. Swallowing is a function of prāna, so dysphasia, which is difficulty in swallowing, hurried eating or hiccoughs are also dysfunctional disorders. Loss of sensory and motor response is prāna and neuropathy may also be included in prāna. Prāna maintains memory, but udāna governs the function of proper memory at the proper time. Udana moves upward and touches those nerves, those neurons. Prāna gives light to the memory, but udāna makes memory function directly, according to time, space and causation. Belching is udāna but swallowing of the food is prāna.

Udāna governs speech, recollection, belching and hiccoughing, because udāna moves upward. Udāna vāyu is also responsible for memory retention, effort, energy and color complexion by maintaining proper oxygenation. It expresses thoughts, feelings, emotions, speech and effort. Udāna works at the throat chakra and one of the important functions of the throat chakra is communication and expression. Udāna and prāna can be confusing because they are so close together on the finger. If it is difficult to determine the exact location, just write down both prāna and udāna. Then later, as you observe more closely, it will become clear which one is correct. If it is prāna, other symptoms connected to the respiratory or the nervous system will manifest. If udāna is involved, there may be hiccoughs, breathlessness, poor memory or fatigue. If samāna is involved, it may be connected to digestive disorder or malabsorption syndrome. Digestion, absorption, assimilation and intestinal peristalsis are governed by samāna.

Apāna is related to elimination and  $vy\bar{a}na$  to circulation. Apāna normally stays in the colon and pelvic cavity and governs the functions of the bladder, rectum, menstruation, ovulation and ejaculation. Whenever  $ap\bar{a}na \ v\bar{a}yu$  is affected, ask the person about these functions. Is elimination functioning properly? Is menstruation painful? Does the person have low backache, sciatica, premature ejaculation, painful ovulation or premenstrual syndrome?  $Vy\bar{a}na$  $v\bar{a}yu$  is connected to circulation, blood pressure and movements of the joints, especially the reflexes. It may be responsible for tremors, tics and spasms, but generally nervous disorders are connected to  $pr\bar{a}na$ .

# Pitta

Within the subtypes of *pitta*, *pāchaka pitta* governs digestion, absorption and assimilation of food. If a *pāchaka pitta* spike is persistent, there is some disease process, *samprāpti*, going on and digestion may be affected.

Rañjaka pitta is associated with the liver and spleen and a feeble spike at this site may indicate a weak liver, jaundice, hepatitis or gallstones. It is involved in the creation of red blood cells (RBC) so dysfunction of rañjaka may cause anemia. In the stomach rañjaka pitta can be compared to the gastric intrinsic factor, which is necessary for erythrogenesis, the formation of red blood cells. So a rañjaka pitta disorder indicates liver, spleen or stomach dysfunction, which could manifest as anemia, hepatitis, jaundice, mononucleosis or chronic fatigue syndrome. High cholesterol, high tri-

glycerides and gallstones are also connected to dysfunction of ranjaka pitta.

*Alochaka pitta* is present in the eyes—retina, lens, color vision, optical perception and visual acuity. *Alochaka pitta* dysfunction may manifest as conjunctivitis, blepharitis, glaucoma, burning sensation in the eyes, floaters in the eyes and increased intraocular pressure. In cataracts the *kapha* molecules lodge in the lens and create this condition—*pitta* pushing *kapha* in the lens. Excess *tejas* burns the *ojas* of the lens, *kapha* molecules start accumulating and make the lens smoky, cloudy and opaque.

Sādhaka pitta is present in the brain and heart. It is responsible for understanding, knowledge, comprehension, appreciation, self-esteem, confidence, courage and the capacity to express thoughts and feelings. In the heart it processes feelings into emotions. When sādhaka pitta is dysfunctional, a person may have confusion, wrong conclusions, delusions, hallucinations or wrong concepts. Sādhaka pitta synthesizes words into knowledge and processes information into comprehension. It is responsible for concentration, attention and maintaining perception. When sādhaka pitta is adversely affected, there is lack of concentration, lack of focusing attention and unclear perception. There is no memory directly connected to sādhaka pitta. It digests and transforms information into knowledge, so knowledge is a most important function of sādhaka. When knowledge is not there, then memory is not there. But directly, memory is not connected to sādhaka; it is the function of udāna vāyu.

Bhrājaka pitta is present under the skin and maintains the normal color of pigmentation cells. It processes every tactile sense of touch, pain and temperature. This perception is called stereognosis—gnosis means knowledge, stereo means three-dimensional. Because of touch perception a blind man recognizes common objects like a key, coins, or a matchbox through touch. A blind person can read through touch. The skin has an understanding of the touch of love. A person knows if he or she is being touched with hate, love or sex, or perhaps anger or fear. These subtle understandings of the meaning of touch are the functions of bhrājaka pitta. If someone touches with great love, *bhrājaka pitta* processes that touch into healing love.

When insufficient light falls on the skin of the forehead, a person can become depressed. Depression is uncommonly common in the winter because of insufficient light on *bhrājaka pitta*. In full spectrum light *bhrājaka pitta* secretes serotonin via *sādhaka pitta*, so *bhrājaka pitta* is necessary to avoid depression. Eczema, dermatitis, psoriasis, acne, hives, rash, urticaria and erysipelas are *bhrājaka pitta* disorders.

Dysfunction of *bhrājaka pitta* is also involved in skin cancer and one way to prevent skin cancer is by the application of neem oil on the skin. Neem oil acts as a partial sun blocker. *Rañjaka pitta* maintains the color of *bhrājaka pitta* and *bhrājaka pitta* maintains the color of the skin. In anemia the skin becomes pale, because *rañjaka pitta* doesn't produce enough red blood cells. If there is excess *rañjaka pitta*, the person may get polycythemia and red, flushed skin. There is functional integrity between *rañjaka pitta* and *bhrājaka pitta* and also between *ālochaka* and *rañjaka*. *Ālochaka pitta* and *rañjaka pitta* work together to maintain the color of the iris.

### Kapha

Moving now to the subtypes of kapha, kledaka kapha is present in the stomach and gastrointestinal tract. It goes into the rasa dhātu and aids in digestion, absorption and assimilation of foodstuff. Dysfunctional kledaka kapha affects digestion in the stomach, duodenum and jejunum. If kledaka kapha is persistently detected, one should think about diabetes as a possible pathological condition.

Avalambaka kapha is present in the lungs, pleura, pericardium, bronchi, bronchioles and alveoli. Avalambaka kapha enters the heart, circulates throughout the body and nourishes all kapha systems. A spike at avalambaka kapha indicates a possibility of bronchial congestion, pleural effusion, pneumonia, bronchitis or other lung conditions. It may also suggest a pericardial condition or involvement of the vital capacity of the lungs.

A dysfunction of *avalambaka kapha* may cause pain in the mid-back. The thoracic vertebrae, T-4 through T-12, are connected to the mediastenum and mid-back tightness. The emotional aspects of *avalambaka kapha* are unresolved, deep-seated grief and sadness in the lungs. A history of smoking or inhaling drugs like cocaine may affect *avalambaka*.

Bodhaka kapha is associated with the tongue, gums and teeth. It is present in the saliva of the mouth where it governs the digestion of carbohydrates and assists digestion via kledaka kapha. If bodhaka kapha is involved, the person may have receding gums, gum abscesses or dental cavities. Bodhaka kapha dysfunction can be expressed through the pulse in people who are sensitive to sugar and carbohydrates. Bodhaka kapha also perceives the different tastessweet, sour, salty, bitter, pungent, astringent-and its dysfunction can create perverted taste in the mouth. The saliva may taste salty even though no salt is eaten, or the mouth may have a bitter taste without the consumption of a bitter substance. Taste is perverted in the rasa dhātu, so bodhaka kapha is directly connected to the rasa dhātu. The patient of diabetes has a craving for sweet or may experience a sweet taste in the mouth. All six tastes must be present equally for balance. If rasa lacks sufficient sweet, for example, then there is a craving for sweet.

Tarpaka kapha is associated with the brain, the meninges as well as the white matter. The functional element of the gray matter is sādhaka pitta and the white matter is tarpaka kapha. It is also present in the sinuses and the middle ear and is the material from which a neuron is formed. The job of tarpaka kapha is to nourish every sensory perception and to store those perceptions as concrete experience. Every experience is recorded on the sensitive film of tarpaka kapha. Functionally it is connected to the astral body and all past life memories, experiences and knowledge are stored within the matrix of tarpaka kapha. Tarpanam means nourishing the senses. All sensory perceptions—tactile, optical, olfactory, auditory and gustatory—are carried to tarpaka kapha by prāna vāyu where they crys-

tallize and are recorded within the sensitive film of the brain cells.

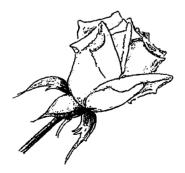
Tarpaka kapha is the sensitive film on which is crystallized every experience, knowledge and information processed by  $s\bar{a}dhaka$  pitta. Neurotransmitters are included in  $s\bar{a}dhaka$  pitta and these neurotransmitters are responsible for the synthesis and processing of acetylcholine into serotonin and melatonin. While this transformation into consciousness, alertness, happiness and knowledge is the function of  $s\bar{a}dhaka$  pitta, all these functions take place on the screen of tarpaka kapha. When watching a movie, one needs light. That light is  $s\bar{a}dhaka$  pitta and the projecting factor is  $pr\bar{a}na$ , but the movie screen is tarpaka kapha. Therefore, there is a functional integration between  $pr\bar{a}na$  $v\bar{a}yu$ , the projector, tarpaka kapha, the screen, and  $s\bar{a}dhaka$ pitta, the light. Without that screen, no movie of life is possible.

Paralysis is classified into vāta, pitta and kapha types and tarpaka kapha is involved in stroke paralysis. Dysfunction of tarpaka kapha can create increased intracranial pressure, dizziness, sinus congestion and sensory tiredness. These dysfunctions aggravate prāna which pushes aside tarpaka kapha and creates spaciness and dizziness. In order to protect the body, tarpaka kapha tries to control prāna. Prāna is more powerful and pushes the flow. Mental fatigue is connected to a prāna vāta and tarpaka kapha disorder.

The last *doshic* subtype is *shleshaka kapha* which is present in all the joints and governs joint lubrication. A spike under *shleshaka kapha* may suggest tightness and stiffness of the joints, cracking and popping of the joints or arthritis. In this way the third level pulse reveals physiopathological changes in the body.

Be clear with feeling. Be vivid with perception. Be honest with pure awareness. Every person should keep a journal of his or her own pulse. It is meditation. Upon waking, even before passing urine or brushing the teeth, sit quietly on the bed and feel the pulse. Keep a record. Draw a picture. This is the best way to read one's own book, the pulse. Pulse is the vibration of  $pr\bar{a}na$ , the pulsation of consciousness under

the radial artery. By keeping a record of daily pulse reading, self-knowing unfolds. That is the best way to learn. When one learns how to read one's own pulse, reading the pulses of others will be easy.



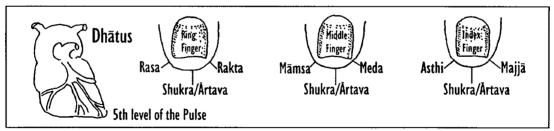


# 5

# Dhātus Through the Pulse

### The Examination of Biological Tissues Level Five

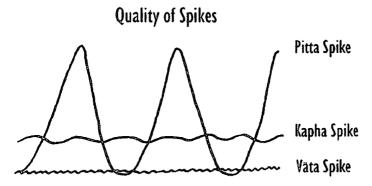
The fifth level represents  $dh\bar{a}tus$  through the pulse, the Ayurvedic theory of biological tissues—*rasa*, plasma; *rakta*, blood tissue;  $m\bar{a}msa$ , muscle tissue; meda, fat and adipose tissue; *asthi*, bone marrow;  $majj\bar{a}$ , bone and nerves; *shukra*, male reproductive tissue and  $\bar{a}rtava$ , female reproductive tissue.



*Prakruti*, which is felt at the deepest level of the pulse, is the basic and most consistent of the pulses. The  $dh\bar{a}tu$  or tissue pulse also reflects a deep layer of physiology. Longstanding imbalances show up in this layer of pulse if the  $dh\bar{a}tu \ agni$  is debilitated.  $\bar{A}ma$  and doshic influences may cause this dysfunction. The condition of  $dh\bar{a}tu \ agni$  relates to the quantitative and qualitative production of that tissue. For example, high  $dh\bar{a}tu \ agni$  causes depletion of the tissue while weak  $dh\bar{a}tu \ agni$  causes accumulation of unprocessed raw tissue. A spike under the palpating finger at the  $dh\bar{a}tu$ level shows the tissue agni is working under stress.

First, we will try to detect the spike at the fifth level. Step by step go from the skin down to the fifth level, or the fifth level can be reached by first going to the seventh level, passing up through the sixth level—the level of manas prakruti which we have not yet discussed—and releasing slowly to the fifth. Here the quality is slightly different. Normally a healthy dhātu doesn't show a spike. But if a dhātu is weak and is affected by vāta, pitta, or kapha, a spike will be present.

Find the location of the spike to determine if that particular *dhātu* is working under stress or if that tissue is weak. Doshas are moving through the dhatus and the quality of the spike is very important. If it is sharp and uplifting, it is pitta. If it is dull and moderate, it is kapha. A delicate, thready, feeble spike is vāta. If it is under the site of rasa and there is a vāta spike, that means vāta is weakening the rasa dhātu. If you feel a spike along the central part of the tip of any of the three fingers, there is involvement of shukra or *ārtava*. If this spike is under the ring finger, there may be excess kapha in the shukra. If this spike is beneath the middle finger, there is excess *pitta*; and a spike at the central curvature of the index finger indicates excess vāta in the shukra (refer to the diagram). Shukra is a highly enriched *dhātu* which has the capacity to create new life. Healthy dhātus don't allow the doshas to escape through the pulse. But if the *dhātu* is weak, the *doshas* are present in the pulse and can be felt.



### Disorders of the Dhātus

Specific disorders of the *dhātus* may be present if a spike is found at the fifth level and we will now turn our attention to how these imbalances manifest in each of the tissues.

### Rasa

If a vāta spike is found at the rasa dhātu site, the person may have dehydration or dry skin, or poor circulation and cold skin. There is a possibility of blackish or brownish discoloration of the skin and the skin may become cracked and rough.

A pitta spike at the rasa dhātu site indicates that excess pitta is flowing through rasa dhātu leading to pyrexia (fever), hot flashes, acne, rash or eczema.

A kapha spike at the rasa dhātu site indicates the possibility of dermoid cysts or the skin may become thick and even sclerodermic. Kapha in rasa dhātu also shows lymphatic congestion and kapha-types of allergies such as colds or sneezing. Don't jump directly to the conclusion of a serious condition. First rule out common conditions such as a cold with congestion or cough.

### Rakta

The second  $dh\bar{a}tu$  is rakta. A vāta spike at the rakta  $dh\bar{a}tu$  site shows a mild case of anemia. Look for abnormal pulsation in the external jugular vein. Vāta in rakta  $dh\bar{a}tu$  can create low blood pressure; the person may feel dizzy or have vertigo; or there may be cardiac arrhythmia. A vāta spike may also denote the condition of vāta rakta, which is gout.

A pitta spike at the rakta dhātu site may indicate bleeding disorders such as bleeding gums, bleeding hemorrhoids or bleeding in the gastrointestinal tract which makes the stool tarry black. Pitta in rakta dhātu can be related to hives, rash and urticaria. The person may easily bruise. This condition of excess pitta may lead to sickle cell anemia, because the pitta burns the red blood cells and distorts the shape of the cells.

A kapha spike at the rakta dhātu site indicates high cholesterol, high triglycerides or hypertension. Blood sugar may be high. Kapha is sweet and kapha in rakta dhātu may show hyperglycemia or an inclination toward diabetes. All these conditions are not necessarily present, but there may be a predisposition or family history of these conditions

which can be detected through the pulse. Although the pulse might indicate some abnormality, the person may have no problem or symptom. In that case, it may be genetic. Taking the family medical history of the person will help to clarify this information.

### Māmsa

A vāta spike at the māmsa dhātu site shows muscle tics or spasms, muscle weakness, muscle fatigue, improper coordination and muscle twitching. Another condition is muscle atrophy, because vāta can create emaciation of the muscle.

A pitta spike at the māmsa dhātu site indicates myocytis, bursitis and tendonitis. Longstanding pitta in māmsa dhātu may create muscular rheumatism, a general inflammatory condition creating a rheumatic type of pain. This condition indicates that sometime in the future the person may develop a rheumatic disorder or fibromvalgia. Other manifestations are multiple boils and hemorrhoids. Hemorrhoids arise from the musculature of the blood vessel because of *pitta*. (Hemorrhoids can also be either vāta or kapha type.) The muscular layer of the blood vessel becomes irritated and inflamed, creating piles or hemorrhoids. Uvulitis creates cough and irritation of the throat, which is also pitta in māmsa dhātu. In this condition the uvula becomes inflamed and the irritation causes the uvula to lengthen, creating a blockage to the respiratory passage which can lead to snoring.

A kapha spike at the  $m\bar{a}msa$   $dh\bar{a}tu$  site may indicate fibrodermoid cysts or benign tumors, muscle tumors called myomas and muscular hypertrophy, which means increased size of the muscle. Longstanding, lingering  $v\bar{a}ta$  in the muscle can create emaciation of the muscle while kapha creates hypertrophy. Growth is different from hypertrophy. When there is growth, cells increase in number. In hypertrophy cells increase in size, resulting in only one muscle or a group of muscles becoming unduly large. This observation can be equally true of both skeletal or smooth muscles, because all muscle tissue comes under  $m\bar{a}msa$   $dh\bar{a}tu$ .

### Meda

A vāta spike at the meda dhātu site indicates emaciation. Meda dhātu nourishes the synovia, so there will be lack of lubrication. Vāta in the meda dhātu will eventually create dislocation of the joints because of the drying of the synovial fluid and weakening of the ligaments.

A pitta spike at the meda dhātu site may indicate an inflammatory condition of the kidneys, adrenals or other organs related to meda. All round organs accumulate fat and, when there is excess pitta in meda dhātu, the person may develop fatty degenerative changes in the liver as well. Pitta in meda dhātu also creates acidic sweat and the person may get boils and abscesses.

A kapha spike at the meda dhātu site may indicate multiple lipomas, fibromas, fibrocystic breasts, renal calculi, gallstones and sebaceous cysts. Sebaceous cysts are located close to the midline of the body. Urine carries kleda (the liquid component of kapha) from meda dhātu. If there is excess pitta in meda dhātu, the kleda becomes acidic and creates nephritis. Due to nephritis a person gets hypertension. Nephritis begins with pitta but ends with kapha. Albuminuria will also be common if kapha is in meda dhātu.

### Asthi

A vāta spike at the asthi dhātu site may indicate cracking and popping of the joints, osteoporosis, and degenerative arthritis. The hair and nails may become brittle and cracked and the person may start losing hair owing to brittleness. However, in this condition the hair can grow normally again once vāta calms down.

A pitta spike at the asthi dhātu site may indicate periosteitis and severe loss of hair. Pubic and axillary hair will be lost when shukra or ārtava dhātu is affected. The person may get repeated fungal infection of the nails or tooth abscesses.

A kapha spike at the asthi dhātu site may indicate osteoma, swollen joints with effusion and Koch's knee, which is tuberculosis of the knee joint. Kapha in asthi dhātu may also lead to bony deformities and deformities of the nails.

### Ma**jj**ā

A vāta spike at the majjā dhātu site may indicate neurological symptoms such as tingling, numbness and loss of sensation. Sensory perception of touch, pain and temperature may be diminished. In its mild form, when vāta goes into the majjā dhātu, the person may have insomnia, hyperactivity and raging thoughts. It can create strabismus (crossed eyes) and ptosis. Vāta in the majjā dhātu can also affect māmsa dhātu and disturb coordination and tone of the muscle.

Muscle tone is maintained by the integrity between tar-paka kapha, shleshaka kapha, prāna vāyu and vyāna vāyu. If this functional integration is disturbed, the person may develop either hypertonia (rigidity) or hypotonia (flaccidity). When tarpaka kapha is involved, an upper motor neuron lesion leads to increased rigidity. Reflexes will be exaggerated (hypertonia) owing to the tarpaka kapha disorder. So by disturbing the physiology of tarpaka kapha, vāta in the majjā dhātu may lead to Parkinson's disease, epileptic fits, grand mal epilepsy, petit mal epilepsy and convulsions.

In a shleshaka kapha disorder, which involves a lower motor neuron lesion, reflexes will be abolished. When vāta affects shleshaka kapha in the majjā dhātu, it will lead to loss of tone, hypotonia. The lower motor neurons contain -shleshaka kapha within the intercellular spaces of majjā dhātu as well as in the joints. A lower motor neuron type of paralysis creates rapid muscle wasting and changes such as ulceration of the tissues. These are serious conditions. Stroke paralysis is a classical example. Depending upon the location of the lesion, either upper or lower motor neurons, the resulting condition can be immovable, rigid musculature or immovable, flaccid musculature.

A pitta spike at the majjā dhātu site indicates demyelination of the nerve sheath leading to multiple sclerosis. Pitta creates inflammation, neuritis or inflammatory conditions eventually manifesting as meningitis or encephalitis. These are serious conditions, but less serious conditions are neuralgia and sciatica. *Pitta* in the *majjā* dhātu can create herpes zoster, which is an acute inflammation along the track of the nerve or optic neuritis which precedes multiple sclerosis. If a person has *pitta* in *majjā* dhātu, it should be treated, because it can lead to serious problems. On the level of the mind, *pitta* in *majjā* dhātu may create personality problems such as schizophrenia. Take this condition seriously and cool down the *pitta*.

A kapha spike at the majjā dhātu site indicates hydrocephalus in children, which is increased intracranial pressure, and tumors, either in the gray matter or in the white matter of the brain. A tumor in the white matter involves tarpaka kapha. Another condition is neurofibromatosis, a disease called elephant man because of the appearance created on the body. Excess kapha in majjā dhātu can create hypersomnia, lethargy, depression and melancholia.

### Shukra and Ārtava

When  $v\bar{a}ta$  is in *shukra* or  $\bar{a}rtava$ , those *dhātus* become dry and debilitated. Men as well as women have menopause. *Shukra dhātu* is active in a man from age 16 to 70 and  $\bar{a}rtava$  is active in a woman from age 12 until age 50. Men after age 70 and women after age 50 can experience loss of energy in *shukra* and  $\bar{a}rtava$ , leading to low libido.  $V\bar{a}ta$  in *shukra dhātu* can lead to premature ejaculation in a man. In the same way,  $v\bar{a}ta$  in the  $\bar{a}rtava$  manifests as menopause. If a woman has had a hysterectomy, the pulse will show  $v\bar{a}ta$  in the  $\bar{a}rtava$  because of the creation of empty space.

A pitta spike at the shukra dhātu site may indicate a previous history of architis, epididymitis, prostatitis or a family history of some prostate problem. Pitta in ārtava dhātu shows endometritis, fibroid tumor or multiple miscarriages. When there is excess pitta in ārtava dhātu, a woman may have sensitive nipples and tender breasts and this pitta can affect stanya, lactation. There is a functional relationship between ārtava and stanya. Other pitta conditions include Bartholin's gland inflammation, cervicitis or cervical dysplasia, which is pre-cancerous. Pitta in ārtava dhātu can

create oophoritis, leading to painful ovaries. In some individuals it may lead to vaginitis—several types of fungal infection in the vagina, including yeast and chlamydia.

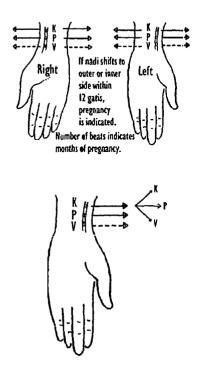
A kapha spike at the shukra dhātu site may indicate prostatic calculi, testicular tumor, testicular swelling or hydrocele, which is an accumulation of water within the scrotal skin. This condition may also be due to *pitta*, if inflammation is present. Kapha in ārtava dhātu may manifest as ovarian cyst or cystic ovary and pseudo-pregnancy. The woman has a strong desire to become a mother but endometriosis blocks the tube and the woman develops a false pregnancy. The cells of the uterus lose their intelligence, think that the uterus has conceived and continue to grow. This condition is called gulma in Sanskrit. Sometimes vāta in ārtava can create ectopic gestation, tubular pregnancy; however, this condition may also be due to a blockage by kapha. When kapha partially obstructs the tube, tubular pregnancy can occur.

### Other Aspects of the Fifth Level Pulse

### Pregnancy

Pregnancy can be detected at the fifth level at the site of the  $\bar{a}rtava$  pulse in a woman. If the  $n\bar{a}di$  shifts toward the lateral side (the thumb side, the radial border) or toward the medial side (the little finger side, the ulnar border), it indicates pregnancy. It can be felt on both the right and left sides. If the  $n\bar{a}di$  shifts laterally, it is a male fetus and a medial shift indicates a female fetus. This pulse can be felt within 15 to 30 days after conception, so the  $\bar{a}rtava$  pulse is very important for early detection of pregnancy.

While taking the pulse of a pregnant woman, pay complete attention and count to 12 vegas or beats. Within 12 vegas the number of times the pulse shifts to a different direction will help to detect the time of conception. Within 12 beats the pulse will shift either to the outer or inner border. If it shifts once, it is the first month of pregnancy. If it shifts twice, it is the second month of pregnancy. If it shifts three times, it is the third month of pregnancy. If it swins, it will shift to both sides—outside and inside. Being able to



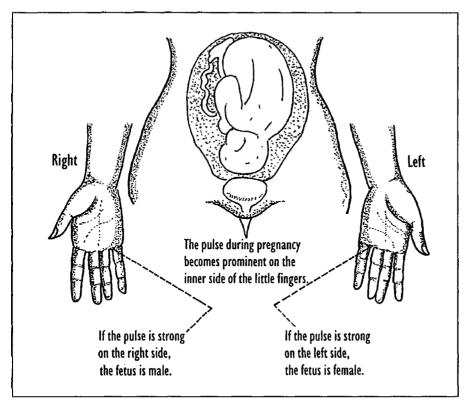
perceive these shifts depends upon clear perception and sensitive awareness.

During the shift, if there is an interruption of the *pitta* or  $v\bar{a}ta$  spikes, it signifies either miscarriage, obstructed labor or placenta previa. If the *gati* under the *kapha* and *pitta* fingers is regular without the interruption of the *pitta* or  $v\bar{a}ta$  spikes, it denotes a smooth, normal delivery. A shift under the  $v\bar{a}ta$  finger shows the woman has been pregnant for a short period of time and there is a *gandakāla* to the fetus. A  $v\bar{a}ta$  spike under the *kapha* finger denotes ovulation. The number of beats between shifts represents the number of days since ovulation.

To detect the unborn child's *prakruti*, go to the fifth level and focus attention at the central part of the fingers. If the shift occurs under the index finger, the child's *prakruti* is *vāta*. A shift under the middle finger indicates *pitta*. If the shifting is under the ring finger, the child is *kapha*. If shifting is felt under two fingers, the child is dual *doshic*, such as *vāta-pitta* or *pitta-kapha*. The feel of the *ārtava* pulse is different in pregnancy. If there is a disorder of *vāta* and there is no pregnancy, there will be a spike under the index finger, but there will be no shift. That spike is different from a shift. A spike goes up and a shift moves horizontally.

There is also another way to confirm pregnancy. Feel the pulse on the lateral or inner side at the base of the little finger on both the right and left hands. If the pulse at this location is prominent, it indicates that conception has taken place. If it is more prominent on the right side, the fetus is male. If it is more prominent on the left side, female. The little finger pulse is a confirmative test. This pulse also indicates ovulation. If the spike is stronger and the woman is not pregnant, the indication is ovulation.

Let me explain once again. We are feeling the pulse at the fifth level at the  $\bar{a}rtava dh\bar{a}tu$  location. Feel the pulse for a minimum of 12 beats. Within 12 beats, if there is a horizontal shift, a pregnancy is indicated. If the shift is to the outside, toward the radial bone of the client, the conceived fetus is male. If the shift is to the inside, toward the ulnar bone, the conceived fetus is female. How can we distinguish

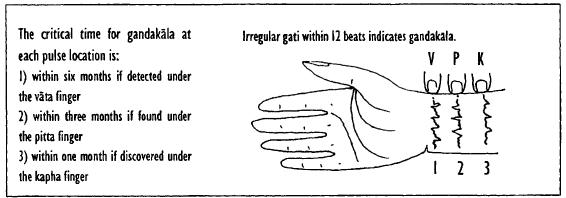


this pulse from *ārtava vikruti? Vikruti* doesn't shift. It will give only an upward spike.

### Gandakāla in the Fifth Level Pulse

In between the astral body and the physical body there is a  $n\bar{a}di$  and that  $n\bar{a}di$ , called *chitra*  $n\bar{a}di$ , is expressed here in the fifth level of the pulse. The events of *gandakāla* come to the physical level through *chitra*  $n\bar{a}di$ . It may not be a pathological condition that will manifest; it may not be a psychological condition; it may be a spiritual event or an astral occurrence that will happen to the person. This indication or warning of the future will be felt only in the fifth level. This pulse shows how we bridge intelligence and intuition and the knowledge gained from this pulse comes from intuition. I am talking about something beyond logic and that which is beyond logic is difficult to put into words.

To find the gandakāla pulse, once again go to the fifth level of the pulse at the *shukra/ārtava* location. This pulse is entirely different from the other pulses we have discussed at the fifth level. The gandakāla pulse indicates a vulnerable time during which some sickness or serious event may happen. It indicates a need to change the diet and lifestyle, the need to rest, read and relax. It is very important to know this pulse. It gives expression of movement in the  $n\bar{a}di$ , reveals that there is order in chaos and that we can tune into deep and pervading cycles of influence. We can give a warning bell to the person. There may not be any pathology now. It may be connected to the astral body karmically and may manifest later as illness or accident, but something is going to occur.



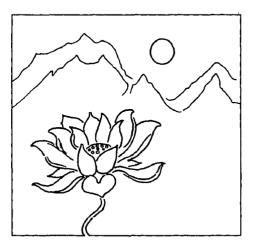
An irregular rhythm under the  $v\bar{a}ta$  finger (index finger) within 12 beats denotes gandakāla within approximately six months. An irregular rhythm under the *pitta* finger (middle finger) within 12 beats indicates gandakāla within three months. Irregular gati under the kapha finger (ring finger) means that within one month there will be gandakāla. This pulse is felt at the ārtava/shukra location but has nothing to do with the dhātu.

There is another method of taking the pulse. Suppose you are looking at a person. "Look" directly into the third eye of that person and then feel your own pulse. As you tune in with that person, you start feeling that person's pulse in your own. That is called tele-pulse and can also be done at a distance.

I have shared with you what to see, when to see and how to feel. But you have to practice on your own pulse, reading all seven levels of the pulse. You will learn by self-observation. Then also read the pulses of family members to gain

more experience. After reading hundreds of pulses, new centers are sensitized at the tips of the fingers and through those centers you will develop different doors of perception. It takes the examination of a minimum of one thousand pulses in order to develop these skills of tactile perception.

Ayurveda, to a certain extent, is a science: it is logic, it has philosophy, it has anatomy and physiology, it has pulse reading, it has inspection, palpation and percussion. In this chapter we have gone into other realms which show that Ayurveda has great spirituality, profound mystic quality and can lead to highly developed intuition. When one learns Ayurveda, one's life will be changed. One will start thinking in terms of the beyond, in terms of the immeasurable and in terms of the unknown. The unknown is not unknowable. It is knowable. But the unknown is in the subconscious and the known is in the conscious. The meeting point of the unknown and the known is the meeting point of the conscious and subconscious. There is a door to the superconscious and in the superconscious state the unknown becomes knowable.





# 6

# Ojas, Tejas, Prāna

## The Subtle Refined Essences of the Tissues Level Four

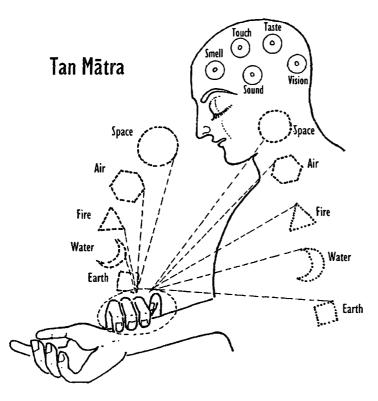
सत्त्वमात्मा शरीरं च त्रथमेतत्रिदण्डवत् । लोकस्तिष्ठति संयोगात्तत्र सर्वं प्रतिष्ठितम् ॥ च. सू. १/४६

The body, mind and soul exist together as one unit (the tripod of life), as all things in the universe exist together in harmony.

Ca. Sū. 1:46

The body, mind and spirit exist together in daily life as one unit just as all things in the universe exist together in harmony. In reality we are consciousness, pure awareness, and the body is an expression of that consciousness. One way of creating that quality of pure awareness is to pay attention both to the outer object and the inner movement of sensation simultaneously, in which the tan mātras are revealed. There are five elements-Ether, Air, Fire, Water, Earth---and they each have respective tan mātras. Sound is the subtle tan matra of Space, touch is the tan matra of Air, vision or sight is Fire, taste is Water, and smell, the olfactory sense, is the subtle tan mātra of Earth. So the grosser five elements are merged into five subtle tan matras. The outer object stimulates the inner senses, through which the mind is touching the outer object by way of the inner tan *mātra*. In that bridge we experience perception.

Our mind consists of five  $tan m \bar{a} tric$  substances. The external sound stimulates the inner  $tan m \bar{a} tra$  of the mind



and the inner  $tan m\bar{a}tra$  meets the outer sound. There is also touch in the mind. We are constantly touching the outer environment through the sensation of touch—the air and objects. The outer touch through the skin stimulates the inner touch of the mental faculties.

The examination of pulse is to be in contact with sparsha tan mātra, which is nothing but the tactile sense of touch. In a way, tan mātra is a vehicle. Our consciousness goes out with the tan mātra and touches the outer object of perception. So the five tan mātras of sound, sight, smell, touch and taste are used by Ayurvedic physicians, or vaidyas, in order to diagnose the problem. These five tan mātras are our doors of perception, our innermost instruments of experience.

We have been feeling the radial artery. The pulsation of the radial artery corresponds to the heart beat and the heart is the center of the five *tan mātras*. When I say the word "heart," it is not just the physical heart but also a center in our innermost being from which we perceive. In the cranial अर्थे दश महामूलाः समासका महाफलाः । महन्नार्थश्च हृदयं पर्यायेरुच्यते बुधैः ॥ ३ ॥

There are ten vessels of great biological importance attached to the heart. Mahad, artha and hridaya are the synonyms.

षडङ्कमङ्गं विज्ञानमिन्दियाण्यर्थपञ्चकम् । आत्मा च सगुणश्चेतश्चिन्त्यं च हृदि संश्रितम् ॥४॥ च. सृ. ३०/३-४

The body with its six limbs, understanding, the senses, five sense objects, consciousness, mind and its attributes are all dependent on the heart.

Ca. Sū. 30:3-4

cavity there is the brain—the meninges, dura mater, arachnoid, pia mater, the gray matter, the white matter. Inside the core of the white matter there is space and there are small spaces between neurons called synaptic spaces. That synaptic space in between the neurons is functionally connected to the space within the brain called *chidākāsh*. Within that space is a pulsation of *prāna* and a flow of *ojas* and *tejas*.

*Prāna* carries a sensation through the vagus nerve and the phrenic nerve into the cardiac plexus. In Sanskrit the pulsation is called *prāna spanda*. *Spanda*, which is the *prānic* current from the hypothalamus to the heart, moves at intervals of .08 seconds and stimulates the pacemaker sinoatrial node, the SA node, which is present in the right atrium. From there the *prānic* stimulation is carried down to the AV node, the atrioventricular node. Thus *prāna* regulates the movements of the heart.

The heart is a type of battery. In its rhythmic movement the heart generates electricity that is carried through the blood vessels and even to the skin. This movement of cardiac activity can be traced with a sensitive galvanometer. So pulse not only represents the heart pumping, it also represents the flow of *prāna* and the flow of *vyāna*. All the subtypes of *doshas* are moving in the subtle form of the *tan mātras*.

In this chapter we will switch our attention to the fourth level of the pulse, which is the level of *ojas*, *tejas* and *prāna*. *Ojas* is the pure essence of all *dhātus* (tissues) and is produced during the process of nutrition. It can be compared to the modern concept of albumin. *Ojas* includes albumin but albumin alone is not *ojas*. *Ojas* also includes protein and globulin, which are necessary to maintain immunity. But to say that globulin is *ojas* doesn't convey the entire meaning. *Ojas* is not an abstract concept but is an actual substance. Ayurveda has described *ojas* as two types. Inferior *ojas* is half *añjali* (see Glossary), which moves throughout the body, and superior *ojas* is eight drops, which is present in the heart. This *ojas* has the smell of ghee and rice. It is a little yellowish-white in color, cool in attribute and tastes like honey. *Ojas* moves through the plasma and is represented at

हदि तिष्ठति यच्छुद्धं रक्तमीषत्सपीतकम् । ओजः शरीरे संख्यातं तन्नाशान्नाविनश्यति ॥ ७४ ॥

The white, yellowish-red fluid that lodges in the heart is called ojas (the refined essence of all tissues of the body). Owing to its loss, a person dies.

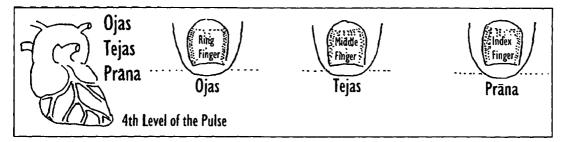
प्रथमं जायते ह्योजः शरीरेऽस्मिञ्छरीरिणाम् । सर्पिर्वर्ण मधुरसं लाजगन्धि प्रजायते ॥७५॥ च. स्. १७/७४:७५

Ojas (vital essence) is the first thing created in the body of all living beings. Its color is like ghee, it tastes like honey and smells like roasted puffed rice.

Са. Sū. 17:74

the fourth level by the pulsation under the ring finger, the *kapha* finger.

Tejas can be compared to hormones and amino acids. There are 21 important amino acids that regulate cellular metabolism. Tejas is necessary for  $p\bar{l}lu \ p\bar{a}ka$  and pithar  $p\bar{a}ka$ , the agnis of cellular and nuclear metabolism. Tejas is also responsible for intelligence, understanding and comprehension at the cellular level. It is felt under the middle finger at the fourth level.



Every cell is a center of awareness, every cell has a consciousness and every cell is a unit of life. At one time each of us was an atomic cell. From that one atomic cell, the sperm, and one ovum, which is also unicellular, a complex multi-cellular mammal developed. There is a continuous flow of communication between any two cells of the body and that flow of communication is called  $pr\bar{a}na$ , the flow of intelligence. The  $pr\bar{a}na$  spike is found under the index finger at the fourth level.

When feeling one's own pulse, the right hand pulse in the male and the left in the female, gently touch the superficial skin and feel the throbbing at the first level. Go down slightly and feel the spike change at the second level. Then at the third level the spike changes again. With a delicate pressure go into the fourth level where the spike once again changes. At that level feel the strength and quality of the spike. A spike under the *kapha* finger denotes the strength of *ojas*. The middle finger gives the power of *tejas* and the index finger gives the strength of *prāna*. When the spike is weak, *prāna* is weak; when the spike is strong, *prāna* is strong. In the same way, if the spike under the middle finger is feeble, *tejas* is low; if the spike is strong, *tejas* is strong. Again, to detect these differences is subjective. Three plus (+++) is good *ojas*. Two plus (++) is moderate *ojas*. One plus (+) is very low *ojas*. One plus is 25 percent, two plus 50 percent, three plus 100 percent. One hundred percent, the superfine quality of *ojas*, is present in a perfectly healthy individual. Now feel the pulse, bringing all *tan*  $m\bar{a}tras$  to the tip of the finger. Ideally, *ojas*, *tejas* and *prāna* should be equal—three plus—and that is good health. However, we work hard, we have troubling emotions, we have responsibility and all these stresses deplete *ojas*.

In certain AIDS patients a very feeble *ojas* pulse is present, because their *ojas* is depleted. If *tejas* is four plus, that is too much and high *tejas* burns *ojas*. For example, in multiple sclerosis, the myelin sheath, which is composed of *ojas*, is being burned by high *tejas*. Therefore, there is demyelination occurring which leads to multiple sclerosis. That is why patients of multiple sclerosis are exhausted when exposed to too much cold or hot weather. Both heat and cold bother them. So four plus *tejas* is abnormal. Four plus *ojas* is too much *ojas* and too much *ojas* is raw *ojas*, which creates diabetes and may lead to high cholesterol and high triglycerides. High *prāna* makes a person hyperactive and anxious. *Ojas* is the pure essence of *kapha*; *tejas* is the essence of *pitta*; and *prāna* is the essence of *vāta*.

### Treatment of Depleted Ojas, Tejas and Prāna

Depleted *ojas* can be treated with almond milk. Soak 10 almonds in a cup of water overnight. In the morning peel off the skins and put the almonds in a blender. Add one cup of hot milk. If the person is allergic to milk, use soy or rice milk. Add one teaspoon of date sugar, a pinch of cardamom, a pinch of ginger powder and one teaspoon of ghee and blend together. Regular brown sugar, sucanat or turbinado may be used instead of date sugar. Saffron may also be added as well as a few drops of rose essence. This is a wonderful, rich drink to take in the morning to build up *ojas*, and this drink is also good for building *shukra* after having sex. If cholesterol is a concern, use skim milk. *Ghee* 

increases the good cholesterol, called HDL, but if one's total cholesterol is high, don't take *ghee*.

For depleted *tejas* use one pinch of *trikatu* (ginger, black pepper, Piper longum) and one teaspoon of honey. Take this combination about 15 minutes before lunch and dinner. These herbs taken before food kindle *agni* and act as an appetizer and digestive. Chewing a small piece of ginger with a pinch of salt and a few drops of fresh lime juice before eating will also kindle *jāthar agni*, thereby building *tejas*.

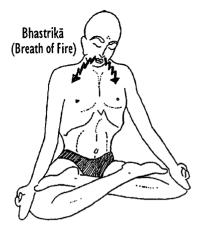
By using certain Ayurvedic herbal formulas, one can improve ojas. Pippali (Piper longum) with honey and ghee is a specific rasāyana for prāna. Trikatu (ginger, black pepper and Piper longum) with honey is a special rasāyana for tejas. Taking one-fourth teaspoon of triphala with one teaspoon of honey and ghee will help to create balance of ojas, tejas, prāna. Take this formula in the early morning. This is a wonderful rasāyana for ojas, tejas and prāna. There should be no fear of increasing cholesterol, because honey aids the regulation of cholesterol. In addition, shāmbhavī mudrā (see page 112) helps to balance ojas, tejas and prāna.

To build *ojas* one can also take ghee. Castor oil is beneficial for *vāta* and, therefore, good for *prāna*. But to build up *tejas*, castor oil would not be a good idea. Bitter ghee, *tikta ghrita*, is good for *tejas*. *Tikta ghrita* enhances *tejas* but doesn't increase *pitta*. Take one teaspoon on an empty stomach twice a day, morning and evening, followed by one-half cup of warm water as a vehicle.

In order to improve  $pr\bar{a}na$ , do  $pr\bar{a}n\bar{a}y\bar{a}ma$ . Sit comfortably on the floor in a cross-legged posture. If you are not comfortable in this position, then sit upright on the front edge of a chair with your feet flat on the floor. Close the right nostril with the right thumb and inhale gradually through the left nostril into the belly, not into the chest. On inhalation, count 1-2-3-4. After a full inhalation, close both the nostrils and do a gentle chin lock as you hold the breath in the belly and count 1-2-3-4, up to 16. Use a count of 4 to inhale and 16 to retain. Then open the right nostril while





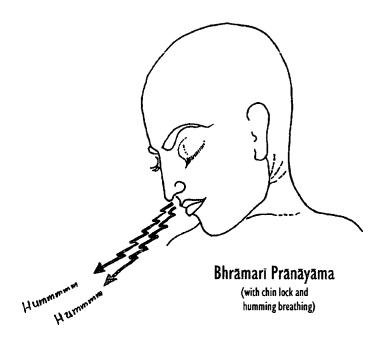


holding the left nostril closed with the ring and little fingers and exhale through the right nostril while counting to 8. The exhalation should be slow and steady as you count 1-2-3-4-5-6-7-8. The speed of counting should be equal, with a count of 4 for inhalation, 16 for retention, and 8 for exhalation. If this approach is too complicated or difficult at first, then inhale only for 2, retain up to 8, and exhale for 4 counts. After exhalation from the right nostril, hold the breath outside for awhile then inhale through the right nostril, hold the breath into the belly by closing both nostrils, hold, and then exhale through the left nostril. Repeat, alternating the nostrils through which you inhale.

If the mind is too busy with the counting, just inhale slowly into the belly through the left nostril by closing the right nostril. After full inhalation close both nostrils and do a chin lock. Place your total attention behind the belly button. When oxygen is depleted in the lungs, one gets a swallowing reflex, which is the sign to exhale. Then slowly exhale through the opposite nostril. During exhalation there should be a continuous slow flow. Let the air dissolve into the outer space. Stay outside for a moment, then again inhale. Inhale through the right nostril, retain, and exhale through the left. Inhale through the left, retain, then exhale through the right. During breath retention do a chin lock and during exhalation release that lock. You use a chin lock to avoid direct pressure in the brain through the carotid artery. Do five prānā yāmas, rest for one minute, then again do five prānāyāmas. In this way the vital capacity of the lungs can be increased. This prānāyāma, as well as the others in this book, are best learned from an accomplished teacher.

Another  $pr\bar{a}n\bar{a}y\bar{a}ma$  is *bhastrikā*, breath of fire. Inhalation is passive, but exhalation is active with a little force. Start slowly, then increase the speed. Imagine a steam engine moving slowly and then have the train start moving faster. This action is thoraco-abdominal hyperventilation. Do one round of 30 strokes or exhalations, then rest for one minute. This *prānāyāma* will increase the vital capacity of the lungs. Practice five rounds of *bhastrikā* in the morning and five rounds in the evening. It will help to relieve allergy, asthma and will help make the lungs strong and

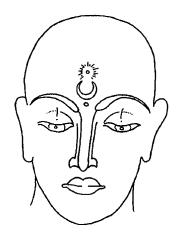
healthy. Don't do *bhastrikā* during menstruation or pregnancy. If your *pitta* is high, substitute *shītalī*, a cooling  $pr\bar{a}n\bar{a}y\bar{a}ma$  that involves breathing through a curled tongue.



Another  $pr\bar{a}n\bar{a}y\bar{a}ma$  is called *bhrāmarī* (humming). On inhalation, constrict the epiglottis and create a humming sound. On exhalation the sound is long and low. The inhalation is a female bee and the exhalation is a male bee. If it is difficult to create a humming noise during inhalation, just inhale naturally, take a deep breath into the belly, do a chin lock and then do *bhrāmarī* on the exhale.

Bhrāmarī improves the melody of the voice. In addition, the humming vibrates the nervous system and is a form of sound therapy for the brain. Bhrāmarī is also good for the thyroid, thymus and parathyroid glands. When doing bhrāmari, touch the tip of the tongue to the edge of the soft palate near the back of the roof of the mouth and be sure the teeth are not clenched.

Bhairavi mudrā is also called shāmbhavī mudrā. Shambu is another name of Lord Shiva. In this state prāna is enhanced. One can strengthen prāna with prānāyāma through bhrāmarī and bhastrikā but intense prāna unfolds



Shāmbhavī Mudrā

in the lungs and body through *bhairavi* or *shāmbhavī*. One who practices *shāmbhavī* will be in a state of living *samā-dhi*.

When practicing the *bhairavi mudrā*, one looks at any object, say a wall. When looking at an object, let the eyes look and do not blink the eyelids. The eyes are looking and the eyes are not looking, which means there is no judgment, no recognition, no identification. In Hindu art, philosophy and music everything is a way to God-realization. Hindu philosophy includes the Vedas, Ayurveda, music, art and even dance. Everything is a movement of life. Therefore, the Hindu concept of God is *satyam shivam sundaram*. *Satyam* is the truth, *shiva* the holy and divine and *sundar* is beauty. *Bhairavi* manifests as *satyam shivam sundaram*.

As one looks outside, suddenly the attention goes inside. At that moment expansion of consciousness takes place. One is looking outside but the entire attention is inside, into the center of existence. In that state one finds union with expansive consciousness. One looks around, but there is no choice in the looking, no judgment, just choiceless observation. In this sense the choosers are the losers. The confused mind chooses. The mind that is insecure, agitated and unsatisfied chooses. Please don't misunderstand me. I am talking about a different level of consciousness. In this art of meditation choice has no place. Choice only has a place in that one has chosen this way of meditation, that's all. Look at anything, but in that looking there is emptiness. Thinking stops, breathing becomes quiet and one simply exists as pure awareness. In that state there is great joy, beauty and love. Sit absolutely relaxed, with no tension, and just look at the wall. Slightly open the mouth with no expression on the face. The hands are like an empty bowl facing the sky. Simply look and allow the breathing to become quiet. Enlightenment can come in a fraction of a second.

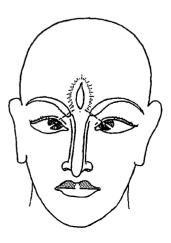
Wherever the eyes and mind go, there is samādhi. Samādhi means equilibrium. In that state, individual consciousness merges with cosmic consciousness and one goes beyond time and thought. In that state, whether the eyes are open or closed doesn't matter. It comes like a breeze without invitation, because this state is your true nature—love, bliss, beauty and awareness. There is no fear, no depression, no anxiety, no worry, no stress. One becomes the witnesser of anxieties, worries and stress. In that state healing occurs.

The pineal gland is stimulated by touching the tip of the tongue to the soft palate near the uvula. Some chemoreceptors are present on the mucous membrane of the palate which stimulate the secretion of serotonin and melatonin. In addition, placing the tongue in this position also helps to secrete somā. Somā brings tranquillity and nourishes ojas, tejas and prāna, because somā is the mother of all ojas, tejas and prāna.

Sit in the lotus pose for meditation. Each knee represents a petal of the lotus. Pressure comes directly to the tip of the spine and the whole vertebral column remains straight. With persistent practice, one can easily sit in a lotus pose for one, two or even three hours and, if one sits properly in a lotus pose for three hours each day, soon enlightenment will come. Sitting in the lotus pose helps to open the heart *chakra*, breathing becomes quiet and *ojas*, *tejas* and *prāna* become balanced. Automatically thinking stops and, even if one decides to think, thought cannot come. To go beyond thought is to go beyond suffering, because thought creates suffering. *Shāmbhavī mudrā* is very powerful. It expands the right and left ventricles of the brain and opens the *chidākāsh*, the space of awareness.

There is another *mudrā* called *samputa mudrā* in which awareness becomes pinpointed and sharp. It opens the third eye and stills the mind. All of these *mudrās* indirectly help to balance *ojas*, *tejas* and *prāna*.

Practicing these  $pr\bar{a}n\bar{a}y\bar{a}mas$  and  $mudr\bar{a}s$  every day will strengthen  $pr\bar{a}na$  and help one move into an expansive state of consciousness. In that state one loves everything—flowers, rocks, birds and trees. A stage will come in *bhairavi* where one feels "I am the sun; I am the star; I am the sky; I am the flower." This unity consciousness is *bhakti*, the love divine. Love and *bhakti* go together. To realize God is so simple, but man has tortured himself. It is good to have discipline but one should do fasting, cleansing, yoga and  $pr\bar{a}n\bar{a}y\bar{a}ma$  without torture. In that way these practices



### Samputa Mudrā

Gazing at the point between the eyebrows, the seat of the "third eye," strengthens insight and improves concentration on the inner flame of awareness, leading to shāmbhavi mudrā. become spontaneous and natural and will balance ojas, tejas and prāna.

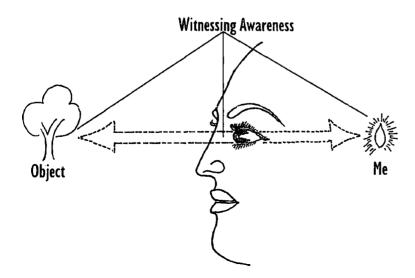


We all need healing. We, as individuals, must bring awareness to our feelings and emotions. Otherwise, we never take responsibility for our healing. We always hold another person responsible for our suffering—either mother, father or some planets in the sky. We need to accept the responsibility that "I am the pain and the pain is I. My pain is my creation; it is my reflection; it is I." We must understand our relationship with our suffering and, in that understanding, we maintain our *ojas*. In that *ojas* there is the beautiful light of *tejas*, which is the perception. And in the flame of attention, grief and sadness burn and we become totally free.

We have to protect our *ojas, tejas* and  $pr\bar{a}na$  through awareness, because awareness is the flame of attention and the flame of attention is the luminosity of *tejas.*  $Pr\bar{a}na$ directs attention to something, creating perception. Attention plus  $pr\bar{a}na$  is perception. There are many things waiting for our perception, but we cannot perceive everything at one time. Perception is a product of time and our perception is a learned phenomenon, which is directed by knowledge and experience. In the perception of observer, object and observation, this trinity becomes one when *ojas, tejas* and  $pr\bar{a}na$ are balanced. This balanced state is perfect health.

When we are honest with our feelings and emotions, *ojas* is building, *tejas* is glowing, and *prāna* is flowing. That is a state of good health, existing at every moment, in every event of life. Ayurveda says every breath, every moment, every event should be lived with total awareness. When listening to someone, at the same time listen to the listener. When looking at an object, at the same moment look at the looker. When you look at me, my body is an object and you are the observer. When I am looking at you, your body is the object and I am the observer.

When you look outside, something goes out, one arrow goes out. At the same time, a second arrow goes into the

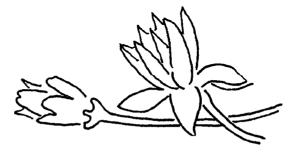


heart to look at the looker. This is called double-arrowed attention. In double-arrowed attention a third phenomenon occurs, which is called witnessing. If you remain in witnessing, you will never get hurt. Forget about your past life. Forget about your future life. Your past life is recorded in your astral body. When practicing this awareness, that light, that flame, that fire of witnessing attention will burn and will relieve the memory of parents' illnesses and past life hurt, as well as suffering from this life. Just take responsibility, sit, meditate and do it. Unless you open your heart, unless you jump into the inner abyss, you are not going to become enlightened. Ultimately you have to knock on your own door; you have to beg at your own door; you have to come back to yourself. Love is within you. God is within you.



Learning is sharing, it is a journey and an investigation together. You have been given a guideline with many charts and pictures. Frame them and put them on the wall. Every morning upon waking, feel your own pulse. Be your own healer, be your own doctor, be your own vaidya, and start reading your pulse. In that way new centers will be created on the tips of the fingers, and those centers will become receptors through which information is received. As your finger receptors become more finely tuned and you continue to study your own pulse, your awareness will be raised and healing will come to you.

The relationship between teacher and taught is sacred and, once the student understands, it stays with him or her. Each student will learn Ayurveda from perception, experience and insight. When insight comes, the light within becomes visible. There is no light other than pure perception. That light, the guru within you, never dies. This guru is not a body; it is not a person; it is pure awareness, pure light, pure perception. Gu means darkness and ru means light, that light which dispels the darkness of ignorance. This knowledge comes from the pure consciousness of the master and the master is within you. That is the beauty of Ayurveda.





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# Manas Prakruti and Vikruti

Maria

## The Mental Constitution and the Present Flow of Consciousness

### Levels Six and Two

We have been learning the ancient art of feeling the pulse and have considered together the first and the seventh levels, the superficial and the deep, as well as the third, fourth and fifth levels. Now we will shift our attention to *manas prakruti* and *manas vikruti* found at the sixth and second levels.

Manas means mind. The mental and physical bodies are bridged together by prāna, the life force. Consciousness is the spirit, the soul, about which modern medical science speaks very little. Because modern medical science places more emphasis on objective proof, it often overlooks subjectivity. The Sanskrit word pratyaksham means what one observes or perceives. Personal perception is limited and to prove everything objectively is difficult. Subjectivity and objectivity must be bridged. Objectivity is limited, but subjective experiences are vast. All subjective experiences belong to the mind and all objective barometers are connected to the body. For this reason it is important to consider manas prakruti and vikruti, which form a bridge between objectivity and subjectivity.

Ayurveda is a science (objective truth), a philosophy (subjective truth) and an art of medicine all in one. It assays the mental, physical, emotional and spiritual components of life—encompassing a complete definition of life. What emerges from this definition is the understanding that life expresses in numerous modes—mental, emotional, physical

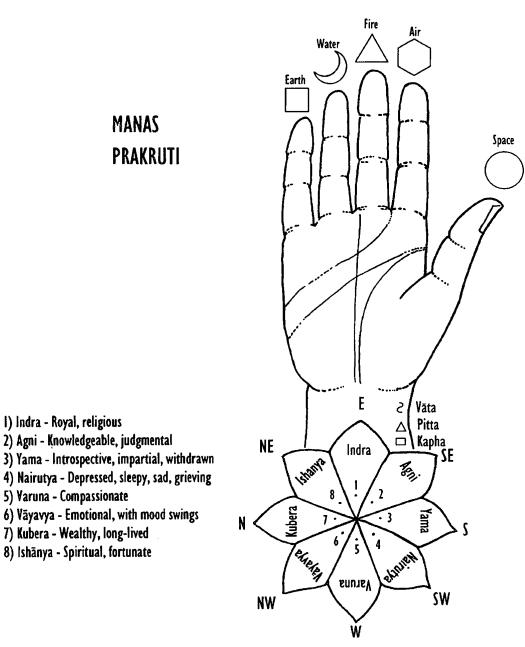
and spiritual. Influences upon us affect one or several of these aspects of life. Therefore, Ayurveda holds that a mental trauma, for example, will have emotional, physical and spiritual implications. Thus each aspect of life both affects and reflects changes in the other modes of existence. Hence, *manas prakruti* is important to assess.

The seventh, the deepest level of the pulse, reveals the physical constitution. The sixth level is the mental constitution. According to Charaka, mind is the faculty which directs the senses toward an object of perception to create contact and then carries the sensation to the intellect to produce knowledge. Charaka also speaks about the pervasiveness of mind. To perceive is a function of mind and all *tan*  $m\bar{a}tras$  are present both within and outside of the mind. The mind communicates with the subtle forces of the *tan*  $m\bar{a}tras$  and, therefore, mind also pervades.

Every object in this world is waiting for our perception, but unless we pay attention to these objects they do not exist for us. Unless the mind directs the senses to a particular object, we cannot perceive that object. Here mind is very important. Touch is everywhere, but touch belongs to the inner mind. The moment an outer object touches the mind, then mind carries that touch sensation to the inner faculty for interpretation. When looking at a star, one is touching that star. It is the touch of perception.

Touch is of three types—sattvic, rajāsic, tamasic. Sattvic, pure perception, gives us knowledge which nourishes consciousness. The cell is a center of consciousness and cellular consciousness is nourished by pure knowledge given by the mind. This process is due to sattva. But if the mind has more rajāsic and tamasic qualities, perception is distorted and distorted perception builds up wrong conclusion, wrong judgment, wrong knowledge and wrong image. These distortions build up  $\bar{a}ma$  and affect the individual psychosomatically.

We will try to understand *manas prakruti* at the sixth level of the pulse, which denotes the flow of consciousness. An important aspect of Indian philosophy is the theory of the five elements. As we have already explained in Chapter



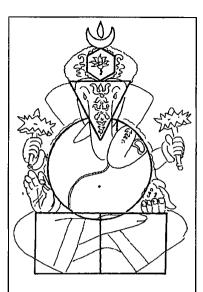
One, page 7, each of the celestial elements has a representative form—circle, Space; hexagon, Air; triangle, Fire; crescent, Water; square, Earth. The same principle is applied to the hand. The thumb represents Space, indicated by a circle. The index finger is Air, indicated by a hexagon. The middle finger is Fire; the ring finger, Water; the little finger, Earth.

When checking for manas prakruti, have the person sit facing the east. This position will help to clarify the reading represented in the diagram. The index finger of the examiner is Air, which is vāta, and is pictured as a wave. The middle finger has a spike like *pitta* and is represented by a triangle. Kapha is composed of the Earth and Water elements, so the ring finger is represented by a square. The lotus at the bottom of the illustration represents the finger resting on the radial artery. Under each finger checking the pulse, one can imagine that there is an eight-petaled lotus. When feeling someone's pulse, use the diagram of this lotus to find the location of the spike. Each petal of the lotus can be numbered for convenience of understanding and the number of the direction should be noted under each finger. For example, under the index finger one might note the direction as  $V_5$ . The middle finger might indicate  $P_7$ . The ring finger may reveal a reading of  $K_1$ .

If the spike is in the east, Petal Number 1, that indicates an Indra personality, which is royal and religious. If the spike is at the position of the second petal, the southeast direction, that shows an Agni personality, which means knowledge. That person is a worshipper of knowledge. The third petal is a Yama personality, impartial. Yama is the God of Death, who loves all equally. He takes away the soul and puts an end to the individual's life. These people with Yama personalities are quite impartial; they love no one, which means they love everyone, and they are also withdrawn and introspective.

A spike in the fourth petal indicates a Nairutya personality. These people love to sleep and are *tamasic*. Indra is *sattvic*, Agni is *rajāsic*, Yama is *tamasic* and the direction of Nairutya is also *tamasic*.

A spike in the west, Petal Number 5, is Varuna, which is *sattvic*. People with a Varuna personality are loving and compassionate. Petal Number 6, which is northwest, is Vāyavya, which is *rajāsic*. The Vāyavya personality is emotional with mood swings. A spike at the seventh petal indicates Kubera, which is *sattvic*. People with this personality are rich in mind and blessed with long life. Petal Number 8 is Ishānya, which is also *sattvic*. These people are fortunate and spiritual. This classification is explained in



Ganesha is an elephant-headed God in Hindu literature. His embodiment represents an expression of the five universal elements. They are as follows:

• The crossed legs, represented by a square, are a manifestation of the physical world through the Earth element.

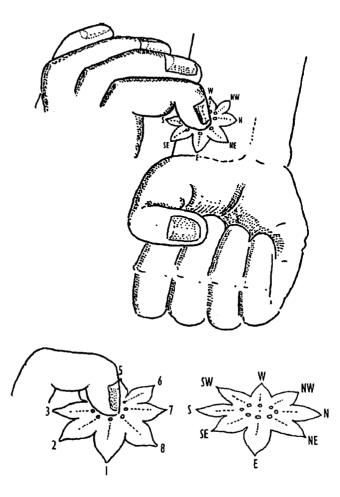
 His belly, shown by a circle, depicts the Space element, which is a vast universal womb, pregnant with billions of galaxies.

• His face, denoted by a triangle, is a symbol of the Fire element, which expresses cosmic wisdom.

• The hexagonal crown is a symbol of the Air element, which denotes cosmic prāna, the flow of intelligence.

• The crescent over the crown is a symbol of soma, the pure essence of cosmic Water. It also represents the mastery over the cosmic mind at the time of creation.

 On the top of the crescent is a flame of light, which is the flame of pure awareness and bliss.



ancient  $n\bar{a}di$  texts, which we are now learning in the twentieth century. These ancient texts tried to bridge subjectivity and objectivity.

Now to learn the technique, go to the deepest pulse at the seventh level. Then gently release the pressure and come to the sixth level, where the spike changes. At the seventh level the spike will be felt at the center of the lotus. With a slight release of pressure to the sixth level, the change of direction will be felt toward one of the petals of the lotus. Try to focus attention under each finger separately. Under the vāta finger find out whether the spike is at Indra, Agni, Yama, or one of the others. Take a note of the reading. Turn your attention to the *pitta* finger and find the direction of the spike. Then feel the *kapha* finger. With this information

manas prakruti can be understood as a mixed prakruti of  $v\bar{a}ta$ , pitta and kapha. The spike under each finger might be at a different petal of the lotus, helping to clarify the understanding of the individual's personality. Don't compare the reading with the prakruti of the subject but just feel the direction of the spike while visualizing the lotus.

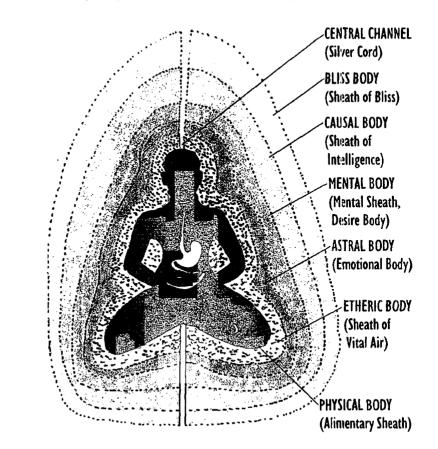
To simplify, pay attention to which finger has the prominent throbbing. Suppose the prominent throbbing is under the index finger. Then read *manas prakruti* under the finger with the most prominent throb, because the mind and consciousness are expressing through that throb. Suppose the prominent throbbing is best felt under the index and middle fingers. Again, compare which is more prominent. Under that prominent finger, meditate and visualize this eight-petaled lotus. This is a subtle perception. There is an eight-petaled lotus under each of the fingers of the examiner and one can read all three fingers, but that is too complicated initially. For beginners it is better to practice on the finger with the prominent spike, one finger at a time.

Once you read your own manas prakruti, turn to a friend and try to feel his or her manas prakruti. Ideally the subject is facing east and the reader is facing west, which will simplify the reading. The tips of the fingers of the person being examined are always visualized as facing the east. However, any direction can be faced as long as the anterior aspect is seen as east and the posterior aspect as west. Keep the finger reading the pulse stationary. Don't move it in all eight directions. This is imagination, but the greatest scientist is gifted with the positive power of imagination. Be a scientist and be imaginative. Use the right hand of the person for a man and the left hand for a woman. The lotus is in the same position on both hands. Don't become confused by the position of the subject's thumb on the right and left hands. The orientation of the lotus is the same on both hands and does not change in its relationship to the position of the thumb. Just keep the orientation of the fingertips of the subject facing east.

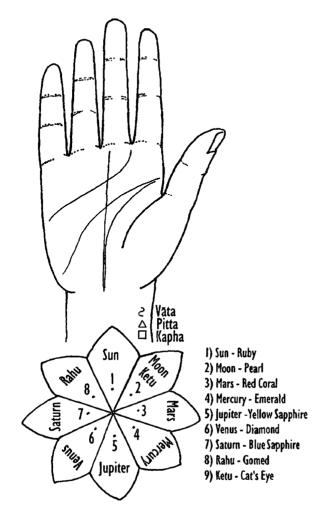
### Planetary Principles in the Nādi

The sixth level of the pulse can also denote planetary principles acting in the  $n\bar{a}di$ . These readings may not correspond to one's Jyotish astrological birth chart. The sixth level of the pulse indicates the status of the mental body. The modern term astral body is composed of the ancient Upanishad descriptions of the *prāna* body and the *manas* body. The movement of *prāna* becomes disturbed by the vibrations of thoughts, feelings and emotions coming from the *manas* body. So the mental body can disturb the astral body and the astral body can disturb the mental body. Before pathological changes happen in the physical body, subtle changes take place in the mental and astral bodies. In other words, the mental and astral bodies play an indirect role in the immune system, affecting *agni, tejas* and *ojas*.

Many times people ask what stone they should wear, on which day they should fast or which deity they should wor-



# Pañcha Koshas and the Five Energy Fields



PLANETARY INFLUENCES IN THE NĀDI

ship. The sixth level of the pulse reveals this information. Read each finger in the same way as for manas prakruti. For example, if the reading of the petal numbers denotes  $V_2P_3K_5$ ,  $V_2$  represents Ketu and the person should wear a cat's eye or a pearl. Petal Number 3 on the *pitta* finger is Mars, so the person should wear a red coral necklace. With this combination of vāta and pitta the person should wear a red coral necklace with a pearl in the center. Petal Number 5 on the *kapha* finger represents Jupiter and the stone to be used is a yellow sapphire. Using the correct gems facilitates healing. These relationships of stones, planets, deities and fasting days are shown in the table on the next page.

Life without a personal deity is without direction, leading to a feeling of ungroundedness. When anchored with a deity, one will never feel lonely or ungrounded. One's connection with a personal deity brings stability, direction and perfume to life. Then the whole life becomes celebration, not a meaningless futile game. It is difficult to have a direct relationship with Almighty God, but worship of a personal deity such as Ganesha, Vishnu, Rāma, Krishna, Christ or Buddha brings communion with higher consciousness. Almighty God is experienced through the personal deity and this deity becomes a bridge to salvation and enlightenment. The chart below is a guide in the choice of the right gemstone and deity.

TABLE 9: PLANETS AND DEITIES			
PLANETS.	STONES	DAY TO FAST	DEITY
Sun (Petal #1)	Ruby (manika)	Sunday	Rāma Gayatrī Devī Christ
Moon (Petal #2)	Pearl (moti)	Monday	Shiva
Mars (Petal #3)	Red coral (pravāl)	Tuesday	Ganesha
Mercury (Petal #4)	Emerald ( <i>panna</i> )	Wednesday	Vithala Vishnu Krishna Buddha
Jupiter (Petal #5)	Yellow Sapphire ( <i>pushkarāja</i> ) Yellow Topaz	Thursday	Dattatraya Lakshmī Balajī
Venus (Petal #6)	Diamond (hira, indramani)	Friday	Lakshmī Sarasvatī Durgā Allah
Saturn (Petal #7)	Blue Sapphire ( <i>nīlam</i> )	Saturday	Shani Deva Hanuman
Rahu (Petal #8)	Gomed (tapomani)	Monday	Rahu
Ketu (Petal #2)	Cat's Eye (vaidūrya, lasnya)	Thursday	Ketu

The choice is also guided by which *doshas* are active in the *manas prakruti* and *vikruti*. If  $v\bar{a}ta$  is active, the person should wear a cat's eye, which will calm  $v\bar{a}ta$ . There is a bridge between *dosha*, planets and gemstones in *manas prakruti*. When one fasts on a specified day, the blessing of that particular planet is received. In Ayurveda there is a branch of astrology called astrotherapy (*graha chikitsā*) which addresses the influences of the planets upon the person.

Suppose a person has a *pitta* problem and under the *pitta* finger the spike is in the Mars position (Petal Number 3). The high *pitta* is due to the affliction of Mars in the mind. Wearing a red coral necklace will absorb the Mars energy and fasting on Tuesday will calm down *pitta* and the Marsprovoking influence. Fasting according to these principles will eliminate mental impurities or  $\bar{a}ma$ .

Enlightenment has many doors and there are many paths to realization. God never asks through which door you come, in which car you arrive or on which flight. He is just happy to see you and bless you. There are many ways to become enlightened-mantra yoga, jñāna yoga, bhakti voga, karma voga, chanting the holy name of God, fasting, doing pūjā, doing worship-all these ways lead to God. Therefore, one's entire life becomes a celebration. Ayurvedic culture makes life a ceremony. Even death becomes a ceremony. People take the body, carry it to the cremation yard, chant mantra, burn the body to ashes and carry the ashes to the sacred river. The deceased person's soul is happy and that soul has equal energy to that of God. Therefore, never speak bad things about a deceased person. This is very important. A person makes his life miserable if he carries unresolved emotions about a deceased father or mother. Never ever carry unresolved anger about a deceased person. When a person has ceased to exist physically, that anger should be resolved and released.

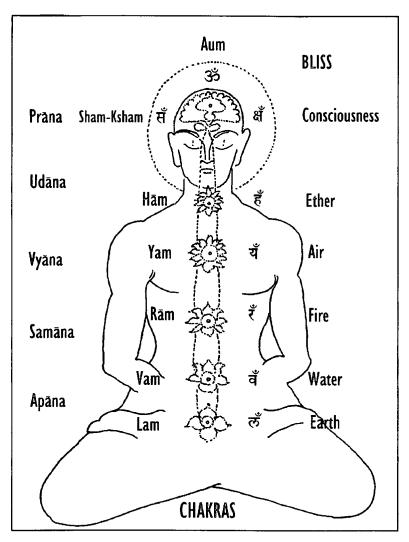
The deities related to the Sun are Râma, Gayatrī Devī and Christ. Shiva is related to the Moon and Monday is a good day to worship Shiva. Mars is connected to Lord Ganesha and, when Mars is activated, Ganesha will cool down Mars energy. Mercury is related to Lord Vithala, Krishna and Vishnu, Jupiter to Lord Dattatrava, Lakshmī and also Lord Balaii. Buddhists worship Buddha. Venus. Friday, is Lakshmī, Sarasvatī, Durgā and Allah, Saturday is Lord Shani and Hanuman. Hanuman is also worshipped to calm down Mars. According to Vedic philosophy, Hanuman is a living entity who is the son of the Wind God and travels with the speed of the wind. He is the dedicated servant of Rama. Hanuman is full of love. He stands for bhakti and service. He protects us from evil energy, such as ghosts and spirits. Chanting the Hanuman Chalisa on Saturday and Tuesday will activate this protective energy. Rahu and Ketu are pleased by worshipping them on Saturday and Tuesday respectively. Fasting from sunrise to sunset is a good discipline, cleansing the body, mind and consciousness. For fasting take fruits or fruit juice, which are sattvic, and don't eat any cooked grains.

In the Hindu religion there are 36,000 deities. The Hindus worship everything as a manifestation of God—trees, flowers, and there is even a special day for cows. They also worship the bull, which is a vehicle of Lord Shiva. They are innocent like a child and innocence is the perfume of life. Knowledge is beautiful but knowledge makes the person rigid, it makes the person logical. Logic is based upon knowledge and reasoning. On the other hand, intelligence is creative. Hence, logic has no intelligence.

#### Chakras in the Nādi

The word *chakra* means wheel and *chakras* are centers of energy in the body related to physical, mental and spiritual energies. If the flow of energy in any of these centers becomes blocked, stress is reflected in the physiology. The sixth level of the pulse also reveals how well each of these *chakras* is functioning. If a spike is present, that *chakra* is working under stress. A healthy *chakra* has no spike.

Return to the same sixth level pulse to find which *chakra* is stressed. Reading this information is slightly different. Gently move the finger and find the location of the spike. The ring finger at the proximal curvature denotes the activity of *mūlādhāra*, the first *chakra*, and at the distal curvature the activity of *svādhisthāna*, the second *chakra*, is



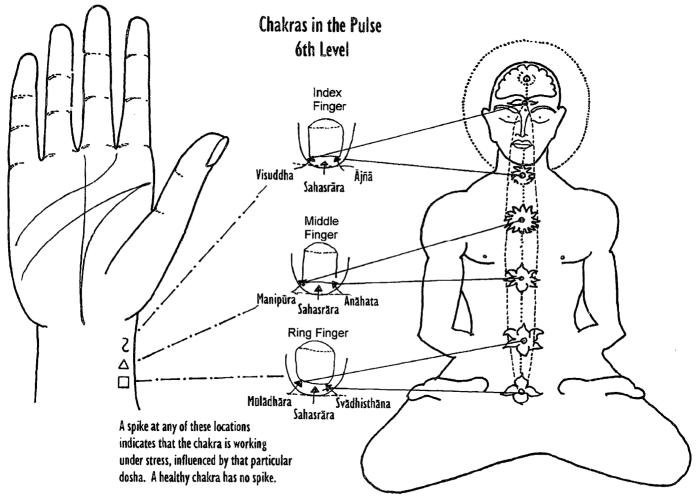
felt. On the middle finger one can detect manipūra and anāhata respectively. On the index finger one will feel visuddha and the sixth chakra, which is ājñā. The central part of each finger denotes the activity of sahasrāra. When a spike is present, that chakra is working under stress and the kundalinī shakti is blocked there. That chakra needs cleansing work. A healthy chakra has no spike because the kundalinī energy moves smoothly. A dynamo that works perfectly creates no noise. However, the dynamo that is cracked creates a loud noise. Hence, the chakra that is working under stress creates a spike. We are ordinary people who are involved with worldly affairs and our chakras

may not be open. What is the spike of an enlightened person? An enlightened person will have a gentle balanced spike at the site of *sahasrāra* under all three fingers.

The  $b\bar{i}ja$  mantra for each chakra is given in the illustration of Chakras in the Pulse. Lam is for  $m\bar{u}l\bar{a}dh\bar{a}ra$ , vam for  $sv\bar{a}dhisth\bar{a}na$ ,  $r\bar{a}m$  for manip $\bar{u}ra$ , yam for an $\bar{a}hata$ ,  $h\bar{a}m$  for visuddha, sham-ksham for  $\bar{a}j\bar{n}\bar{a}$ , so-hum for sahasr $\bar{a}ra$ , and aum for bliss, located about the width of 10 fingers above the physical brain. This point is the junction between the auric field and cosmic consciousness and is called anuch $\bar{a}ra$ , the unspoken soundless sound, the sound of one hand clapping, sound without duality. If the person mentally recites the appropriate mantra 108 times, it helps to release the blockage and open the chakra. The chakra system and chromo-therapy go together. The seven rainbow colors are red, orange, yellow, green, blue, purple, and indigo, and they are also the colors of the chakras, from m $ul\bar{a}dh\bar{a}ra$  to sahasr $\bar{a}ra$  respectively.

A spike at *mūlādhāra* on the proximal curvature of the ring finger may be connected to the reproductive organs testicles, ovaries, cervix and prostate. The person may have sexual debility or low libido. If the spike is on the distal curvature of the ring finger, it is connected to the second *chakra*, *svādhisthāna*—kidney, urethra, bladder and adrenals. The second *chakra* is also connected to the spleen and governs the water element. The third *chakra* is functionally connected to the stomach, pancreas, small intestine, liver and gallbladder. The fourth *chakra* relates to the heart and lungs and the fifth to the vocal cords, thyroid and parathyroid. The sixth is related to the third eye and the pituitary gland and the seventh to the pineal.

With this understanding, now try to read your own and then read the condition of your friend's *chakra* pulse. Again, the right hand in the man and the left hand in the woman should be used to understand the *chakras*. To find this pulse at the sixth level, gently tune your finger to locate the presence of the spike. Try to contact the throb. This information is at the same sixth level as *manas prakruti* and the planetary influences, but fine tuning is different. A spike at *sahasrāra* on the *kapha* finger means the crown *chakra* 

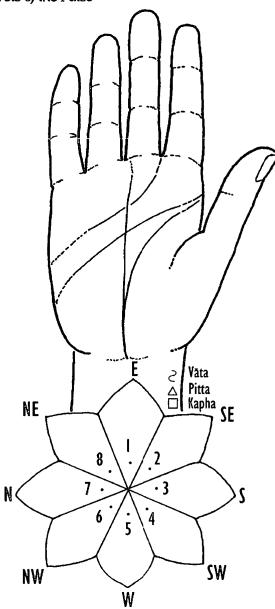


has a *tarpaka kapha* disorder. A spike at *sahasrāra* under the *pitta* finger indicates *sādhaka pitta* is involved. If the spike is under the index finger, *prāna vāta* is involved. An uneven spike at the *sahasrāra* site under all three fingers means the person is mentally disturbed. But if the spikes are equally balanced at this position under all three fingers, the person is enlightened.

#### The Present Flow of Consciousness

Now we will shift our attention to the second level. Just a bit below the superficial pulse on the first level, the spike changes. The second level represents the present flow of consciousness. Although we refer to this present flow of consciousness as *manas vikruti*, it is more appropriately called the present status of the mind. Under each finger visualize the eight-petaled lotus representing the eight directions in the same manner as at the sixth level. This pulse changes approximately every 90 minutes, due to changing thought waves and feelings. It is not permanent, because it is a flow of consciousness connected to the thought wave. At one moment there may be a wave of sadness and depression; at the second moment one may feel happy.

A spike in the east direction (Petal Number 1) represents creative, positive thoughts. A spike in the southeast (Petal Number 2) represents judgmental thoughts, sometimes selfcriticism or perfectionism which is judgmental. Pitta people are often perfectionistic which creates stress in them. A spike in the south (Petal Number 3) indicates depression and low self-esteem. The fourth direction is southwest (Petal Number 4), representing pessimistic thinking. The west direction (Petal Number 5) is attachment and emotional thinking. People are attached to status, relationships and objects. Attachment can be to anything. The northwest direction (Petal Number 6) represents a chattering mind and north (Petal Number 7) indicates thinking of money and success. Northeast (Petal Number 8) is spiritual thought. The mind is calm, quiet and serene. This level may or may not be the same as the manas prakruti at the sixth level. For example, a person may be born with a sattvic manas prak-



Flow of Consciousness and Thought Waves Through the Nādi at the Second Level

- I) Creative, positive thinking
- 2) Judgmental thinking
- 3) Depression, grief, sadness, low self-esteem
- 4) Pessimistic thinking
- 5) Emotional thinking, attachment
- 6) Chattering mind
- 7) Thinking of money, success
- 8) Spiritual thinking

*ruti* but may become predominantly *rajāsic manas vikruti* as he or she reaches adulthood.

Now we will try to read the second level of the pulse. First read your own and then your friend's pulse. Keep the fingers still. For comparison, use each finger separately. Perhaps the  $v\bar{a}ta$  finger may indicate depression but the *pitta* finger may show judgmental thinking and the *kapha* finger may show a spiritual attribute. That which is overpowering will rule your present flow of consciousness. Feel under each finger and then we will learn to interpret. Read the pulse on the right hand for the male and the left hand for the female. This pulse reveals what the person is thinking at the present moment.

Creative thoughts are *sattvic* and judgmental thoughts are *rajāsic*. *Rajāsic* people like to compare. Depressive thoughts are *tamasic*. Grief and sadness can be either *rajāsic* or *tamasic*. Chattering is *rajāsic*, thinking of money is *rajāsic* and spiritual thinking is *sattvic*. These three qualities—*sattva*, *rajas* and *tamas*—are flowing even through the superficial pulse at the second level.

As with the previous pulses in this chapter, the fingers of the person being examined are always visualized as facing east and it is the direction of the spike which determines the number of the petal. This present flow of consciousness changes according to the person's situation, responsibility and events that occur in one's life. The superficial pulse at the second level is connected moment-to-moment to our thought waves, and thought is a biochemical vehicle through which we communicate with the throb of the pulse. If this second level is checked in the morning, afternoon and evening, changes will be noticed.

 $V\bar{a}ta$ , pitta and kapha have different significance at this level of the pulse.  $V\bar{a}ta$ , when being creative and positive, comes like a breeze and goes away. It is a temporary phase. Pitta, when being creative and positive, is a very deep and concentrated state of being. Kapha, when being creative and positive, lasts long because kapha moves slowly. Consider every aspect of the dosha. Pitta is judgmental. Vāta is also judgmental, but the judgmental quality of vāta is not that deep. It will be here for a while and then go away. But pitta people judge and when they judge, they judge.

It is important to pay attention to the breath while examining the subject. Watch the movement of the person's chest. When the person is breathing in, you should be breathing out, as if you are putting your *apāna* in the person's *prāna*. Conversely, you are taking that person's *apāna* 

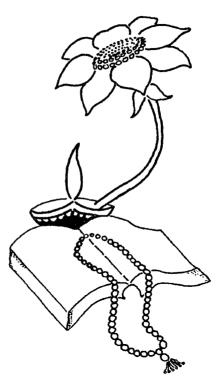
into your *prāna* with your inhalation. However, you should exercise caution with this practice because you may receive the energies of the subject and pick up the person's feelings and emotions. To feel someone's pulse is an energy exchange. There are certain methods to protect oneself. Practice So-Hum meditation and watch the breath. In addition, wearing gemstones and crystals such as amethyst, rose quartz and a rudraksha mala will add protection. One can also practice the meditation of passive awareness during which there is doing without the sense of the doer.

Emotions can enter through the breath. When one unconsciously breathes in, one can take in another person's energy. Even when walking by someone on the street who is throwing out thoughts of anger and fear, these molecules, these atoms of thoughts are inhaled. When arriving home, feelings of sadness come without any apparent reason. We have picked up that person's energy. Conscious breathing and the So-Hum *mantra* are very important. When practicing So-Hum meditation, one does not incorporate other people's energy. One remains alert and tranquil.

There are many ways to improve the sensitivity in the fingers. Rub the fingers with certain medicated oils containing brahmi and vacha, which bring more alertness and sensitive observation. I always do So-Hum meditation when I feel the pulse. With So-Hum, the mind is not interfering, the thoughts and feelings are not interfering and the perception of the pulse becomes clear. Or use any guru-given authentic mantra. A mantra can neutralize the blockage and interference created by one's own thoughts and pulsations. Examining an individual's pulse is meditation. Meditate, feel the pulse, focus attention on the mantra and the pulse will be present under your fingers. In this way the reading will be accurate.

Practically, the sixth level of *manas prakruti* doesn't change unless one becomes enlightened. When one transcends normal consciousness, that person is beyond *manas prakruti*, and to practice meditation is to go beyond *manas prakruti*. Up to this point, pulse reading has been more technical but to realize the subtleties of the pulse needs more sensitive awareness. The concepts presented in this chapter

are complicated and will bring up many questions in the mind of the reader. However, all these questions can be answered by the development of subjective perception.





# *The Effects of Gemstones and Crystals on the Pulse*

Gemstones and crystals can have subtle influences on  $v\bar{a}ta$ , pitta and kapha. The healing energy of these stones can be activated in the individual by wearing them as ornaments such as rings or necklaces or by placing them in water overnight and drinking the water the next day. Gems may be purified in certain ways, such as placing them in salt water for two days. Gems give off as well as draw in energy through their negative and positive vibrations. They activate energy centers in the body and in this way help to develop sensitivity.

The healers in ancient Vedic times studied gemology by observing their subtle effect on the *doshas* and the action on the pulse. As we have seen, there are many pulses in the body—seven levels and three fingers, 21 pulses on the right side and 21 pulses on the left. But for convenience, if we only study the superficial and deep and try to learn the pulses of the organs, we will gain much information. This knowledge is enough for beginning the study of the effect of gems and crystals on the pulse.

Understanding how planets, deities and gemstones are prescribed is important. The gemstone or crystal should touch the skin through a little window in the setting so that the subtle energies of the stone can interact more directly with the energies of the body. Generally, a diamond (Venus) should go on the ring finger, a pearl (Moon) should

go on the little finger, red coral (Mars) on the ring finger, emerald (Mercury) on the little finger and yellow sapphire (Jupiter) on the index finger. Blue sapphire (Saturn) is the only gem to be worn on the middle finger. Gomed (Rahu) can go on the ring finger or little finger and lasnya (Ketu) on the little finger. There is no ring for the thumb, because the thumb represents the soul (*angustha purusha*). In general that which is heating should be set in silver, but there are some exceptions.

The "day" of a gemstone (deity) is considered important for setting the stone and first wearing it. Just as in marriage when two elements come together and yield something new, a gem and its mount yield a new sphere of influence—a ring, a medicine. It is considered auspicious to unite these on the day of the deity to be honored (pacified). Further, donning the ring for the first time on this day is important for the same reason. The vibration of the gem works best along certain pathways of energy ( $n\bar{a}dis$ ). Therefore, gems and their energies are matched with specific  $n\bar{a}dis$ , which affect physiology in known ways.

Some diamonds and other gems carry a curse. Although it is fashionable now to buy antique jewelry, we do not know who previously wore it. The energy of the person remains with the jewelry and needs to be cleared before a new person wears it.

Processed or chemically treated stones may not have the same healing energy. It is best to get authentic, unprocessed, clean stones, without any flaw or crack. Never wear a cracked stone. When buying a stone, use a magnifying glass or a microscope to examine its quality. The size of most of the stones should be three to five carats but a one carat diamond is large enough. The cutting of the gemstone should not be uneven or asymmetrical.

A gemstone or crystal can also be taken internally in the form of a *bhasma* or alchemic ash, specially prepared by Ayurvedic methods, which gives prompt and accurate results. Wearing these substances as rings or necklaces has a subtle effect on the auric field.

#### Ruby (padmanabha mani or manika)

Astrologically, the ruby represents the sun. The ruby is a precious stone, sweet and pungent to the taste, heating, and the post-digestive effect is sweet. The taste is not evident if one licks the ruby, but if the ruby is made into a *bhasma*, the taste and action of that *bhasma* in the body has been observed. The external use of that particular stone, either in the form of a necklace or a ring worn on the ring finger, has a subtle effect on the pulse and the *doshas*. Ruby pacifies  $v\bar{a}ta$  and kapha but may elevate *pitta*. If a *pitta* person puts on a ruby, the pulse may become high, jumping and bounding like a frog. This aggravation can cause hives, rash and acne. Garnet and ruby have the same vibration and garnet is the poor man's ruby.

Ruby is a life-giving stone and gives longevity to  $v\bar{a}ta$  and kapha people. It brings prosperity and kindles *agni* to improve digestion. If a  $v\bar{a}ta$  or kapha person is sick, ruby may help to heal. Ruby calms the  $v\bar{a}ta$  and kapha spikes to normal.

#### Pearl (moti)

Pearl is called *moti*. There is an interesting story about the pearl. Pearls are found in the mother shell because sand enters and creates an irritation causing the oozing of a mucous secretion that eventually covers the sand forming a pearl. But that is an ordinary pearl. On a full moon day during svāti nakshatra (a special star), a white cloud appears when the moon is rising. When that particular cloud starts raining on the ocean, Mother Pearl comes to the surface, opens her mouth and swallows one drop of that water. On the full moon that drop of water from the cloud carries the quality, the nectar, of the moon called moon sweat, and that moon sweat is swallowed by the Mother Pearl. She meditates upon that drop. It takes a minimum of six months and a maximum of one-and-a-half years to transform that drop of water into a pearl. This is a very special pearl, which has a slight bluish-white color.

So pearl is sweet, cooling, and the post-digestive effect is sweet. Pearl is *tridoshic*. It balances *vāta-pitta-kapha*. Astrologically pearl is the symbol of the moon. In Ayurveda

pearl *bhasma* is used for gastritis, gastric ulcer, peptic ulcer and sexual debility. Used externally, it is effective when any of the three *doshas* is high. Pearl is good for everyone, because it brings mental peace and tranquillity. Pearl brings a high *pitta* spike back to normal. For those with *pitta* dominant *dosha*, pearl should be set in silver. For *kapha* and  $v\bar{a}ta$ *doshas*, gold is the preferred setting. It should be worn on the little or, in some special conditions, on the index finger. Consult your Vedic astrologer.

#### Gomed (tapomani)

Gomed is sour to the taste, heating, and the post-digestive effect is pungent. It pacifies  $v\bar{a}ta$  but stimulates *pitta* and balances *kapha*. It has direct action on *rakta dhātu* and *māmsa dhātu*. Gomed improves the digestion and strengthens the solar plexus and spleen. Whenever the spleen pulse is feeble, use gomed. When a person has muscle fatigue, gomed can be quite useful. It is helpful in attention deficit disorder. It should be worn on the ring finger and be set in gold.

### Yellow Sapphire (pushkarāja)

Pushkarāja is sweet, cooling, and the post-digestive effect is sweet. It calms vāta and pitta but may slightly build kapka. Pushkarāja represents Jupiter and brings groundedness and stability. When a person has a vāta disorder or a pitta disorder with ungroundedness and instability, a topaz or yellow sapphire in a golden setting on the right index finger helps the person become more stable. When meda and majjā dhātu pulses are prominent, pushkarāja brings balance. Pushkarāja should always go with gold. From the Jyotish point of view, it can be put in copper or silver to calm down the negative effect of Mars or Moon.

In addition, when a person has atrial flutter with fibrillation, *pushkarāja* is beneficial. It strengthens the heart and also builds kidney and lung energy. It should always be worn on the index finger, which is the finger of Guru, Jupiter. Yellow sapphire is more expensive than topaz, which is the poor man's sapphire.

#### Red Coral (pravāla)

Red coral is called *pravāla*. It is sweet, cooling, and the post-digestive effect is sweet. It is *tridoshic*. Coral *bhasma* cools down *pitta*. It is effectively used when the pulse shows low liver, spleen and pericardial energy. Coral gives energy to the liver, which is representative of Mars, so coral protects from Mars energy.

All planets are in the sky, even in the daytime when their light cannot be seen because of the brightness of sunlight. But sunlight carries the light particles coming from Mars, Jupiter, Saturn, Mercury and Venus. Astrologically, an affliction of Mars can produce liver and *pitta* disorders. Wearing a red coral necklace or a ring of red coral set in copper and worn on the ring finger will protect the liver, spleen and pericardium. Some people do not tolerate copper. In that case, silver or white gold is equally good. In Ayurveda coral *bhasma* is used internally to heal gastric ulcer and cholecystitis.

#### Diamond (vajra)

Vajra is a variety of diamond found naturally in a coal mine and is quite difficult to break. Only a diamond can break a diamond. This vajra is pungent and astringent with a pungent post-digestive effect. Vajra calms vāta, stimulates pitta and pacifies kapha. A vajra diamond not only prevents premature aging but also enhances the span of life and strengthens immunity. In addition, a vajra diamond stimulates sex, shukra, because diamond represents Venus and Venus governs the reproductive system. Art, music, romance and sex all go together with this stone. Vajra should be set in gold and can be worn as a necklace or as a ring on the ring finger.

#### Blue Sapphire (nilam)

Blue sapphire, a precious stone, is called  $n\bar{l}am$ . It is pungent, hot, its post-digestive effect is pungent and it represents Saturn. It calms  $v\bar{a}ta$ , may stimulate *pitta*, and calms *kapha*. When Saturn is active in a person's horoscope, the musculoskeletal system is affected. Blue sapphire acts on  $m\bar{a}msa \ dh\bar{a}tu$ , muscle tissue, and *asthi dh\bar{a}tu*, bone tissue. It prevents emaciation and protects from affliction of Saturn.

However, one will still receive the benefits of Saturn while wearing this stone. Saturn, a deity of earth and iron, is a very spiritual planet ( $yoga k\bar{a}raka$ ) and brings enlightenment. The vehicle of Saturn is *hamsa*, the swan, which is also the vehicle of Sarasvatī and Brahma, the Creator.

Blue sapphire is the only stone worn on the right middle finger and it is better to place it in a silver setting. It helps to build up muscles and the skeletal system and heals arthritic changes. When the pulse is feeble and  $v\bar{a}ta$  is high, use blue sapphire. Never wear a diamond and blue sapphire together. They are enemies and will create disharmony.

#### Lapis Lazuli (indranīla)

Lapis lazuli is bitter, cooling and the post-digestive effect is sweet. It calms *vāta* and *pitta* and may build *kapha*. It regulates bile and is a blood cleanser. Lapis lazuli is good for skin diseases and bleeding disorders. Use *indranīla* when a person has anxiety, fear and weakness in the heart. It should be set in gold and can be worn on the little finger.

### Emerald (panna)

Emerald is sweet, cooling, and the post-digestive effect is sweet. It calms vāta and pitta but may stimulate kapha. This stone is cooling but, because of its prabhāva, it calms the nervous system and improves the power of speech. It is nutritive, digestive, and brings prosperity and spiritual awakening. Emerald is worn on the little finger and should be set in gold.

#### Cat's Eye (vaidūrya, lasnya)

Lasnya is pungent, heating and the post-digestive effect is pungent. It calms  $v\bar{a}ta$ , may slightly stimulate *pitta* and pacifies *kapha*. This stone is good for allergies, repeated cold and congestion, or allergic asthma. It aids in healing kidney dysfunction. It enhances awareness so a person doesn't get caught in emotions. People working in psychological healing should wear *lasnya* in a gold setting on the little or ring finger to protect them from negative vibrations. This stone also protects from evil spirits.

#### Sūryakānta

 $S\bar{u}ryak\bar{a}nta$  is a very special stone. It is pink in color and looks like rose quartz. If held in the sunlight, it oozes water and starts sweating. This stone acts on māmsa and majjā dhātus. It is sweet, cooling, and the post-digestive effect is sweet. It pacifies vāta, may stimulate pitta and calms kapha. It also improves memory. When a person has a tendency toward seizures and poor memory, sūryakānta helps. It should be set in gold and worn on the ring finger.

#### Quartz Crystals (sphatika)

Quartz crystals are pungent and sweet, cooling and the post-digestive effect is sweet. They calm  $v\bar{a}ta$ . Because of the pungent taste, some *pitta* people do not tolerate quartz crystals, but the sweet and cooling *vipāka* stimulates *kapha*. Quartz crystals attract radioactive energy. They are good for fistula, prickly heat, and they improve the quality of perception. They also enhance intuition. Quartz crystals can be set in either silver or gold and worn as a necklace or as a ring on the ring finger. When the pericardial pulse is feeble, quartz crystals may help to strengthen that pulse.

#### Onyx (tribhuja, harita pita mani)

Onyx is pungent, heating and the post-digestive effect is pungent. It calms  $v\bar{a}ta$ , may stimulate *pitta*, and calms *kapha*. It is good for old age, debilitating disorders and neurological dysfunction. Onyx works on *rakta*, *māmsa* and *majjā dhātus*. It induces quiet sleep and improves the power of sleep. It is good for memory, positive thinking, *tarpaka kapha* and is a good gem for lethargy. Onyx makes life peaceful, happy and enhances love in relationship. If one wears onyx, an evil spirit will not come near. This stone should be set in silver and worn on the ring finger. Astrologically, if the Sun sign is in Sagittarius or Gemini, one should not wear this stone.

#### Bloodstone (lohita, jyotirāja)

Bloodstone is sour and pungent, heating and the postdigestive effect is pungent. It is warming and is a good blood cleanser. It stimulates *pitta*, calms  $v\bar{a}ta$  and cools *kapha*. It gives energy, warmth, improves circulation, and

builds liver and gallbladder energy. Bloodstone can be set in either silver or copper and should be worn on the little finger.

## Jade (nephrite, yashava, haritamani, bhisma pashan)

Jade is sour and pungent, slightly heating, and the  $vip\bar{a}ka$  is pungent. It calms  $v\bar{a}ta$ , stimulates *pitta* and calms *kapha*. This stone strengthens kidney energy and is reputed to bestow success upon its wearer. If the kidney pulse is very low and the person has a tendency to form kidney stones, jade is good to protect the kidney from various maladies. This stone is also beneficial to longevity and the power of speech. It prevents cataracts and abdominal pain. Jade provides protection from black magic. Jade should be set in silver and worn on the little finger.

#### Amethyst (nīla sphatika)

Amethyst can be purple, pink or indigo in color. It is sweet, cooling and its post-digestive effect is sweet. Though it is *tridoshic*, it can stimulate  $v\bar{a}ta$ . Amethyst is a stone for the crown *chakra* and is good for mental clarity. It acts on *majjā dhātu*. Amethyst is best set in gold to bring prosperity. Some stones have a darker color which gives them a sapphire energy. A person with neuromuscular weakness can be helped by wearing amethyst and by putting amethyst crystals at the four corners of the bed to protect the auric field. Amethyst will provide protection from electromagnetic energy and radiation and will protect the four corners of one's house from negative energy.

#### Opal (sāgararāja, varuna)

Opal is a semi-precious with sweet taste. It is cooling with a sweet post-digestive effect. It stimulates  $v\bar{a}ta$  and kapha and calms *pitta*. Opal represents the plant Neptune. It has black, white, bluish or gentle green shades of color. It is soft and brittle. Opal acts on *majjā* and *shukra dhātus* and increases the strength of these *dhātu* pulses. It aids in improving vision and relieves fever. By its *prabhāva* it enhances spiritual feelings, *bhakti* devotion and unfolds intuition. When this gem looks bright, something "good" will happen. If the stone looks dull and shadowed, something unpleasant will

happen in the near future. Opal is good for people with Pisces as a rising sign. When the planet Neptune is in the third, fourth, sixth, eighth, tenth or twelfth house, this gem is quite beneficial. It should be set in gold or silver and worn on the ring finger.

#### Alexandria (hemaratna, harshal)

Alexandria changes its color due to changes in the position of the sun. In the morning it looks greenish purple, during midday it appears reddish indigo and in the evening it shows a greenish red color. Because of this quality of changing color, alexandria is considered to be a precious gem. It is sweet and sour to the taste, cooling, with sweet post-digestive effect. It stimulates  $v\bar{a}ta$  and kapha and pacifies *pitta*. Alexandria brings tranquillity to the mind and affects the nervous system and the *majjā* dhātu pulse. It enhances memory and is also beneficial for a person with grand mal epilepsy. This gem brings good luck. It should be set in gold and worn on the ring finger.

#### Aquamarine (harita nīla mani)

The color of aquamarine is sky blue, greenish blue, pink, yellowish and it looks like sea water. It is also called Sea Green. It is sweet and astringent, cooling, and the postdigestive effect is sweet. Aquamarine acts on *rakta*, *māmsa* and *shukra dhātus* and it strengthens these *dhātu* pulses. It eliminates dullness of the mind and brings mental happiness and intelligence. It promotes the power of speech and memory. It is good for married couples to wear this stone to enhance love in their relationship. Aquamarine is a substitute for emerald. It should be set in silver and worn on the little finger.



The faith element connected with wearing these gemstones is very important. Faith moves the mountain. If one has faith and trust in the person giving the stone, it will work as a healing factor. So the effect of these gems does have a connection to faith. Modern medicine considers faith a placebo effect but Ayurveda says that faith is more than a placebo. It has a direct connection with spirit, with consciousness and with innermost awareness.

CEM	ACTION	PLANET
<b>Ruby</b> (padmanabha mani or manika)	Sweet and pungent, heating, sweet. Regulates action of $v\bar{a}ta$ and $kapha$ but may stimulate <i>pitta</i> . Promotes long life. Good for poor circulation, anemia and spleen dysfunctions.	Sun
Pearl (moti)	Sweet, cooling, sweet. <i>Tridoshic</i> . Calms the mind. Nutri- tious and strengthening for rasa, māmsa and shukra dhātus.	Moon
Gomed (tapomani)	Sour, heating, pungent. Pacifies vāta and kapha, stimulates <i>pitta</i> . Improves digestion and circulation. Strengthens solar plexus and spleen. Helps lymphatic congestion and edema. Good for attention deficit disorder.	Rahu
Yellow Sapphire (pushkarāja)	Sweet, cooling, sweet. Regulates vāta, stimulates kapha, calms pitta. Brings stability, groundedness and wisdom.	Jupiter
Red Coral (pravāla)	Sweet, cooling, sweet. Strength giving. Regulates kapha and <i>pitta</i> , neutral for vāta. Improves color complexion and imparts gracefulness to the person.	Mars
Diamond (vajra)	Pungent and astringent, heating, pungent. Brings prosperity. Strengthens <i>shukra</i> . Improves romantic qualities, digestion, and slows aging. <i>Tridoshic</i> .	Venus
Blue Sapphire (nīlam)	Pungent, heating, pungent. Regulates $v\bar{a}ta$ , stimulates <i>pitta</i> and <i>kapha</i> . Gives energy to the nerves, bones, joints and muscles.	Saturn
Lapis Lazuli (indranīla)	Bitter, cooling, sweet. Calms vāta and pitta, stimulates kapha. Good for liver, gallbladder, regulates bile. Good for skin disease.	Saturn- like energy
Emerald (panna)	Sweet, cooling, sweet. Calms <i>vāta</i> and <i>pitta</i> , may stimulate <i>kapha</i> . Removes nervousness, improves writing and lecturing skill, gives intelligence.	Mercury
Cat's Eye (vaidūrya, lasnya)	Pungent, heating, pungent. Calms vāta and kapha, stimulates <i>pitta</i> . Produces energy, cures cold, renal disorder. Good for diabetes and arthritis.	Ketu

CEM	ACTION	PLANET
Sūryakānta	Sweet, cooling, sweet. Pacifies vāta and kapha, may stimu- late pitta. Stops bleeding, improves memory and helps sei- zures.	Sun-like energy
Quartz Crystals (sphatika)	Pungent and sweet, cooling, sweet. Calms <i>vāta</i> , stimulates <i>pitta</i> and <i>kapha</i> . Good for gas, fistula. Improves communication and enhances intuition.	Venus-like energy
Onyx (tribhuja, harita pita mani)	Pungent, heating, pungent. Calms vāta and kapha, may stim- ulate pitta. Good for epilepsy, Parkinson's, schizophrenia. Improves love and positive thinking.	Sun- and Jupiter- like energy
Bloodstone (lohita)	Sour and pungent, heating, pungent. Stimulates $v\bar{a}ta$ , calms <i>pitta</i> , cools <i>kapha</i> . Good for anemia, improves <i>agni</i> , heals stomach ulcer, improves memory. Gives energy, warmth, improves circulation and builds liver and gallbladder energy.	Mars- and Sun-like energy
<b>Jade</b> (nephrite, yashava)	Sour and pungent, slightly heating, pungent. Calms vāta and kapha, stimulates pitta. Good for prostate and kidney disease.	
Amethyst (nīla sphatika)	Sweet, cooling, sweet. Tridoshic. For mental clarity. Acts on majjā dhātu. Helps neuromuscular weakness.	Saturn- like energy
<b>Opal</b> (sāgararāja, varuna)	Sweet, cooling, sweet. Stimulates vāta and kapha, calms pitta. Improves vision and relieves fever. Enhances spiritual feelings and unfolds intuition. Good for migraine headache.	Neptune
Alexandria (hemaratna, harshal)	Sweet and sour, cooling, sweet. Stimulates vāta and kapha, pacifies pitta. Brings tranquility and enhances memory.	
Aquamarine (harita nīla mani)	Sweet and astringent, cooling, sweet. <i>Tridoshic</i> . Eliminates dullness of mind and brings mental happiness and intelligence. Enhances love in relationship.	Venus-like energy



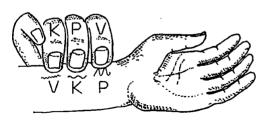


## Other Aspects of the Pulse

#### Pulse Conditions in Various Diseases

We will now turn our attention to pulse conditions in various diseases.

Unmāda Pulse (Mania or Psychosis). Check at all lev-



els for the general feeling of the pulse as a whole. If there is a strong *pitta* spike under the index finger, slow, deep, wavy spikes of kapha under the middle finger and fast, feeble vāta pulsations under the ring finger as shown in the diagram, the pulse reveals unmāda (psychosis) or a form of mania. This pulse is felt at all levels.

Bhutonmāda (Psychosis Due to Influence of an Evil Spirit). Characteristics of the pulse are similar to those felt in the unmāda pulse, i.e., a pitta pulse under the index finger, a kapha pulse under the middle finger and a vāta pulse beneath the ring finger. However, the pulse will be imbedded deep within the flesh. This condition is indicative of a form of mania due to possession.

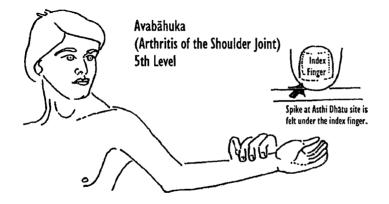
In other cases, the person has a staring look and a shadowed personality and the pulse is small and thready under all three fingers, vāta-pitta-kapha. It is cold to the touch and shows extreme vāta which is felt under all three fingers. This kind of pulse is present when a person is influenced by an evil spirit and the pulse is shadowed by the spirit. Spirit is ether, like a breeze, and the person's aura is clouded. In this condition there is a total change in personality and behavior from one's normal behavior. When the person's appearance suggests *pitta* as predominant in the *prakruti* but the pulse shows complete  $v\bar{a}ta$ , that indicates possession. We can't prove it objectively but we can see that the person's behavior pattern is quite different.

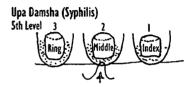
This pulse becomes prominent during the full moon and new moon when conditions such as schizophrenia, double personality and psychosis are more active. We are not talking about a particular level here; this kind of pulse is beyond level and greater pressure causes the pulse to disappear. We have systematically studied each level, but now we are discussing unusual pulses that do not fit into the normal course. This kind of pulse can be treated by giving management to *vāta dosha*.

Upa Damsha (Syphilis—Fifth Level). If the pulse under the middle finger at the *shukra* or *ārtava* site on the fifth level has high tension, curves and then slips off the finger, it denotes syphilis.

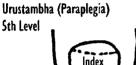
Granthi Rupā Nādi (Syphilitic Arteriosclerosis—Fifth Level). The pulse in this condition feels knotted, thickened and jerky, receding completely between the beats. This pulse, felt at the fifth level, is due to syphilitic arteriosclerosis.

Avabāhuka (Arthritis of the Shoulder Joint—Fifth Level). In cases of acute arthritis of the shoulder joint, the pulse under the index finger at the *asthi* site on the fifth level becomes full and bounding. This pulse can be felt on the same side of the body as the arthritic lesion.





Granthi Rupā Nādi (Syphilitic Arteriosclerosis) Sth Level





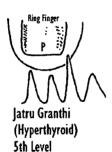
Kanda (Prolapsed Uterus) 5th Level

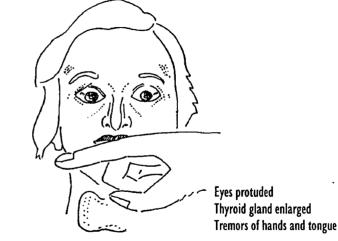


Urustambha (Paraplegia—Fifth Level). In cases of paraplegia the pulse under the index finger on both sides of the body is fast, quick and feeble at the majjā  $dh\bar{a}tu$  site on the fifth level.

Kanda (Prolapsed Uterus—Fifth Level). If the pulse under the ring finger at the  $\bar{a}rtava$  site at the fifth level on both sides of the body is delicate, feeble and slow, it indicates a prolapsed uterus.

Ūrdhva Jatru Granthi (Hyperthyroid—Fifth Level). Hyperthyroidism manifests in the pulse as a strong *pitta* spike at the distal curvature of the ring finger of the *rakta*  $dh\bar{a}tu$  pulse at the fifth level. The pulse has an abrupt strong







Pitta spike at Rasa Dhātu

spike and is quite fast. There are tremors of the hands and tongue. The eyes are protruded and the thyroid gland is enlarged.

Granthi Roga (Lymphadenitis—Fifth Level). A *pitta* spike at the *rasa dhātu* site under the ring finger at the fifth level indicates lymphadenitis, inflammation of the lymph nodes. The pulse is full, slippery and stout.

Vepathu (Parkinson's Disease—Fifth Level). In cases of Parkinson's disease the majjā dhātu pulse on the fifth level is hard, sclerosed and elongated, with a slow and low rise and fall. This pulse is slender and shows  $v\bar{a}ta$  characteristics. It is best felt under the index finger. This condition is called vepathu or kampa vāta. The patient has a typical masked-face appearance as shown in the diagram. Note the



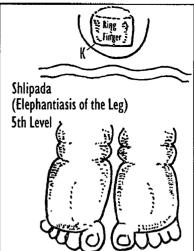
fixed stare, dribbling saliva and angular stomatitis. The body becomes stiff and there are pill rolling movements to the fingers.

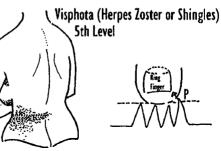
Shlīpada (Elephantiasis of the Leg—Fifth Level). In *shlīpada*, elephantiasis of the leg, the pulse under the ring finger on both sides of the client at the fifth level *rasa dhātu* site shows a *kapha* spike. The pulse is slow, dull, full and depressed and is curved. There is solid, thick edema in both legs and the legs look like the legs of an elephant, as shown in the diagram.

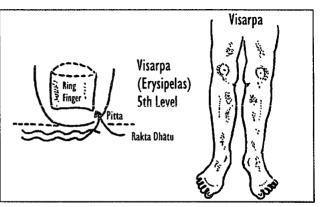
Visphota (Herpes Zoster or Shingles—Fifth Level). Herpes zoster is indicated by a strong *pitta* spike at the *rakta dhātu* site under the ring finger on the fifth level. Excess *pitta* in the blood can create hemorrhagic spots at the site of the breakout of shingles on the skin.

Visarpa (Erysipelas-Fifth Level). Erysipelas is

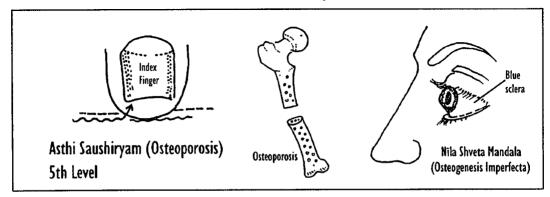
a contagious disease of the skin and subcutaneous tissues due to infection with *Streptococcus pyogenes*, with redness and swelling of affected areas and sometimes with vesicular lesions. The pulse under the ring finger at the *rakta dhātu* site of the fifth level is distressed, weak and slender with frequent jerks and moves slowly like a snake chasing a frog, i.e., vāta pushing *pitta*.



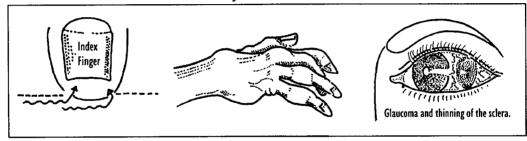




Asthi Saushirvam (Osteoporosis—Fifth Level). A fast. thin, feeble pulse with an abrupt spike moving like a cobra under the index finger at the asthi dhātu site on the fifth level is a sign of thin bones or osteoporosis. This condition manifests most frequently in old age and in post-menopausal women. A similar condition with a similar pulse is sometimes found in children at about the age of seven. In this condition there is *nila shveta mandala* (blue sclera) which is called osteogenesis imperfecta. Congenital vāta in the asthi dhātu can cause this condition which manifests as multiple fractures. As noted in the diagram, it creates a blue color to the sclera of the eve.



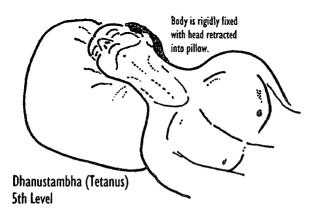
Āma Vāta (Rheumatoid Arthritis—Fifth Level). Rheumatoid arthritis creates muscle wasting, nodules and flexion deformities with joint swelling. A slender, heavy, abrupt cobra pulse is felt both at the asthi and majjā sites under the index finger at the fifth level dhātu pulse. Note the diagram of the eve showing recurrent scleritis with thinning of the sclera and glaucoma. A person with *āma vāta* usually has a history of rheumatic fever. This condition is caused by an autoimmune problem leading to *āma* in the *majjā dhātu*. If (Rheumatoid Arthritis) the same pulse is felt only under the asthi dhātu site, that condition is called osteoarthritis (sandhi vāta) and is due to autoimmune dysfunction of asthi dhātu.

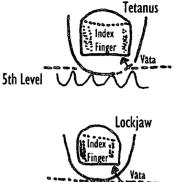


Āma Vāta

**5th Level** 

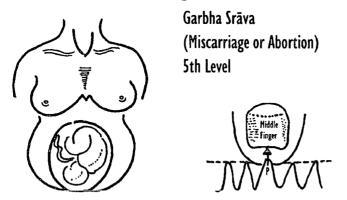
Dhanustambha or Hanustambha (Tetanus or Lockjaw—Fifth Level). In *dhanustambha* or tetanus the deepseated fifth level pulse forcibly goes up and down and the spike is felt at the *majjā dhātu* site. In cases of *dhanustambha* the body is rigidly fixed like a bow, as shown in the diagram. The retracted head is buried in the pillow, showing signs of meningeal irritation. At the same level in cases of *hanustambha* or lockjaw, the pulse becomes forceful at one moment and imperceptible at the next. The spike is felt at the site of *majjā dhātu* under the index finger.





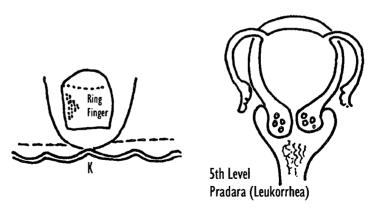
mmmmm

Garbha Srāva (Miscarriage or Abortion—Fifth Level). In cases of miscarriage or abortion the pulse under the middle finger shows a high *pitta* spike at the fifth level  $\bar{a}rtava$  $dh\bar{a}tu$  site as shown in the diagram.

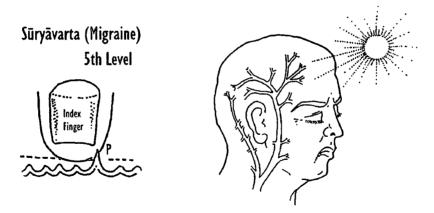


**Pradara** (Leukorrhea—Fifth Level). The *pradara* pulse is slow and wavy and is best felt under the ring finger at the fifth level  $\bar{a}rtava \ dh\bar{a}tu$  site as shown in the diagram. This pulse has the deep and slow characteristics of *kapha*.

Other Aspects of the Pulse

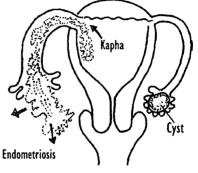


Süryāvarta (Migraine—Fifth Level). The majjā dhātu site on the fifth level shows a strong jumping pitta spike. Due to the heat created by pitta, the blood vessels expand and press the nerves, causing pain.

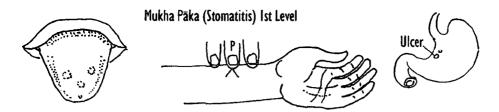


Soma Roga (Endometriosis—Fifth Level). At the fifth level the  $\bar{a}rtava \ dh\bar{a}tu$  pulse shows a deep, slow, wavy kapha pulse under the ring finger. This pulse denotes a kapha disorder of  $\bar{a}rtava \ vaha \ srotas$ . The endometrial tissue, due to excess kapha, grows outside the uterus into the abdominal and pelvic cavities.

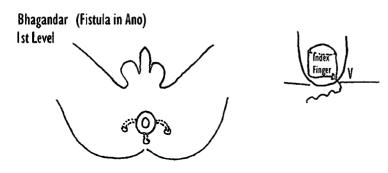
Soma Roga (Endometriosis) 5th Level



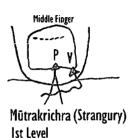
Mukha Påka (Stomatitis or Ulcer—First Level). When the superficial pulse at the stomach site under the middle finger on the subject's left hand shows a strong *pitta* spike that moves quickly with a snapping force, it indicates either a stomach ulcer, stomatitis, inflammation of the oral cavity or ulcers on the tongue. When there is food poisoning, the stomach pulse shows high *pitta* but the pulse disappears if pressed. In this case the stomach pulse is feeble and the patient has other symptoms such as nausea and vomiting.



Bhagandar (Fistula in Ano—First Level). In cases of fistula in ano, the superficial pulse under the index finger on the right side of the subject shows a  $v\bar{a}ta$  spike. The pulse is feeble, slippery and depressed. A slow pulse at this location indicates severe constipation.



**Mūtrakrichra** (Strangury—First Level). The bladder pulse is the superficial pulse under the ring finger on the left side of the subject. A  $v\bar{a}ta$  spike indicates retention of urine, because  $ap\bar{a}na v\bar{a}yu$  doesn't open the sphincter muscle of the urethra. A *pitta* spike suggests excess *pitta* with acidic pH and that person may get cystitis or inflammatory conditions of the bladder. If a *kapha* spike is present, the person has albuminuria, diabetes or calcium phosphate stones. If the stone is an oxalate stone (*pitta* stone), it will hurt the bladder and cause bleeding and will create a *pitta* spike on

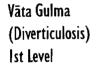


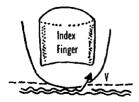
the pulse. Interstitial cystitis will show as both kapha and pitta spikes.

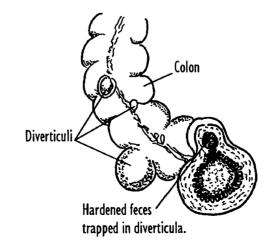
Grahani (Chronic Diarrhea—First Level). If the superficial pulse under the index finger on the left side of the subject becomes soft, feeble and infrequent, and the spike feels blunt at the *pitta* site, it denotes *grahani*, malabsorption syndrome in the small intestine.

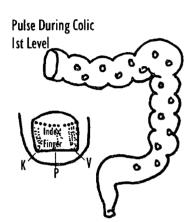
Pakvāshaya Shūla (Colic—First Level). The superficial pulse at the first level under the index finger on the right side of the subject at the small intestine site indicates the colon. The pulse during pain due to colic becomes feeble and fast when the spike is at the  $v\bar{a}ta$  site. The spike is quick, crooked and cold to the touch if it is  $v\bar{a}ta$  colic due to spasm. If the spike is at the *pitta* site and the pulse is sharp, heaving and jerky, it is *pitta* pain due to acute infection or inflammation and may manifest as diarrhea, dysentery or irritable bowel syndrome. On the other hand, if the spike is at the *kapha* site and the pulse is slow, full, wavy and heavy, it denotes *āmashula* or *kapha* pain due to congestion, amoebiasis, giardiosis or worms. If the colon pulse simultaneously shows  $v\bar{a}ta$ , *pitta* and *kapha*, that may indicate malignant changes, a *tridoshic* disorder.

Vāta Gulma (Diverticulosis—First Level). The colon pulse at the superficial level on the right side of the subject shows a vāta spike in diverticulosis. Apāna vāyu creates a cul-de-sac in the colon causing hardened feces to be trapped.





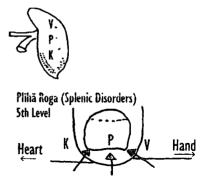


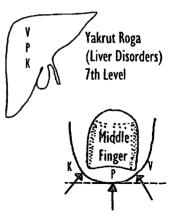


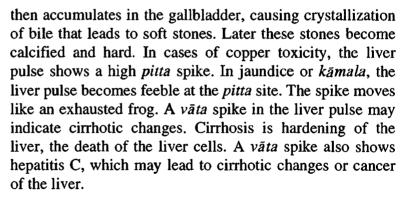
Plīhā Roga (Splenic Disorders-Seventh Level). The spleen pulse is felt under the middle finger on the left side of the subject at the deep level. If that pulse becomes feeble, thready and cold to the touch, and gives a vāta spike on the distal curvature, it indicates that the spleen (the root of rakta vaha srotas) is affected by vāta dosha. A vāta spike also shows low immunity, because the spleen plays an important role in the immune system. In cases of splenitis, the pulse will have a *pitta* spike in the middle of the curvature. A person having chronic fatigue syndrome may have *pitta* in the liver and spleen. In the case of splenomegaly, when the spleen is enlarged, there will be a kapha spike on the proximal curvature. Causes of enlarged spleen include infection. malaria and leukemia. Splenitis, a rañjaka pitta dysfunction, can also enlarge the spleen because of inflammation. The quality of the spike is very important in determining the nature of the disease.

Yakrut Roga (Liver Disorders—Seventh Level). The liver pulse is found at the seventh level under the middle finger on the subject's right side. A *kapha* spike shows enlargement of the liver, which is called hepatomegaly. Excess *kapha* in the liver is responsible for fatty degenerative changes in the liver and the fatty liver has rounded borders.

In the case of hepatitis A or B, the liver pulse will be feeble, but the spike will show pitta, because hepatitis is a rañjaka pitta disorder. When gallstones are present, the spike may be at the kapha site or at the pitta site, because both are involved in this condition. Sometimes just by feeling the pulse one can tell about the presence of gallstones. which can be proven through x-ray. X-ray can show calcified stones, but if the stones are soft, the x-ray will pass through them and will not cast a shadow on the film. However, soft stones can be detected with ultrasound. Sometimes the spike will come in between *pitta* and *kapha*, indicating hepatic congestion. Though stones are formed in the gallbladder and the changes can be felt in the gallbladder superficial pulse, the deep liver pulse also shows doshic changes. Even in cholecystitis, which is inflammation of the gallbladder, the pathology of the stone begins in the liver. The bile becomes thick and oily due to excess kapha which







Halimaka (Malignant Jaundice or Hepatitis C—Seventh Level). The pulse in *halimaka* is felt under the middle finger at the deep level on the right hand side of the subject. The *pitta* spike moves toward the *kapha* site as shown in the diagram and the pulse is low, tremulous and deep-seated. Chronic hepatitis C may manifest as malignant jaundice.

Madhumeha (Glycosuria—Diabetes Incipedus—Seventh Level). The deep pulse under the middle finger on the left side of the subject corresponds to both the spleen and pancreas and reveals the condition of the blood. If the pulse becomes thin like a hair and almost disappears with very little pressure, it indicates glycosuria. The spike is  $v\bar{a}ta$  in nature.

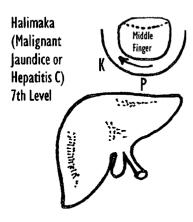
Asthi Bhagna (Bone Fracture—All Levels). A pulse under all three fingers that is quick, feeble and cold to the touch at all levels shows fracture of the shaft of a bone.

Shīta Pūrva Jvara (Fever with Rigor or Chills—All Levels). The pulse at all levels beats with force. It is fast and does not disappear after pressure is released. This pulse shows malarial fever.

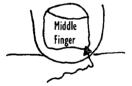
Kāsa (Cough—Seventh Level). If the deep pulse under the index finger on the right side at the site of the lung pulse on the seventh level becomes feeble, slow and beats at the *kapha* site, it denotes cough due to bronchial congestion.

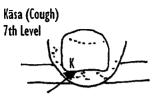
Hrid Roga (Heart Disease in General—Seventh Level). The deep pulse under the index finger at the seventh level on the left side of the subject indicates the heart pulse and shows the following conditions of the heart:

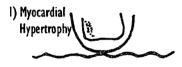
1. The pulse is feeble and beats like the swimming of a swan, indicating excess *avalambaka kapha* in the heart, myocardial hypertrophy.



Madhumeha (Glycosuria-Diabetes Incipedus) 7th Level





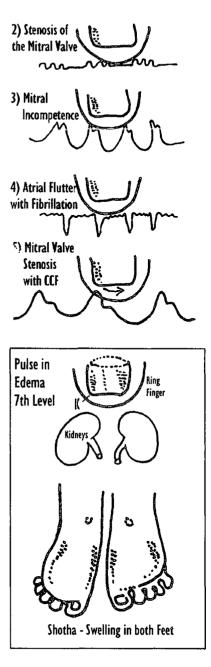


- 2. The pulse is feeble and beats like the hopping of a partridge, indicating congenital mitral valve prolapse.
- 3. The pulse is frequent and moves like a collapsing plateau or mountain, indicating mitral incompetence.
- 4. The pulse is irregularly irregular with cardiac arrhythmia and multiple extra systole, indicating atrial flutter with fibrillation.
- 5. The *kapha* spike moves toward the *pitta* position which denotes *kapha* blocking *pitta*. The pulse feels like the mountain or crescendo pulse, indicating stenosis of the mitral valve with congestive cardiac failure, CCF.

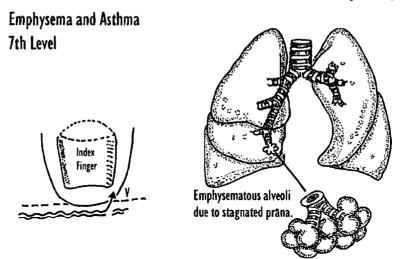
Shotha (Pulse in Edema—Seventh Level). If both feet are swollen with edema, the kidney pulse at the seventh level under the ring finger on the left side of the client shows a *kapha* spike at the *kapha* site. The nature of the pulse is full, broad, wavy and slow and stops at times like a pillar. This condition indicates *shotha*, swelling on both feet. Due to accumulation of water under the skin, initially one may not be able to feel the pulse. But this pulse can be felt by repeated practice when water is displaced by the pressure of the finger.

Tamaka Svāsa (Emphysema and Asthma—Seventh Level). Emphysema is a chronic  $v\bar{a}ta$  disorder in which the alveoli, the tiny air sacs in the lungs, become overinflated with the trapped air of  $pr\bar{a}na$ . The lung pulse at the seventh level is feeble and a  $v\bar{a}ta$  spike is felt in the deep pulse under the index finger on the right side of the subject.

There are three types of asthma— $v\bar{a}ta$ , pitta and kapha. In  $v\bar{a}ta$  asthma there is dry wheezing, a pollen allergy, or spasm to the bronchial tree. Pitta asthma manifests as asthmatic bronchitis. Kapha asthma is more allergy oriented, a descending infection from the nose leading to cold, cough and wheezing. A kapha spike also shows pneumonia, bronchiectesis or pulmonary congestion, which is dilation of the bronchi with accumulated mucus.



Other Aspects of the Pulse



Rāja Yakshmā (Pulmonary Tuberculosis or Consumption—Seventh Level). If the lung pulse under the index finger at the deep level at the  $v\bar{a}ta$  site on the right side of the subject feels jerky, feeble and slow, it indicates low  $pr\bar{a}na$ in the lungs. If the patient has pulmonary tuberculosis, the lung pulse shows *kapha* at one moment, *pitta* at the second moment, and then  $v\bar{a}ta$ , which means three *doshas* are entering the lungs. With *tridoshic* involvement the person may develop bronchogenic carcinoma. In tuberculosis there is low grade fever, evening rise of temperature, and nocturnal perspiration with extremely low *ojas*. These signs are absent in carcinoma. In this way one can distinguish between the two disorders and come to a conclusion about the assessment.

So pulse in various disease conditions is important. If one learns conditions of the pulse in specific disorders, the information may help to arrive at proper diagnosis.

#### The Pulse in Prognosis

The ancient *sūtras* contain knowledge about using the pulse in prognosis to gain information about what will happen to the patient. Some of these *sūtras* even reveal information about the pulse showing how long the person will live and how much chance of recovery he or she has. At this point we will switch our attention to using the pulse in prognosis.

First, we will consider pulse conditions with favorable prognosis. If the radial pulse at all levels beats for 30 beats in its own place with regularity in rhythm and consistent strength and volume, the patient is assured of longevity of life. This pulse is called *dirghāyushyi* (long life pulse).

If the pulse is not displaced from its own site and seems to be slender, there is no fear of his or her death and the disease will be cured.

If *prakruti* (deep pulse) and *vikruti* (superficial pulse) show the same characteristics of *vāta-pitta-kapha* spikes, the prognosis is good.

If the pulse beats like the progression of a quail at the site of *pitta* and at the time of *pitta*, it indicates good health. If the pulse beats like the progression of a swan or partridge at the site of *kapha* and at the time of *kapha*, it indicates good health. Similarly, if the pulse beats like the progression of a cobra during  $v\bar{a}ta$  time, the condition is also favorable.

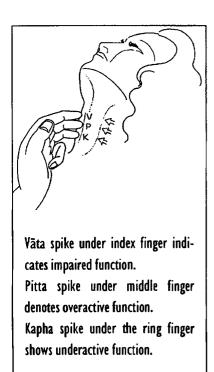
We can examine all seven levels of the pulse in a normal healthy person, but when a person is extremely sick in the *bheda* stage, the seventh level of the pulse is not palpable. Just feel the pulse and its characteristics will reveal the condition of the subject. Although normally the pulse is felt under the ring, middle and index fingers, when a patient is fatally ill, the pulse under the ring or middle finger may not be present. The life governing factors are *ojas*, *tejas* and *prāna*. When *ojas* and *tejas* are depleted and only *prāna* is present, one can feel the pulse only under the index finger.

The pulse which is very fine and subtle is a quickening pulse. When a patient is dying, the pulse is not present in all seven levels. In that condition don't go into superficial and deep but just try to feel the pulse. The nature of this pulse is very subtle. Just a little bit comes, then a bit more comes. The pulse is like a thread and each throb has distance from the next. There is a wide gap between two uplifts and it comes up and disappears. The throbs have clarity and a steep stroke, quick and soft, and can only be felt under the index finger. Such a pulse indicates an unfavorable condition and the patient's life is in danger.

Wide gap between two uplifts.



Faint uplifts with gaps between them.



The next pulse to consider is extremely faint. It comes for a few beats and then there is a gap, a couple of faint uplifts and then another gap. It is irregularly irregular, a soft, slow, agitated pulse. This pulse shows a *tridoshic* involvement and is also a quite serious and unfavorable condition.

In some patients the radial pulse is completely absent and only the carotid can be felt. The carotid is called *jīvan*  $s\bar{a}kshi$ , life witnessing, and it shows the presence of life. If three fingers are placed on the carotid, with the  $v\bar{a}ta$  finger at the distal position, and the pulse is only delicately felt under the ring finger, that means life will last for only 12 hours.

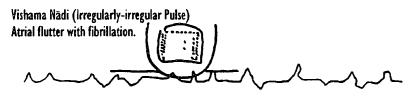
We have already discussed slow pulse in a normal person, which shows slow metabolism. Slow pulse is found in cases of *manda agni* (low *agni*), excess *kapha*, old age and chronic indigestion (which is also *manda agni*). Joggers and other athletes have a slow resting pulse, about 50 to 60, which is healthy. In meditation the pulse is also slow. However, in the pathological condition of bundle branch block, the rate is slow. Sometimes a *yogi* stops his heart and his metabolism and heart rate become slow. In normal sleep the pulse rate slows down. A state of anxiety may mask the true rate of the pulse. If someone is feeling your pulse, that thought enhances the rate of the pulse due to anxiety and stimulation.

What are the conditions when the pulse becomes imperceptible? The pulse is difficult to find in trauma or shock, either psychological or physical. The cardinal signs of shock are perspiration, pulselessness (which means imperceptible pulse), pallor and falling blood pressure. Other precipitating conditions include suffering from a fall, fright and fainting.

Other examples include cholera where the pulse becomes impalpable because of severe dehydration. Also, when a bone is fractured, causing blood to go to the area of the injury, the pulse is difficult to feel. Other conditions of impalpable pulse are severe diarrhea and vomiting, which also lead to dehydration. In influenza, when a person perspires too much, the pulse is faint. In addition, hypothermia, multiple orgasms in one night and severe blood loss will affect the pulse. Sushruta was a surgeon and comments about the effect of blood loss can be found in his writings.

One must look at these conditions for prognosis. When the patient is confined to bed and the pulse under the index finger is felt on only one-third of the distal curvature, that is a most serious condition.

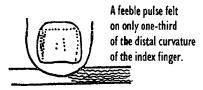
When the pulse beats in rapid succession of vāta-pittakapha—at one moment it feels like a vāta pulse, at the next moment it feels like *pitta*, the third moment it feels like kapha—one moment it is forceful and the next feeble, this pulse is irregular oscillation, which is irregularly irregular, and is present in atrial flutter with fibrillation. That pulse is called vishama nādi.



A regularly irregular pulse, when every fifth, sixth, or seventh beat is lost, indicates an extra systole, which is caused by immature ventricle contraction or incomplete contraction of the ventricle resulting in the heart missing a beat.

When the pulse has a little notch like the hump of a camel, it shows a rtic stenosis. This pulse is called *ushtra*  $n\bar{a}di$ .

A person in a coma is unconscious and the pulse will vary depending upon the type of coma. If it is a diabetic coma, the pulse will be *kapha*—slow, steady, deep, heavy and will be felt only under the ring finger, the *kapha* finger. In hepatic pre-coma, the patient is rowdy and violent, and says nonsensical things because the toxins from the liver affect the higher cerebral centers. But when a person goes into hepatic coma, it is very difficult to bring that person back to consciousness. The pulse has a *pitta* nature, it is



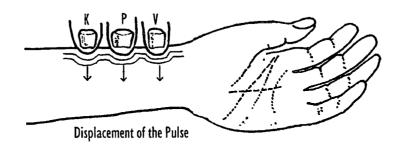
Ushtra Nädi (Camel Pulse)

bounding and jumping like an angry frog. But the patient is totally unconscious and doesn't respond even to painful stimuli.

Uremic coma is brought on by renal failure with high urea levels in the blood and the toxins from the kidney lodge in the lungs and brain, causing the person to have severe breathlessness. The pulse will be  $v\bar{a}ta$  and pitta. A coma due to encephalitis, which is a viral infection, will create *pitta* and *kapha* spikes in the pulse. *Tarpaka kapha* and  $s\bar{a}dhaka pitta$  are affected. A meningeal coma will manifest a pulse which is  $v\bar{a}ta$  and extremely feeble.

The pulse becomes very fast in case of thyrotoxicosis, anxiety, excitation, exertion, grief, sadness and anger. All these conditions may make the pulse temporarily fast. In thyrotoxicosis the pulse will be fast as long as the toxic goiter is there. Other conditions that create a fast pulse are fever and toxemia.

If the pulse under each finger (index, middle and ring) is displaced from its normal position, it indicates unfavorable prognosis. This pulse shows displaced *ojas* (*ojo visramsa*). However, one has to consider normal anatomical disposition in some individuals.



The pulse that stops and beats slowly and stops again indicates a fatal condition (complete heart block). This pulse indicates depleted  $pr\bar{a}na$ .

The pulse that is very cold to the touch (nearly imperceptible) indicates very poor  $vy\bar{a}na$  and is a fatal condition. This pulse indicates myocardial failure and vasomotor paresis.

#### Secrets of the Pulse

The pulse that is deep-seated and is extremely feeble indicates that death is approaching.

The pulse that is irregular, feeble, deep and is felt only between two fingers indicates a very serious condition and is considered hopeless.

If the pulse leaves its normal site, disappears and comes back again to that same site, such a pulse indicates death is near.

The pulse that jumps like a sparrow indicates the condition will be curable only with prolonged and difficult effort.

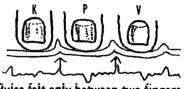
If the pulse is cool, weak and like a soft thread, it indicates death (ill-defined pulse due to weak heart and relaxed vascular tension).

If the pulse beats with extreme rapidity, it indicates a bad prognosis.

If the pulse is slow, cold and deep, it indicates feeble prāna.

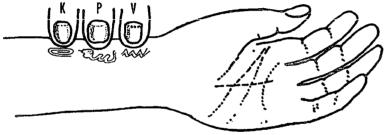
If the pulse beats like the progression of a frog at one time, like that of a swan at another time and then becomes rapid like a snake for a moment, and if the patient has a fever for one month, that indicates triple *doshic* derangement and there is no hope of life. An example of this condition is toxemia due to typhoid fever or perforated peritonitis. This pulse is true of typhoid fever, even though in the beginning of this condition there is relative bradycardia.

If the *pitta* pulse under the middle finger becomes snake-like, the *kapha* pulse under the ring finger becomes coil-like, and the *vāta* pulse under the index finger becomes zigzagged and crooked, that means death will occur in four days.



Pulse felt only between two fingers.







Pulse feels like an earthworm

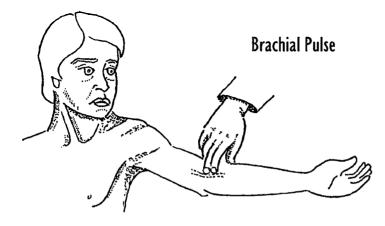
If the pulse beats like the progression of an earthworm and again like a snake, and feels slender and fine, that indicates that the patient will die at the end of a month's time.

<b>Pulse Conditions with</b>	Unfavorable Prognosis
- Andrew - Milder - Million - m	itions are indicative of bad
• <b>prognosis</b> • <b>⊋Rapidity</b> of the pulse	
• Hardness (this indicates	that the pulse is felt between
<ul> <li>the beats, as in arteriosc</li> <li>Extreme slowness of the</li> </ul>	pulse (due to heart block)
<ul> <li>High tension pulse (hyp</li> <li>Extreme smallness (deh</li> </ul>	
• Extreme arrhythmia (mu	ltiple extra-systole)
<ul> <li>Displacement of the pul</li> <li>Imperceptibility of the p</li> </ul>	ulse
• Irregularly irregular pul- tion)	e (atrial flutter with fibrilla-
• A pulse which is only fe	It under the index finger at
the <i>vāta</i> spike, is very fo	eble and moves like an ant.

#### Other Pulses

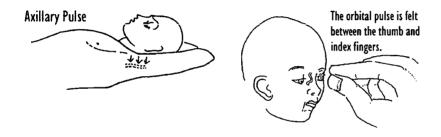
It is also possible to feel the pulse in the temporal region on the side of the head. In some people the temporal pulse moves in a zigzag fashion. When the right brain is functionally active, there is more female energy and a clear throb can be felt on the right side. When the left brain is working, which is male energy, a prominent throb on the left side is experienced. If one keeps a record of the temporal pulse in the morning, afternoon and evening, and continually gets throbbing on the middle finger on the right temporal artery, that person is prone to migraine. *Doshically* a migraine is predominately *pitta* and the secondary *dosha* may be  $v\bar{a}ta$  or *kapha* but in every migraine headache *pitta dosha* is involved.

If throbbing under the index finger at the site of the temporal pulse is felt more on the left side of the head, the person has poor memory caused by  $v\bar{a}ta$ . But feel it morning, afternoon and evening for eight days in a row. A consistent reading indicates that this person is losing recent or remote memory.  $V\bar{a}ta$  will be high and is responsible for majjā  $dh\bar{a}tu's$  loss of memory which may even lead to dementia. If kapha is the predominant pulse, either on the right or the left side of the head, tarpaka kapha is aggravated and may lead to manic depression. So a vāta pulse shows pre-dementia, a pitta pulse shows migraine, and a kapha pulse shows bipolar or manic depression.



There are other pulses—the orbital pulse, the carotid pulse and the brachial pulse. If the radial pulse is feeble and there is a strong brachial pulse, the patient will be all right for five years. The brachial pulse is the pulse for longevity. If the radial pulse is feeble and the left brachial artery is thin, slender and elastic, that means the person will have a favorable prognosis for more than five years.

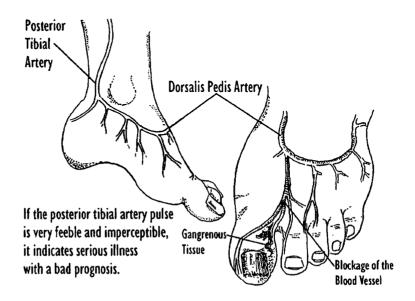
Feel the axillary pulse under the armpits. This pulse is called *jivan darshani*, the "don't worry, be happy" pulse. If this pulse is strong and feels like a long slender cord, that



person will live for more than 50 years. However, disease pathology is invasive and the person may become fatally ill at any moment even though the pulses are strong. If there is no pulse in between the eyebrows (orbital pulse), the person may become sick within six weeks. The pulse at the eyebrows is connected to the immune system.

There are a few other interesting pulses. In a *pitta* person, lack of a strong throbbing of the *pitta* pulse in the posterior tibial artery on the right foot means the person may become sick within one month. If the posterior tibial artery is extremely feeble on the left foot, then the *kapha* person may become sick. One month is not a fixed period, but is only approximate. If the posterior tibial pulse is not perceptible at all during a serious illness, it denotes that the patient will live only for a day or two.

In a  $v\bar{a}ta$  person, if the dorsalis pedis artery on the top of the arch is extremely weak, that person will be sick within one month. Compare on both feet. This pulse is important in assessing the circulation of the lower extremities, in postoperative cases as well as gangrene.





The concept of  $n\bar{a}di$  in the ancient Vedas is much more than the physical arteries. The *rishis'* concept of  $n\bar{a}di$ includes the flow of *prāna* that is moving through the body. The physiopathological changes of these *prānic* currents, etheric channels of energy moving through the cardiovascular system, can best be felt through the radial, brachial, axillary, carotid, temporal, femoral, dorsalis pedis and posterior tibial arteries, and these are the locations where we try to feel the pulse.

Ayurveda says logic gives discriminating capacity and physical proof. Therefore, logic is welcome. But there are many things that cannot be proven on the physical level. *Pratyaksham alpam*, physical proof based upon objectivity, is limited. Subjective experience is vast, and that is why every individual is called *apta*, a person who tells exactly how he or she experiences something. In pulse diagnosis, *apta* is our patient, because it is the patient who first realizes every symptom and then tells the physician. Then the physician observes, examines, and comes to an understanding of the etiology and pathogenesis of the condition. To describe experience exactly demands a great deal of awareness. *Nādi vijñānam*, the ancient art of pulse in Ayurveda, is based upon both subjective experience and objective observation.

There is an ancient book called Yoga Vashishtha. In that text Rāma's guru, Vashishtha, gives a dialogue about  $n\bar{a}d\bar{i}$ vijñānam. There he has given the names of all the major  $n\bar{a}dis$ , including those mentioned earlier in this text. An additional  $n\bar{a}di$  is sushumna, the spinal cord, which has no pulsation and is not directly related to the cardiovascular pulse. It is a main nerve, even though it is called a  $n\bar{a}di$ .  $\bar{I}d\bar{a}$ is the left sympathetic trunk and pingalā is the right trunk connected to the spinal cord. Brahma randhra, located at the anterior fontanel of the brain, is connected to  $\bar{i}d\bar{a}$ . Shiva randhra, located at the posterior fontanel, is related to pingalā.

Within the sushumna there is an important  $n\bar{a}di$  called *chitra*. This  $n\bar{a}di$ , the central canal of the spinal cord, when

activated gives higher spiritual vision, which is the meaning of *chitra*. It is full of beauty and awareness and leads to *brahma nādi*, which is located at the foramen lacerum, a small aperture in the brain. Other *nādis* are *vilambikā*, the sciatic nerve, and *sarasvati*, the lingual nerve. The goddess of language is Sarasvati, and under the tongue there is a network of nerves called *lalanā chakra*, which is related to *sarasvati*. *Pusha nādi* is related to the left ear and gandhari nādi to the right ear. The alambushā nādi is connected to the reproductive organs, the penis and vagina.

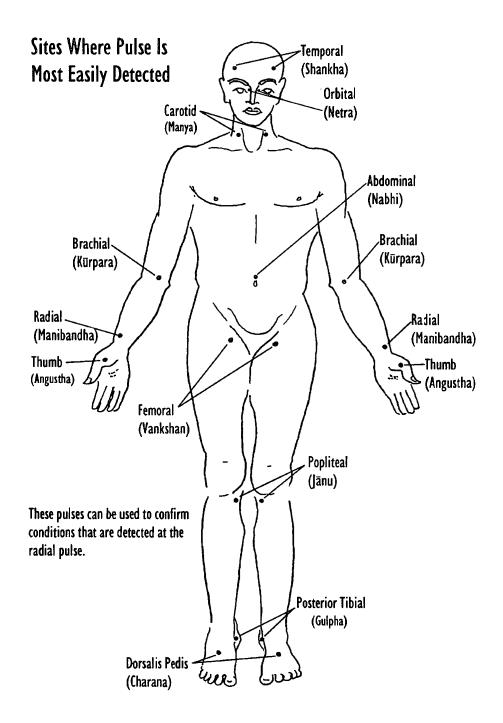
These are the  $n\bar{a}dis$  connected to the nervous system and wherever there is a nerve there is a blood vessel. We cannot feel these  $n\bar{a}dis$ , because they are subtle and deep. These are yogic  $n\bar{a}dis$  and here the word  $n\bar{a}di$  is used to mean nerve. These  $n\bar{a}dis$  are not palpated by Ayurvedic physicians for diagnostic purposes. They are awakened through meditation and yogic practice. Our objective is to awaken sushumna, awaken chitra and brahma  $n\bar{a}di$  and become enlightened but mere intellectual knowledge of the yogic  $n\bar{a}dis$  is not going to make life complete. Knowing oneself through the practical application of the radial pulse is essential. To know oneself is to know one's prakruti and vikruti and this self-knowing is the foundation of life. For that purpose, one has to master the radial pulse.

One can develop extrasensory perception through meditation, daily practice of reading the pulse and with the grace of God. It is practice which brings perfection. You are the best book, you are your teacher, your disciple, your student, your friend and your *guru*. Learn from your observations. Read all seven levels of your own pulse and keep a record. One day you will receive that gift of grace and the doors of perception will open.



- The temporal pulse can be read during complaints of dizziness, fits, Parkinson's, migraine headache, sinus conditions, poor memory and insomnia. The functions of *prāna vāyu*, *sādhaka pitta* and *tarpaka kapha* can be checked at this location.
- The carotid pulse should be felt in hyper- and hypothyroidism, laryngitis, pharyngitis, speech disorders and during shock and unconsciousness. The carotid pulse is located close to the heart and indicates the activities of *udāna vāyu* and *prāna vāyu*.
- The brachial pulse is felt during pleurisy, pericarditis, diabetes and generalized anasarca. This pulse indicates the activities of *avalambaka kapha* and *kledaka kapha*.
- The abdominal pulse is felt when there is abdominal discomfort, diarrhea, dysentery or sprue syndrome. Samāna vāyu and pachaka pitta can be checked at this site.
- The radial pulse is the one most commonly felt.
- The thumb pulse is felt in cases of massive edema when the radial or brachial pulses cannot be felt. It is connected to vyāna vāyu, prāna vāyu and kledaka kapha.
- The femoral pulse is felt during pelvic, bladder, uterine, testicular and ovarian disorders. This pulse is related to *apāna vāyu* activity. In aortic regurgitation the femoral pulse becomes heaving and creates a sound like a pistol shot which can be heard through the stethoscope.
- The popliteal pulse is felt in solid edema, lymphatic edema and arthritis. It is connected to vyāna vāyu and lymphatic circulation.
- The posterior tibial pulse is felt when there is edema on the legs, nephrotic syndrome or kidney disorder. This pulse indicates the activity of *kledaka kapha* and *apāna vāyu*.
- The dorsalis pedis pulse is felt to confirm the circulation of the lower extremities in post-operative and pre-gangrenous conditions. This pulse indicates the activity of vyāna vāyu, kledaka kapha and prāna vāyu.

All of these pulses can be used to confirm conditions detected in the radial pulse and to check the activities of the *doshic* subtypes.



## 

## Glossary

adha jatru granthi — the thymus gland

agni — the fire element in the body that regulates body heat and performs digestion, absorption and assimilation of food stuff. It transforms food into energy or consciousness.

Agni — a type of individual personality that, when detected at the sixth level of the pulse, indicates a worshipper of knowledge

ahamkāra — a continuous feeling of "I am"; a center in the daily operating consciousness from where each individual thinks, feels and acts

 $\bar{a}h\bar{a}ra rasa$  — the end product of digested food that nourishes all bodily tissues; chyle

 $\tilde{a}j\tilde{n}\tilde{a}$  — the center point between the eyebrows where right meets with left, alpha meets with omega, and intuition meets with logic; it is the highest end point of human polarity

ākruti — the volume and tension of the pulse

alambushā nādi — connected to the reproductive organs

 $\bar{a}$ lochaka — one of the subtypes of *pitta*, situated in the sense organ of seeing; it is responsible for vision and color perception

āma — the raw, undigested food products that, having become fetid, become toxic to the system; the root cause of many diseases

āma vāta — rheumatoid arthritis (vāta carrying āma into the joints)

āmāshaya — the stomach as a vessel of undigested food

ambu vaha srotas — water-regulating channels of the body connected to the gastrointestinal mucous membrane and indirectly connected to the organs of water, the kidney and sweat glands, and includes the cerebro-spinal fluid as well.

anāhata — the heart *chakra*; the center of unconditional love in the heart, it also denotes the cardiac plexus which governs heart activity.

angustha purusha — a mystic, thumb-sized flame of individual consciousness that can be seen at the right chamber of the heart during deep meditation

añjali — a measurement formed when two hands meet together to make an empty bowl.

antar darshana — inner vision or insight

anuchāra — beyond the power of speech where words cannot reach, where thoughts cannot describe; this point is located about the width of 10 fingers above the physical brain; it is the junction between the auric field and cosmic consciousness apāna — to eliminate

apāna vāyu — one of the subtypes of  $v\bar{a}ta$  that regulates excretion, elimination and downward movement

ārtava dhātu — one of the seven  $dh\bar{a}tus$  (bodily tissues); the female reproductive tissue; ova, the female eggs

āshaya — a vessel

asthi bhagna — a bone fracture

asthi dhātu — one of the seven  $dh\bar{a}tus$ ; the bone tissue which supports the body, giving protection, shape and longevity

asthi saushiryam - osteoporosis

aum — the primordial cosmic soundless sound; it is written as a-u-m which represents creation, preservation and transformation of everything that exists in form or that can be expressed by experience

avabāhuka — acute arthritis of the shoulder joint; a pain in the neck, shoulder and along the arm due to a pinched nerve(s)

avalambaka — one of the five *kapha* subtypes present in the heart and lungs that supports all bodily *kapha* through circulation

Ayurveda — the science of life; its roots are in the Sanskrit words "ayur" meaning life and "veda" meaning the ancient scriptures roughly translated as knowledge or science

bala — the force or strength of the pulse

basti — one of the five important cleansing measures of  $pa\bar{n}chakarma$ ; it eliminates excess  $v\bar{a}ta$  dosha out of the system via medicated herbal tea or oil enemas and normalizes all  $v\bar{a}ta$  disorders

bhagandar — fistula in ano

bhairavi mudrā — also called  $sh\bar{a}mbhav\bar{i}$  mudrā, a practice of looking at an outer object while at the same-time looking at the inner looker; this practice gradually develops into passive awareness and a witnessing state of bliss

bhakti — the love divine that is felt in the heart center

Bhakti Yoga — one or the three main spiritual paths, the path of devotion leading to oneness with the Divine within one's self

bhasma — a specialized Ayurvedic compound alchemically prepared by proper purification and burning into ash; *bhasmas* have a high potency and release  $pr\bar{a}na$  into the system

bhastrik $\bar{a}$  — a breathing practice where air is passively drawn in and forcibly pushed out, as in a bellows; a practice to increase heat and improve circulation

bheda — the seventh stage of the disease process, complete manifestation, where one can differentiate the disease; during this stage the involvement of each  $dh\bar{a}tu$  is clearly differentiated with its complications and structural changes

bhrājaka pitta — one of the five subtypes of pitta, located in the skin of the entire body; its function is to give tactile sensation, color complexion and luster to the skin

bhrāmarī — a type of breathing exercise where a soft humming sound, like a bee, is made during exhalation and/or during inhalation; a practice for calming the mind and  $s\bar{a}dhaka$  pitta in the system

bhūta agni — present in the liver and gastrointestinal tract and governing the transformation of the elements of Ether, Air, Fire, Water, and Earth present in food into the biological elements. For each element there is a specific *bhūta agni*.

bhutonmāda — psychosis due to the influence of an evil spirit

 $b\bar{i}ja$  mantra — a sacred, subtle, primordial sound from a Sanskrit word associated with the *chakras* 

bodhaka kapha — one of the five subtypes of *kapha*; located in the mouth, tongue and larynx, it enables the perception of taste and assists in digestion

Brahma — the pure, expansive, all-pervasive universal consciousness; *sattvic*, creative potential; one of the three aspects of the Hindu trinity of God

brahma nādi — located at the foramen lacerum, a small aperture in the brain

brahma randhra — a small opening in the cranium, located at the anterior fontanel of the brain and connected to cosmic consciousness

chakras — the energy centers in the body; related to nerve plexus centers which govern the bodily functions. Each *chakra* is a separate reservoir of consciousness connecting the physical body to the astral body.

chidākāsha — a space within the brain that is functionally connected to the synaptic spaces in between the neurons; the inner space of pure awareness present in the ventricles of the brain

chitrā nādi — a  $n\bar{a}di$  at the central canal of the spinal cord that, when activated, gives higher spiritual vision full of beauty and awareness; a bridge between the physical and astral bodies, expressed in the fifth level of the pulse

darshana — observation; looking for the signs and symptoms of disease by the process of observation; a total seeing without comparison and judgment; being in the presence of someone

dhamanī — a pulsating blood vessel or artery

dhanustambha --- tetanus

dhārana — the mental contemplation and retention of information into memory

dharani — that which holds all organs together

dhātu — "dha" means to hold together, to build together;  $dh\bar{a}tu$  is the structural, building, elemental tissue; there are seven tissues defined in Ayurveda: rasa (plasma), rakta (blood tissue), māmsa (muscle tissue), meda (adipose tissue), asthi (bone marrow), majjā (bone and nerves), shukra (male reproductive tissue) and  $\bar{a}rtava$  (female reproductive tissue)

dhātu agni — the fire element within each  $dh\bar{a}tu$  responsible for the selection of proper nutrient substances, according to the specific  $dh\bar{a}tu$ 's needs, and the transformation of nutrient substances appropriate to the corresponding  $dh\bar{a}tu$  and each  $dh\bar{a}tu$ 's by-products, waste products and the next  $dh\bar{a}tu$ 's immature tissue; keeps the  $dh\bar{a}tu$  healthy and functioning properly

dhātu kalā — a membranous structure that surrounds each tissue, separating it from the adjacent tissue. Within each kalā, that *dhatu's agni*, *ojas*, *tejas* and *prāna* are located and perform the normal functions of the tissue independent of the other *dhātu kalās* 

dīrghāyushyi — a type of pulse indicating long life

dosha — referring to  $v\bar{a}ta$ , *pitta* and *kapha*; the main three psycho-physiological functional principles of the body which determine each individual's constitution at the time of conception. The *doshas* govern the individual's response to changes when they are normal. When disturbed, they can initiate the disease process.

doshic - referring to one or more of the three doshas

gaja gati — the elephant pulse; shows extremely high kapha blocked in the lymphatic tissue; this pulse is present under the kapha finger

 $gandak\bar{a}la$  — an indication or warning of a critical illness, calamity or accident of the future that is felt only in the fifth level pulse

gandharī nādi — related to the right ear

garbha gulma — a state where the cells of the uterus lose their intelligence and think that the uterus has conceived, continuing to grow; as in a uterine fibroid tumor

garbha srāva — miscarriage

gati — the manner in which the pulse moves; the pulse is described by comparing it to the movements of different animals

ghati yantra grahani — chronic malabsorption syndrome; tuberculosis of the small intestine

graha chikits $\bar{a}$  — astrotherapy using the healing influences of the planets and their gemstones, crystals and mantras

grahani - chronic diarrhea, malabsorption syndrome in the small intestine

granthi roga - lymphadenitis

granthi rupā nādi — syphilitic arteriosclerosis

grīshma — the summer season

gulma - any tumor, lump or diverticulosis

guna — three qualities influencing all creation: sattva, rajas and tamas. Sattvic qualities imply essence, reality, consciousness, purity and clarity of perception. All movement and activities are due to rajas. Tamasic qualities bring darkness, inertia, heaviness and materialistic attitudes. There is a constant interplay of these three gunas in all creation.

guru — teacher; one who removes the darkness of ignorance; the channel through which knowledge of God comes to one; also, heavy, an attribute characterized by heaviness, weight and bulk

halimaka - malignant jaundice or hepatitis C

ham — the mantra of the fifth chakra, the throat chakra, visuddha; the seed sound of the space element

hamsa — a male swan; the sound vibrations of the breath that make up the sound of the "so-hum" mantra, "so" during inhalation and "hum" during exhalation. "So" represents cosmic consciousness and "hum" the individual ego.

hamsa gati — the swan pulse, the primary description of the kapha pulse

hams  $\bar{i}$  — a female swan, also the sound vibrations of the breath moving through the pulse, a synonym for the pulse

Hanuman Chalisa — the 40 poetic, sacred mantras for praying to the eternal, everliving servant of Ram, Hanuman, the model of devotion and service

hanustambha — lockjaw

harita nīla mani — an aquamarine gemstone

harita pita mani — onyx

harshala — an alexandria gemstone

hemanta - the winter season

hemaratna — an alexandria gemstone

hrid roga — heart disease

hridaya dhārā kalā — the membranous structure around the heart; i.e., the pericardium and endocardium

 $id\bar{a}$  — the subtle energy channel which flows along the left side of *sushumna* and controls the parasympathetic branch of the autonomic nervous system

Indra — a personality type, found at the sixth level of the pulse, indicating a royal and religious personality

indranīla — lapis lazuli

Ishānya — a personality type, found at the sixth level of the pulse, indicating someone who is *sattvic*, fortunate and spiritual

jñāna yoga — one of the three main spiritual paths, the path of knowledge to realize God or the Divine within one's self

jāthar agni — the digestive fire, located in the duodenum and the stomach; the central fire of the body; responsible for the digestion and transformation of food materials

jīva — the individual consciousness, soul; a reflection of the divine

kampa vāta — Parkinson's disease or vepathu

kanda — a prolapsed uterus

kapha — one of the three *doshas*, combining the water and earth elements; the energy which forms the body's structure—bones, muscles, tendons—and provides the "glue" that holds the cells together. *Kapha* supplies the water for all bodily parts and systems. It lubricates joints, moisturizes the skin, and maintains immunity. In balance, *kapha* is expressed as love, calmness and forgiveness. Out of balance, it leads to attachment, greed and envy.

kapha gulma — any encapsulated benign tumor, cystic swelling or amoeboma creating a tumor-like structure

karma yoga — one of the three main spiritual paths, a path of action for attaining liberation

kāka — a crow, used to describe a type of pitta pulse

kāla — time; a movement of prāna; respiration rate of 12-15 breaths per minute

kāmala — jaundice or hepatitis A

kāsa — cough

kāthinya — the consistency or hardening of the blood vessel wall

khavaigunya — a weak or defective space within an organ or tissue of the body where a pathological condition is likely to begin

kledaka kapha — one of the *kapha* subtypes; its function is to moisten the food particles; after breaking them into small pieces, it liquefies the digested contents of food materials in the stomach and protects the stomach wall from the digestive enzymes and acids; active in the stomach

kloma — pancreas and caudet plexus in the brain which secretes cerebrospinal fluid and is the root of *ambu vaha srotas* 

kosha — sheath; subtle body; there are five sheaths: sheath of bliss, sheath of knowledge, sheath of mind, sheath of  $pr\bar{a}na$  and sheath of food.

kshaya - diminished, deteriorated, deficient or decreased

Kubera — a personality type, found at the sixth level of the pulse, indicating someone who is *sattvic*, rich in mind and blessed with long life

kundalin $\overline{i}$  — a coiled, serpentine spiritual energy which, for most people, is dormant at the root of the spine

kundalinī shakti — the power of pure energy; the term used in speaking of the awakening of spiritual energies

laghu — light; an attribute characterized by aiding digestion and cleansing, promoting freshness and alertness. In excess, it may cause insomnia and ungroundedness.

lalanā chakra — the sublingual lower plexus or network of nerves under the tongue that controls the movements of the tongue and helps in speech

lam — the mantra of the first chakra,  $m\bar{u}l\bar{a}dh\bar{a}ra$ , the seed sound of the earth element

lasnya - cat's eye gemstone

lāvaka — the common quail, used to describe a type of pitta pulse

lohita — bloodstone; also means iron-containing liquid connective tissue; the blood

Lord Shiva — the third God in the Hindu Godhead Trinity; the deity of the people, of the common folk; literally, Shiva means "good" or "auspicious"; known as Rudra, the dissolver, the benevolent one; Shiva has eight qualities: independence, purity, self-knowledge, omniscience, freedom from *mala*, boundless benevolence, omnipotence, and bliss

madhumeha — glycosuria; juvenile diabetes or diabetes insipidus

Mahad — the great principle; intelligence, the cosmic aspect of the intellect, containing also the individual intellect, called *Buddhi*, ego and mind, it is present in the creation of the universe. Its special function is determination.

Mahesh — tamas, resistance to change or potential destructive force

majjā dhātu — one of the seven  $dh\bar{a}tus$ ; the bone marrow and nerve tissue; it is unctuous and soft; its main function is to oleate the body, to fill up the bone, and to nourish the *shukra dhātu*. It plays an important role in communication.

manda - slow; characterized by slow action, sluggishness, dullness, relaxation

manda agni — a condition of *agni*, slow gastric fire; *kapha*-type fire, resulting in slow digestion and slow metabolism

mandūka gati — the frog pulse; the primary description of the pitta pulse

manika — a ruby gemstone

manipūra — the third chakra, located in the region of the solar plexus and umbilicus

mantra — a sacred word or phrase of spiritual significance and power; mantras are of two classes: 1) those given expression by the voice and 2) those that are not spoken but listened to internally. Every mantra has its own deity, meter and rishi, the observer.

mantra yoga — union with God through the power of mantra

mayūra gati — the peacock pulse, common in arterial hypertension; occurs most often in *pitta-kapha* people

meda dhārā kalā — membranous structure or fascia which holds adipose tissue on the buttocks, belly, chest and the cheeks

meda dhātu — one of the seven bodily tissues; the fat tissue, supported by  $m\bar{a}msa$   $dh\bar{a}tu$  (muscle tissue); the function of meda (fat) is to give shape and to lubricate the body; adipose tissue/fat in excessive quantity may produce obesity and physical weakness

māmsa dhārā kalā — a membranous structure which is the muscle sheath that separates one muscle from another

māmsa dhātu — one of the seven  $dh\bar{a}tus$ ; the muscle tissue; produced by *rasa* and *rakta*, its main function is to provide physical strength, coordination, movement, covering, form and protection.

mānas — the mind

mānas prakruti — the constitution of the mind

mānas vikruti — the current state of the mind or the altered state of the mind

moti — a pearl gemstone

 $mudr\bar{a}$  — a gesture or arrangement of the fingers for communication between body, mind and consciousness

mukha paka - stomatitis or ulcer

mūlādhāra — the first *chakra*, located in the root area of the trunk of the body; associated with survival, groundedness, stability, security and instincts

mūtrakrichra — strangury; disuria or difficulty in passing urine

mūtrāshaya — the urinary bladder

Nairutya — a personality type, found at the sixth level of the pulse, indicating someone who is *tamasic* and loves to sleep

nādi — literally, a river; the river of life as expressed through the pulse; the pulse; a subtle channel

nādi vijñānam — the art or science of reading the pulse to detect existing and potential states of a person's body, mind and spirit

nephrite - jade

nīla sphatika — an amethyst gemstone

nīla shveta mandala — a blue sclera which is present in cases of osteoporosis

nīlam — a blue sapphire gemstone

ojas — the pure essence of all bodily tissues ( $dh\bar{a}tus$ ); the superfine essence of kapha; maintains immunity, strength and vitality of the body. Severe depletion of *ojas* can lead to the death of the person.

ojo visramsa — displaced *ojas*; *ojas* remains unstable during the seventh and eighth months of pregnancy, moving between the body of the fetus and the body of the mother. If a baby is born with insufficient *ojas* or displaced *ojas* during the sev-

enth or eighth month, this premature baby's survival is difficult because of the displaced ojas.

pāchaka pitta — one of the five subtypes of *pitta* located in an area between the stomach and the small intestine. It is the combination of bile and pancreatic juices. When functioning abnormally, it may increase the appetite, cause a burning sensation, thirst, insomnia, digestive disorders, diarrhea and/or jaundice.

padma gati — the lotus pulse; a unique pulse indicating that the person is enlightened; felt under the kapha finger

padmanabha mani — a ruby gemstone

pakvāshaya shūla — colic

pañchakarma — the five-fold measures for elimation of excess dosha and/or  $\bar{a}ma$  from the body. Used for the purpose of internal purification, they are: vomiting (vaman), purgation (virechan), decoction or oil enema (basti), bloodletting (rakta moksha) and nasal administration (nasya) through the administration of specific medications

panna — an emerald gemstone

pīlu pāka — the stage of digestion and assimilation in which the lifeless molecules of food, water and air are transformed into conscious, living cells through the subtle energy of  $p\bar{l}u \ p\bar{a}ka$  agni

pingalā — a subtle energy channel that flows along the right side of sushumna and controls the sympathetic branch of the autonomic nervous system

pippali — Piper longum; a close relative to black pepper that has many medicinal properties, especially for digestion and respiration; a rejuvenating tonic for the lungs and liver

pithara paka — the subtle stage of digestion and assimilation where the *agni* of *pithara paka*, located at the nucleus of the cells, transforms and uses the qualities of *sattva*, *rajas* and *tamas* contained within the food for nourishing the mind

pitta — one of the three *doshas*, corresponding to the elements of fire and water; the body's metabolic system; governs digestion, absorption, assimilation, nutrition, metabolism and body temperature. In balance, *pitta* promotes understanding and intelligence. Out of balance, *pitta* arouses anger, hatred and jealousy.

pitta dhārā kalā — the mucous membrane of the stomach and small intestine that secretes hydrochloric acid, digestive enzymes and  $p\bar{a}chaka$  pitta

pitta grahani — chronic dysentery, sprue syndrome

pitta gulma — diverticulitis and polyp

plīhā — the spleen

plīhā roga — splenic disorders

prabhāva — the dynamic action of a substance that cannot be explained by the simple logic of its taste, energy and post-digestive effects; the specific action of

the herb, medicine or other substance that cannot be explained; electro-magnetic action through the intelligence of the substance

pradara — leukorrhea; a white discharge from the vagina

prakopa — provocation: the second stage in the disease process in which the accumulated *dosha* rises up from its natural site to affect other organs, e.g., *kapha* rising up from the stomach to the lungs, causing cough, congestion and excess mucus

prakruti — the psychosomatic, biological constitution of the individual; the fixed constitution of the person established at conception and detected in the deep pulse; inborn tendencies that manifest in the responses of the body and mind to daily living

prasara — the third stage in samprāpti, the disease process, when the aggravated dosha spreads into general circulation, moving into rasa dhātu via the body's normal circulation process

prashna — an art of inquiry and questioning of the patient's personal and family history in order to understand the history of the disease

pratyaksham — what one observes or perceives

pratyaksham alpam — physical proof based upon objectivity

pravāla — red coral

prāna — the vital life energy without which life cannot exist; the flow of cellular intelligence from one cell into another

prāna vaha srotas — the air-carrying channels, consisting of the lungs, heart, all respiratory passages and the colon

prāna vāyu — a subtype of  $v\bar{a}ta \, dosha$  seated in the brain that governs the higher cerebral activities; moves downward and inward and controls all sensory and mental functions; also responsible for respiratory functions, regulating inhalation

prānāyāma — the control of life-energy by various techniques that regulate and restrain breath through which one can control the mind and improve one's quality of awareness and perception; helps in all types of meditation

prānāchārya — one who heals by balancing the patient's prāna through his or her own prāna without using any medicine

 $p\bar{u}j\bar{a}$  — a Hindu ritual worship designed to concentrate the mind on God; a ritualistic meditation, done with devotion and affection

Purusha — the higher consciousness that dwells in the "city of the senses" of all beings, which is the physical body

pushkarāja — a yellow sapphire gemstone

rāja yakshmā — pulmonary tuberculosis or consumption

rajah — menstruation

rajas — one of the three universal qualities of *prakruti*, creativity, that which is active, mobile and responsible for movements of sensation

rakta dhārā kalā — the mucous layer or lining of all blood vessels which holds the blood within the arteries and veins

rakta dhātu agni — the heat of the fire element that is present in the blood

rakta dhātu — the second important tissue which mainly contains red blood cells and carries life-energy  $(pr\bar{a}na)$  to all bodily tissues, performing the life function, the oxygenation, of all the tissues

rakta vaha srotas — the blood-carrying channels, consisting of the hemopoietic system. Immunologically its function is governed by the liver and spleen.

 $R\bar{a}ma$  — the seventh incarnation of Vishnu; the warrior-hero of the  $R\bar{a}m\bar{a}yana$ ; the embodiment of righteousness; also, the mantra of the third *chakra*, *manipūra* 

rañjaka pitta — a *pitta* subtype; located in the liver and spleen; it confers color and is mainly responsible for the formation of blood, working along with *rakta dhātu* in the liver and spleen

rasa — the first experience of food stuff in the mouth, e.g., taste. There are six tastes in our diet. Each of these tastes is perceived by different groups of taste buds in the oral cavity.

rasa dhārā kalā — the mucous membrane lining of the lymphatics and veins containing the  $dh\bar{a}tu \ agni$  which transforms food stuff into the bodily lymph and plasma

rasa dhātu — the first of the seven  $dh\bar{a}tus$ , rasa is nourished from the digested food and, after absorption, it circulates in the entire body via specific channels; its main function is to provide nutrition to each and every cell of the body; the plasma  $dh\bar{a}tu$ 

rasāyana — rejuvenation therapy which brings about renewal, regeneration and restoration of all bodily cells, tissues and organs; enhances immunity and stamina, giving longevity to all cells

rishi — a seer; a Vedic sage; the individuals who perceived and/or recorded the Vedic hymns; the enlightened sages who shared their knowledge, medicine, philosophy and religion or spiritual teachings

rishi kesha — a spiritual center located at the top of the fourth ventricle, at the foramen lacerum, where  $pr\bar{a}na$  becomes thin like a hair

rutu - the seasons of the year

sādhaka pitta — one of the five *pitta* subtypes; responsible for intelligence, memory and enthusiasm, and is mainly concerned with the functions of the higher mental faculties

sāgararāja — an opal gemstone

sahasrāra — the seventh *chakra* or crown *chakra*, located at the topmost part of the skull or head where all polarities end. "Sa" means *soma*, the lunar energy, "ha" means sun, the male energy. This *chakra* is where male and female energies merge into one, where the lower meets with the higher, the inner meets with the outer, matter meets with energy, and darkness meets with light, alpha meets with omega, mortality meets with immortality and all definitions dissolve into the undefined.

sama prakruti — the ideal, *tridoshic*, balanced *prakruti*; when all the *doshas* are present equally. Those who have *sama prakruti* enjoy all seasons and diets, and have long life and perfect health.

samādhi — a state of perfect equilibrium; the balanced state of body, mind and consciousness. "Sama" means balanced, "dhi" means Buddhi. It is a balanced state of supreme intelligence.

samāna vāyu — one of the five  $v\bar{a}ta$  subtypes; located in the stomach and small intestine; stimulates *agni* and digestive enzymes and performs the functions of digestion, absorption and assimilation of food stuff

samprāpti — the pathogenesis of disease; the entire disease process from the cause, etjology, until the complete manifestation of the disease in the *bheda* stage

sandhi vāta -- osteoarthritis

Sānkhya — "san" means truth and "khya" means to realize; to realize the theory of the creation of the universe in order to realize the ultimate truth of human life. The term Sankhya denotes both "discriminative knowledge" and "enumeration"; Sankhya is one of the schools of Hindu philosophy; founded by Kapila, it gives a systematic account of cosmic evolution according to twenty-five categories: *Purusha* (Cosmic Spirit), *Prakruti* (Cosmic Creativity), *Mahad* (Cosmic Intelligence), *Ahamkara* (Individuating Principle), *Manas* (Mind), *Indriyas* (Ten Abstract Sense Powers of Cognition and Action), *Tan mātras* (Five Subtle Elements), *Mahat Bhutas* (The Five Great Elements).

sāra — essence; healthy; the essence of which is characterized by vitality; essential essence of the body; health, as in strong, vigorous, excellent; tissue vitality

Sarasvatī — the goddess of speech, the river of learning and the stream of supreme intelligence which is the flow of higher consciousness; the female energy of Brahma

sarasvatī nādi — located at the lingual nerve; see also lalanā chakra

sarita — a river of daily life, a synonym for the pulse

sarpa gati — the cobra pulse; the primary description of the vāta pulse

satya - timeless, pure existence; it becomes truth

sattva — one of the important gunas of the three qualities of prakruti; denotes light, clarity, purity of perception; the essence of pure awareness.

shaktipāta — an energy transmission given by the guru either by touch, by looking into the third eye of the initiate or by reciting mantra, a sacred sound, into the right ear of the disciple so that the inner pure awareness awakens in the heart of the disciple

shāmbhavī mudrā — innocent looking, one is looking without judging, without evaluating, a looking outside at the same time as one is looking inside to the looker; going beyond the object and the looker to the pure state of witnessing awareness which unfolds inner bliss

Shambhu - another name for Lord Shiva, the innocent one

sham-ksham — a merging of the male and female energies at the  $aj\bar{n}a chakra$ . The third eye is the meeting point of male and female energies.

sharada — the autumn season

shishira - the late winter season

shīta pūrva jvara — fever with rigor or chills, as present in malaria

shītalī — a practice of prānāyāma (breath control) that cools the system: inhalation is through the curled tongue, with retention; exhalation is slow, steady and complete

Shiva — the Transformer who transforms ego into bliss; the Benevolent One; the Ultimate Reality; good or auspicious; the third in the Hindu God trinity: Brahma, as Creator, Vishnu, as Preserver; Shiva, as Dissolver

shiva randhra — located at the posterior fontanel of the cranium bone and connected to sushumna  $n\bar{a}di$ 

shleshaka kapha — one of the five subtypes of *kapha dosha* present in all joints which provides lubrication of the joints and gives freedom of movement; also protects the bone from deterioration

shleshma — to hug; the qualities of kapha which hug together and create a compact mass, hence kapha is shlesma

shlīpada — elephantiasis of the leg

shotha — swelling in both feet

shukra dhātu — the seventh tissue; the male reproductive tissue which is white in color, consisting of semen or sperm

shukra or  $\bar{a}$ rtava dh $\bar{a}$ r $\bar{a}$  kal $\bar{a}$  — the kal $\bar{a}$ , producing ojas, that nourishes shukra or  $\bar{a}$ rtava dh $\bar{a}$ tu; present all over the body

shleshma dhārā kalā — the gastric mucous membrane which produces mucosal secretions and protects the stomach wall from burning

snayu — ligaments that are attached to the muscles and bones at the joints. Their function is to keep the two bones together at the joint.

snigdha — oily; unctuous; soft; characterized by smoothness, moisture, lubrication, vigor, calmness and compassion

so-hum — a mantra used with inhalation and exhalation to enter into meditation; "I am that," beyond limitation of mind an body; the unconscious repetitive prayer that goes on with each inhalation and exhalation of every living creature throughout life. So-hum is the divine sound of universal consciousness occurring in the breath of every being.

soma roga — endometriosis

sparsha — the tactile experience of touch, pain and temperature; one of the eight important examination techniques

sphatika — quartz crystals

srotāmsi (pl.) / srotas (sing.) — the different channels, the special systems. There are innumerable channels in the body; every channel has a root, *mula*, a passage, *marga*, and an opening, *mukha*. Within each channel, the physiological function of the respective organ or system is performed.

stanya — lactation

sthāna samsraya — the fourth stage of samprāpti, the disease process. The site of deposition of dosha and  $\bar{a}ma$  where the disease process localizes. This takes place at the site of *khavaigunya*, defective space; therefore *sthāna samsraya* becomes the lesion of the disease.

sthira — static; characterized by stability, supportiveness, fixity, obstructiveness, constipation

sundara — beautiful, beauty

sūryakānta — a special gemstone, pink in color and with the appearance of rose quartz

sūryāvarta - a migraine headache

sushumna nādi — the central channel of the spinal cord that carries the kundalini shakti from the root of the spine to sahasrāra, the crown chakra. The  $id\bar{a}$  and pingalā nādis are found on each side of sushumna.

sūtra — thread, the root of *sūtra* means to suture; to suture two different ideas, parts or concepts together to create profound meaning

svādhisthāna — the second *chakra*, located in the pelvic cavity; the seat of selfesteem, courage and self-confidence where vital energy meets with the vital organs

svāti nakshatra — a special star

tamaka svāsa — bronchial asthma, kapha-type; generally these attacks occur more at night

tamas — one of the three important gunas of prakruti; its characteristics are darkness, inertia and ignorance; responsible for sleep, drowsiness and unconsciousness tan mātra — the subtlest part of the five basic elements: sound, touch, sight, taste and smell. Tan mātras are present in the universe and in the mind of each individual. Through tan mātra the individual mind experiences the outer object.

tantra — a spiritual path utilizing a set of demanding practices for spiritual growth

tantu — the string of a musical instrument through which one can listen to the music of feelings and emotions, a synonym for the pulse

tapamāna — the temperature of the pulse

tapomani — a gomed gemstone

tarpaka kapha — one of the five kapha subtypes; present in the brain cells as white matter. Within the senses, on the film of tarpaka kapha, all experience, emotions and knowledge are recorded in the form of memory. Therefore tarpaka kapha performs nourishment of all senses, experience and knowledge.

tarpana — the action of a substance, that action being to provide a nutritive, toning, energizing action

tarpanam — nourishing the senses

tejas — the pure essence of the fire element; the superfine essence of *pitta dosha* which governs the transformation of matter into energy and food, water and air into consciousness

 $t\bar{a}la$  — rhythm; defined as the time interval between two consecutive or successive uplifts of the pulse

tikshna — sharp; characterized by penetration, perforation, sharpness, quickness

 $t\bar{t}kshna agni - a$  high metabolism where any quantity of food is digested quickly and the person still remains hungry; a condition linked to hypoglycemia and/or an over-active thyroid condition.

tikta ghrita — a special Ayurvedic compound of clarified butter with various bitter herbs used for medicinal purposes; bitter ghee

tittiraka — a partridge, used to describe a type of pitta pulse

tribhuja — onyx

tridosha — the three forces within the body; the three bodily humors: air  $(v\bar{a}ta)$ , fire/bile (*pitta*) and water (*kapha*)

trikatu — an Ayurvedic herbal compound of ginger, black pepper and Piper longum that burns  $\bar{a}ma$ , detoxifies the body and improves digestion, absorption and assimilation

udăna — pushes upward

udāna vāyu — one of the five subtypes of  $v\bar{a}ta$  which moves energy upward and is responsible for exhalation and vomiting. It gives energy, memory and vitality. All upward movement within the body is governed by  $ud\bar{a}na vayu$ .

unmāda — mental disorder; mania or psychosis; psychotic diseases

upa damsha — syphilis

ūrdhva jatru granthi - hyperthyroidism

urustambha — paraplegia

ushna — hot; characterized by heat, expansion, cleansing, digestion, anger, hate and judgmentalism

ushtra gati — the camel pulse; indicates a ortic stenosis with thickening or narrowing of the aortic valve; felt under the  $v\bar{a}ta$  or *pitta* finger

vaidūrya — cat's eye gemstone

vajra — a variety of diamond found naturally in coal mines that is very difficult to break

vam — the mantra of the second *chakra*, *svādisthāna*, located in the pelvic area; the seed sound of the water element

varshā — the rainy season or monsoon season

Varuna — a personality type, found at the sixth level of the pulse, indicating someone who is *sattvic*, loving and compassionate

varuna — an opal gemstone; also, the name of the god of water or the sea, therefore the opal is also called  $s\bar{a}garar\bar{a}ja$ 

vasanta — the spring season; an expression of existing inner beauty or flowering

vega — the rate of the pulse

vepathu — Parkinson's disease or tremors

vāta — one of the three *doshas*, combining the Space and Air elements; the subtle energy associated with movement. It governs breathing, blinking, muscle and tissue movement, pulsation of the heart, and all movements in the cytoplasm and cell membranes. In balance,  $v\bar{a}ta$  promotes creativity and flexibility. Out of balance,  $v\bar{a}ta$  produces fear and anxiety.

vāta gulma — diverticulosis or the formation of empty, balloon-like cul-de-sacs

 $V\bar{a}yavya - a$  personality type, found at the sixth level of the pulse, indicating someone who is *rajāsic* and emotional with mood swings

vijñānam — understanding, comprehension or specialized knowledge

vikāsi — expansive

vikruti — the current state of the individual versus the permanent constitution (prakruti); it may also denote disorder

vilambikā nādi - a nādi located at the sciatic nerve

visarpa — erysipelas

vishama agni — an irregular state of agni; the imbalanced fire or metabolism; the gastric fire being sometimes strong, sometimes weak, sometimes fast, sometimes slow, resulting in imbalanced digestion

Vishnu — the Supreme Lord; the All-pervading One without a second; the divine qualities are: knowledge, strength, lordship, power, virility and splendor; the Preserver; the second in the Hindu God trinity

vishva — universe, part of a synonym for the pulse

visphota - herpes zoster or shingles

visuddha --- the fifth chakra, located at the throat

vyakta, vyakti — that which is visible, manifest, created; the fifth stage of pathogenesis manifesting as general disease

vyāna — circulates or carries rasa and rakta dhātus, plasma, nutrients, oxygen from one part of the body to another

vyāna vāyu — one of the five  $v\bar{a}ta$  subtypes; the vital air; the life-breath which governs the circulation of blood in the body; regulates the nervous, muscular and skeletal systems in the body; responsible for the reflex arc, activity and movement of all joints

yakrut — the liver

yakrut roga — liver disorders

yam — the mantra of Air; the seed sound of the Air element; a pleasing, circulating sound

Yama — the name of the god of death

 $y\bar{a}ma$  — a personality type, found at the sixth level of the pulse, indicating someone who is impartial, withdrawn and introspective

yamas — the first *yogic* discipline; restraints; abstentions; self-control; the practice of self-restraint: non-injury (non-violence), truthfulness, non-stealing (forgiving theft), celibacy, and non-possession; Vashishtha says, "Look far, not near. Look toward the highest and not toward that which is less than the highest." Another way of addressing the *yamas* is: non-violence, truth speaking, abstinence from stealing, celibacy and dis-owning of possessions.

yashava - jade; a success-giving gem

yoga — union of the lower self with the higher self; of the inner with the outer, of mortality with immortality, of logic with love, of the definition with the undefined which happens at sahasrāra within the brain

yoga kāraka — an auspicious conjunction of planets

yoga mudrā — in a sitting posture (lotus) with a forward bend, place the face to the floor; enables the union of the lower self with the higher self

yogi - the enlightened one; the blissful one; one who practices yoga

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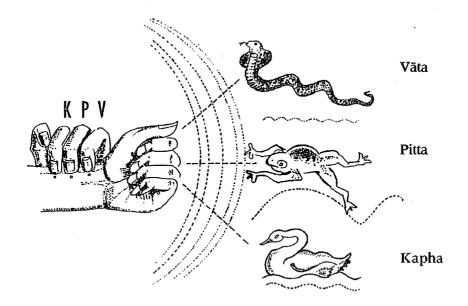
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Dr. Vasant Lad brings a wealth of classroom and practical experience to the United States. A native of India, he served for three years as Medical Director of the Ayurveda Hospital in Pune, India. He also held the position of Professor of Clinical Medicine at the Pune University College of Ayurvedic Medicine where he was an instructor for more than a decade. Dr. Lad's academic and practical training includes the study of allopathic medicine and surgery as well as traditional Ayurveda. Since 1979 he has traveled throughout the United States sharing his knowledge of Ayurveda. Currently he is Director of the Ayurvedic Institute in Albuquerque, New Mexico.



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