

Taking the Pulse: Methodology

CONTENTS

- Time Required for Examination, 57
- The Pulse Record, 57
- Ideal Conditions for Pulse-Taking, 57
 - Fig. 4-1: Pulse record, 58
- Subject's Position, 59
- Practitioner's Position, 59
- Taking the Pulse, 59
 - Locating the principal impulse, 59
 - Rolling the fingers on the pulse, 60
 - Contemporary Chinese Pulse Diagnosis technique, 60
 - Broad, closer, and closest focus, 60
 - Congruency and paradox, 61
 - Calibration, 61
 - Amber and Shen techniques, 61
 - Finger placement, 62
 - Longitudinal location, 62
 - Direction, 62
- Depth And Level, 62
 - Depth, 62
 - Finger pressure and the three depths, 62
 - Complementary positions and the three depths, 63
 - Level, 63
 - Middle position qualities, 63
- Qualities, 64
- Procedure, 64

- Broad focus, 65
 - Gender and age, 65
 - Rhythm and rate, 65
 - True arrhythmias, 65
 - Pseudo-arrhythmias and amplitude, 66
 - Uniform qualities over the entire pulse, 66
 - Iatrogenic-related qualities, 66
 - Stability or instability, 67
 - Width and hardness, 67
- Closer focus, 67
 - Wave form, 67
 - Uniform qualities on the two sides, 67
 - Uniform left side, 67
 - Fig. 4-2: Wave comparisons, 68
 - Uniform right side, 68
 - Intensity alternating between sides, 68
 - Qualities alternating between sides, 68
 - Depths, 68
 - Fig. 4-3: The eight depths, 69
 - Above the qi depth, 69
 - Qi depth, 70
 - Blood depth, 70
 - Organ depth, 70
 - Below the organ depth, 70
- Closest focus, 71
 - Principal individual and complementary individual positions, 71
 - Fig. 4-4: Both hands, 71
 - Left principal and complementary positions, 71
 - Left Special Lung position, 71
 - Fig. 4-5: Left Special Lung position, 71
 - Left Neuro-psychological position, 72
 - Fig. 4-6: Left Neuro-psychological position, 72
 - Left distal, Pericardium, and Large Vessel positions, 72
 - Fig. 4-7: Left distal position, 73
 - Fig. 4-8: Large Vessel position, 73
 - Mitral Valve position, 73
 - Fig. 4-9: Mitral Valve position, 74
 - Left Diaphragm, Heart Enlarged, and distal Liver Engorgement positions, 74
 - Fig. 4-10: Heart Enlargement position, 74
 - Fig. 4-11: Distal Engorgement position, 74
 - Left middle position, 75
 - Principal left middle position, 75
 - Fig. 4-12: Left middle position, 75
 - Lateral and medial engorgement of the Liver, 75
 - Fig. 4-13: Liver Ulnar Engorgement position, 75
 - Fig. 4-14: Liver Radial Engorgement position, 76
 - Gallbladder position, 76
 - Fig. 4-15: Gallbladder position, 76
 - Left proximal position, 76
 - Principal left proximal position, 76

- Fig. 4-16: Left proximal position, 77
- Large Intestine position, 77
- Fig. 4-17: Large Intestine position, 77
- Left Pelvis/Lower Body position, 78
- Fig. 4-18: Left Pelvis/Lower Body position, 78
- Right principal and complementary positions, 78
- Right Special Lung position, 78
- Fig. 4-19: Right Special Lung position, 78
- Right Neuro-psychological position, 78
- Fig. 4-20: Right Neuro-psychological position, 79
- Right distal (regular Lung) position, 79
- Fig. 4-21: Right distal position, 79
- Right Diaphragm, Pleura, and Esophagus positions, 80
- Fig. 4-22: Pleura position, 80
- Fig. 4-23: Esophagus position, 80
- Right middle position, 81
- Principal right middle position, 81
- Fig. 4-24: Right middle position, 81
- Spleen position, 81
- Fig. 4-25: Spleen position, 82
- Stomach-Pylorus extension and Duodenum positions, 82
- Fig. 4-26: Stomach-Pylorus Extension position, 82
- Peritoneal position, 82
- Right proximal position, 82
- Principal right proximal position (Bladder position), 82
- Fig. 4-27: Right proximal position, 83
- Small Intestine position, 83
- Fig. 4-28: Small Intestine position, 83
- Right Pelvis/Lower Body position, 83
- Fig. 4-29: Right Pelvis/Lower Body position, 84
- Similar qualities found bilaterally at same position (burner), 84
- Musculoskeletal positions, 84
- Rate on exertion, 84
- A reminder, 85
- The learning process, 85

Taking the Pulse: Methodology

Time Required for Examination

In preparing for the first pulse examination the patient should be alerted to the need for setting aside 30-45 minutes for this purpose. This will alleviate the problem of being pressed for time, which interferes with the practitioner's concentration. With any new procedure based on very fine and subtle measurements, time, practice, and patience are required for mastery. With a reasonable amount of training, the time required for the initial examination should approach 15-20 minutes, and follow-ups about five minutes.¹

The Pulse Record

There are many possible ways of constructing a pulse record that differ from the one I prefer, which is presented in Fig. 4-1. Some people prefer to have the page organized according to the left and right hands, and others according to burner. The important thing is that the record include everything that the original form requires.

Ideal Conditions for Pulse-Taking

Patients should be advised to abstain, within the margins of safety, from all medications, and especially all stimulants, before pulse examination. Most medications suppress the pulse wave by causing it to become totally uniform, thus obscuring most of the nuances of pulse diagnosis. Stimulants such as coffee also eliminate the subtleties of the pulse by creating artificial Full-Overflowing, Tense, Robust Pounding, and Bounding qualities.

It is recommended² that the patient observe the following behavior prior to the examination. One is to be rested for one-half hour beforehand. In addition, pulse-taking should not be conducted following a large meal (especially one high in fat), or if the patient is excessively hungry, has a distended bladder or is constipated, or is fatigued or emotionally upset. Anatomical abnormalities on the radial artery, very severe atheroscle-

Fig. 4-1 Pulse record

P = Present ---- = Absent (1 → 5) = Difficulty of access by degree: 1=low, 5=high

Name:		Gender:	Age:	Date:	Refer:
Weight:	Height:	Occup:			
Rhythm			Rate/Min.	Begin:	End:
			W/Exer:		
First Impressions of Uniform Qualities			OTHER RATES DURING EXAM:		
Entire Pulse:			Three Depths		
Sides, LEFT:			ABOVE QI DEPTH:		
RIGHT:			QI:		
			BLOOD:		
			ORGAN:		
			Wave:		
Principal Positions			Complementary Positions		
Distal Position			Neuro-psychological		
LEFT (Pericardium):			LEFT:		
RIGHT:			RIGHT:		
Middle Position			Heart		
LEFT:			MITRAL VALVE:		
RIGHT:			LARGE VESSELS:		
			ENLARGED:		
Proximal Position			Lung		
LEFT:			Special Lung		
RIGHT:			LEFT:		
			RIGHT:		
			Pleura:		
			Diaphragm		
			LEFT:		
			RIGHT:		
			Liver		
			Engorged		
			RADIAL:		
			ULNAR:		
			DISTAL:		
Three Burners			Gallbladder:		
Same Qualities Bilaterally			Spleen-Stomach		
UPPER:			ESOPHAGUS:		
MIDDLE:			SPLEEN:		
LOWER:			STOMACH-PYLORUS EXTENSION:		
			PERITONEAL CAVITY (PANCREAS):		
			DUODENUM:		
Other:			Intestines		
			SMALL:		
			LARGE:		
			Pelvis/Lower Body		
			LEFT:		
			RIGHT:		

rosis, and meditation can also distort the pulse. Amber discusses other factors including exercise, foods and tastes, seasons and climates, color and sound, among others.³ Jayasuria deplores our inattention, “especially in Western countries... to these pitfalls... The result is improper diagnosis and poor results.”⁴ Indeed, most practitioners give little consideration to these factors in their daily clinical procedure.⁵

The patient’s respiration should be even and not excited, and both the patient and examiner should be rested and calm. Pulse-taking at its best is a form of meditation for the practitioner, and is sometimes experienced this way by the patient.

As for when the pulse should be taken, in general, it should be performed before rather than after a meal. However, there are many other suggestions in the literature for the timing of the examination. Amber, for example, reports that the physician should “consider the auspicious moment for his undertaking and... decide which of the ten celestial stems started the first month of the year. Their constellations determine the day on which the examination [is] to take place.”⁶

Nowadays the practitioner must be prepared to take the pulse at any time of the day or night, and under any circumstance. The pulse should be examined when the patient’s and practitioner’s mental and physical states are their calmest. At the same time, the practitioner should develop the ability to distinguish the transient qualities of the pulse from the enduring ones, and to use even unusual circumstances—such as changes in the pulse during activity and rest—in order to enhance the diagnosis.

Subject’s Position

Traditionally, the pulse is taken with the patient in a seated position, and the wrist held at about the same level as the heart. Usually the patient’s wrist rests on a thin pillow on a table about thirty inches high. In the standing or reclining position, the arm is adjusted so that the wrist and heart are in the same plane. The patient’s comfort is the preeminent consideration.⁷

Practitioner’s Position

I am particularly impressed by the fact that practitioners seem unaware of how uncomfortable they are when they take the pulse. Yet in order to access the subtleties that are possible with this model of pulse diagnosis, it is imperative that the practitioner be completely comfortable and relaxed. This is accomplished by resting the arm on the table such that it is totally supported, and having one’s arm at approximately right angles to the patient’s arm. The only exception is when accessing the distal positions, at which time the practitioner’s entire arm must be lifted. Become aware of your arm and the level of fatigue and discomfort created by positions other than the recommended ones!

Taking the Pulse

LOCATING THE PRINCIPAL IMPULSE

The single most important exercise in taking the pulse is locating the principal impulse. The principal vessel must be palpated directly in the middle of its path in order to communicate messages which are reproducible by another practitioner and which can be meaningfully compared.

The principal impulse is located where one accesses the strongest impulse. If one palpates off to the side of the vessel the qualities will vary considerably from those at the vessel’s center. This accounts for most of the differences in the findings between myself and my students when we compare findings on the same pulse. The two radial arteries

may be entirely medial, central, or lateral, or one side may vary from the other, and even some positions may vary from others on the same side. Statistically, more vessels and positions tend to be accessed medially. The point is that one must take the time to find the strongest impulse in each position.

ROLLING THE FINGERS ON THE PULSE

As mentioned in Chapter 2, the ineluctable necessity of moving the fingers within, around, and between positions for a more complete assessment of the pulse is fundamental to the methodology espoused in this book. Rolling the fingers is essential because, as stated earlier, the qualities in the middle burner tend to expand and overflow into the other positions, especially into the distal position. Thus, in order to obtain an accurate reading of the upper burner, the index finger must be rolled distally toward the thenar eminence and scaphoid bone where the qualities are accessed with the medial (radial) side of the index finger, rather than the flat of the pad.

Rolling the fingers is also necessary to access the complementary positions. As previously noted, Dr. Shen originally said that certain positions would show no qualities if they were Normal. I have found this to be true for some but not for others, and about one I am uncertain. With regard to the Large Vessel position, it is clearly best if there are no qualities. This is also true for the Mitral Valve, Diaphragm, Liver Engorged, and Spleen positions. The position about which I am unsure is the Neuro-psychological. I am certain that an Absent quality at the Special Lung position is a sign of grave danger, an interpretation not shared by everyone.

With the other complementary positions, Dr. Shen stated that to be considered Normal, they should have the same quality as the principal position. I have found this to be true for the Stomach-Pylorus Extension. With the Intestine positions I have found that the commonly encountered Tight quality at the proximal positions is frequently found at the Intestine positions, but that there is a subtle difference that can be discerned with experience. I feel that the Gallbladder, Pelvis/Lower Body, and Intestine positions must be judged independently of the principal positions with which they are associated. An Absent quality at the proximal position is a sign of pathology, and at the Pelvis/Lower Body position on the same side it is also a sign of pathology; it is not Normal because it is the same as its associated proximal position.

CONTEMPORARY CHINESE PULSE DIAGNOSIS TECHNIQUE

Broad, closer, and closest focus

As will be shown in the discussion of interpretation (Chapter 17), our examination consists of three stages. They are the broad focus, the closer focus, and the closest focus. The broad focus includes the rhythm, rate, and qualities found uniformly over the entire pulse. The closer focus involves the qualities found uniformly at the different depths, sides, and burners. The closest focus are the individual principal and complementary positions.

Rather than beginning and ending with the closest focus, I recommend that, at the beginning of each session, the pulse of both wrists be taken at the same time. With the practitioner and subject facing each other across a narrow table, the practitioner's left hand palpates the subject's right wrist, and the right hand palpates the subject's left wrist.

The purpose of assessing both wrists simultaneously at the outset is to evaluate the broader and closer focus, which involve the overall state of the patient's substances, stability, heart-circulation, balance, and strength. From this assessment we have an almost immediate sense of the condition of the *qi* (intensity, amplitude, force and Flooding

Deficient wave, qi, and organ depths); *blood* (width, blood depth [thick or hollow], Full-Overflowing wave); *yin and essence* (hardness, fluidity [Slippery]); *Heart-circulation-shock* (rhythm, rate, Change in Intensity, Rough Vibration); *Stability* (Empty, Change in Qualities); *balance* (mental: Change in Rate at Rest; sides: husband-wife; wave: Hesitant); *signs of potentially serious illness* (Muffled, Ropy; Flooding Excess Wave); and *area* rather than organ pathology (uniformity of qualities at the burners).

The closest focus can now be approached as part of a larger picture of this person, rather than as isolated pieces of information of specific organs. We see the blood stagnation in the lower burner (Choppy quality) in the context of the information we already have in the first fifteen minutes or less of the examination. We already know the overall ability of the Heart-circulation and/or qi to move the blood, the heat in the blood, or the overall blood deficiency. This larger diagnostic perspective of the specific finding in the closest focus leads us to a more effective therapeutic strategy. (See case illustrations appended to Chapter 17.)

Congruency and paradox

The initial impression also prepares one to compare the overall pulse qualities in relation to the condition of the body. A very Wide pulse in a very thin person, and a very Thin pulse in a very heavy person, is usually an indication of greater disharmony than when the Thin pulse is found in a thin person and a Wide pulse in a heavy person. Also, by using both hands simultaneously, the practitioner can tune in more quickly to the incongruities that portend more serious disorders—a paradoxically Thin pulse in a man, and a Wide pulse in a woman—thereby facilitating other important adjustments in assessment.⁸

Calibration

There are important calibrations that one can make from the broader focus or first impression. A Wide pulse generally tends to be more elastic, and a Thin pulse less elastic. The less elastic qualities are associated with yin deficiency. Thus, a Thin pulse will feel less elastic, and suggest more yin deficiency, than would a pulse of normal width. With a Thin pulse, therefore, one adjusts one's thinking to take into account the possibility that this person is less yin deficient than if the pulse were of normal width, or even Wide. The practitioner would accordingly make this adjustment in interpreting all of the individual positions.

Another example of the importance of calibration made on the first impression (broader focus) is the assessment of the blood depth. A woman who attended one of our seminars presented with a Thin pulse. She also had a filling-out of the left middle position, rather than the normal diminishment, as finger pressure was released from the organ depth to the blood depth. However, the filling-out was very subtle. In fact, it was overlooked by even the experienced students. This slight increase in substance at the blood depth on release of the pressure would be interpreted as a 'blood unclear' condition (see glossary). However, one had to take into account the fact that, were her pulses of normal width, it would have filled out even more; and in fact her condition was probably 'blood heat,' which has a different etiology, pathology, and treatment than 'blood unclear.' This differentiation could be further developed using other parameters of diagnosis.

AMBER AND SHEN TECHNIQUES

According to Amber, the order of pulse-taking differs according to gender: "In the man, the left pulse is taken first; in the woman, the right. Here the procedure is the reverse of

the Ayurvedic and Unani practice.”⁹ Dr. Shen had no set procedure, and palpated with either of his hands, whichever was closest to the wrist. I do not suggest this approach for anyone less experienced than he.

FINGER PLACEMENT

Longitudinal location

I advise against the method, recommended in the literature,¹⁰ of placing the middle finger on the styloid process. The position of the muscle-ligament attachments (abductor pollicis brevis) between the styloid process and the scaphoid bone varies considerably and is therefore not a reliable guide for finger placement. Instead, I recommend using the scaphoid bone as the guide so that one becomes accustomed to the essential maneuver of rolling the index finger distally for an accurate reading of the upper burner. Again, this is necessary because the qualities of the middle position expand and overflow into the distal position. Thus, when beginning the pulse-taking procedure, the index finger should be placed contiguous to the scaphoid bone. In this manner, the index finger can easily be rolled under the bone to access the distal position with the lateral side of the index finger.

With respect to the other fingers, the middle finger goes in the middle or second position on or near the radial styloid process and contiguous to the distal index finger, and the ring finger falls into place adjacent to the middle finger. In addition, I have found that by placing the thumb in an opposing manner against the ventral aspect of the patient’s hand at about LI-5 (*yang xi*) provides greater control, and enhances the capacity to access the subtleties of the pulse. Control is also augmented by using only the index finger, without touching the subject elsewhere with the hands, when searching for the Neuro-psychological, Mitral Valve, and radial Liver Engorgement positions.

If the subject is large, the practitioner’s fingers should be spread out slightly more. If the practitioner’s fingers are larger than the patient’s, the fingers should be somewhat more compressed. It should be remembered that the most sensitive part of the finger is the center of the small area between the nail and the flat pad of the finger.

Direction

The radial artery, which we palpate in our model of pulse diagnosis, runs and is explored longitudinally, from distal to proximal. The middle and proximal positions are examined in this direction. The distal positions, however, are explored horizontally, from lateral (radial) to medial (ulnar), along the radial edge of the index finger.

Depth and Level

DEPTH

Depth refers to the vertical dimensions of the pulse on the radial artery, from the ventral to the dorsal aspect. While we commonly speak of three depths as the principal vertical areas of inspection, there are actually eight.

FINGER PRESSURE AND THE THREE DEPTHS

The most common mistake in pulse-taking, which is taught in the schools and even done by many experienced practitioners, is the tendency to press too deeply, thus obliterating the true pulse. When the bone or tendon has been reached, the physiological value of Chinese pulse diagnosis has been significantly lost. At the other end of the

spectrum, many practitioners from the European schools press too lightly and never reach the organ depth, or even the blood depth, as defined in this system. The boundaries of the pulse in the Chinese model are exact and extremely subtle; the key to the depths of the pulse is in the fingers, wrist, and arm of the practitioner. It should be noted that the distance between the surface and the qi depth, and between the depths themselves, is perhaps less than one thirty-second of an inch. The greatest distance is between the skin and the qi depth, and between the organ depth and the bone. The only variation is weight dependent. With a heavy person the entire pulse (i.e., all three positions on both wrists) is normally slightly deeper; therefore, heavier pressure is applied to find the qi depth. With a thin person, the qi depth is accessed more superficially. The distances between the depths would, however, be constant under all circumstances.

It is a common error to assume that the qi depth is where one first feels the pulse, and to then access the other depths with that first encounter as a benchmark. The qi depth is not necessarily where the impulse is first found. In fact, the qi depth is at a predetermined pressure. If nothing is found there, the qi depth is Absent. If a pulse wave is felt before exerting that particular amount of pressure, then a Floating, Flooding Excess, or Hollow Full-Overflowing pulse is present, which is a sign of some disharmony. These degrees of pressure are a relatively impartial tool by which the patient's pulse is subject to an unbiased measurement, capable of objective comparison with every other person.

COMPLEMENTARY POSITIONS, QUALITIES, AND THE THREE DEPTHS

The three depths—qi, blood, and organ—do not apply to the twenty-two complementary or distal positions. In these positions one can discern deeper and more superficial sensations, but they do not correspond to qi, blood, and organ. The interpretation of qualities at the complementary positions (e.g., Tight = inflammation) also varies from that at the principal positions (Tight = yin deficiency).

The Special Lung position, Gallbladder, Stomach-Pylorus Extension, and Pelvis/Lower Body positions are best accessed by moving the finger up and down and distal to proximal, because the several different qualities one will find in these positions are found in different parts of the position, either superficial or deep and distal or proximal. Also, in the complementary positions, especially the Neuro-psychological and Mitral Valve positions, the qualities are sometimes ephemeral; one must therefore move around the position with a very light touch and/or wait.

LEVEL

Level refers to the horizontal dimensions of the radial artery, from the wrist toward the elbow. There are three levels: the upper burner, which is most distal, the lower burner, which is most proximal, and the middle burner, which is between the other two.

Middle position qualities

The pulse qualities of the middle burner (middle position) tend to dominate and overflow into the other positions, especially into the distal position. Partly this is due to anatomical considerations. The abdominal area represented by the middle position is much less confined than the chest (distal position), and somewhat less confined than the pelvis (proximal position). The qi in the middle burner is therefore anatomically freer to expand.

Partly this overflow from the middle position to the distal positions is due to the nature of the qi and blood in the organs of the middle burner. According to Dr. Shen, the qi in the middle right position and gas in the digestive lumen are equivalent. Gas,

he says, is the qi in the Stomach. Because qi is yang energy, it is expansive by nature. This is translated by the communication system between organs and areas to the pulse by the movement of the sensation in the right middle position, especially toward the right distal position, and to a much lesser extent to the right proximal position.

This natural tendency is exaggerated when the the qi in the Stomach and Intestines is stagnant, or expands further when there is heat from excess in this system. (The Inflated pulse quality is identified with this process.)

The middle position on the left side is associated with the Liver and Gallbladder. There are two aspects of Liver function which contribute to the tendency of the qualities of the middle positions to overflow, especially to the distal positions. The first is the Liver's function of spreading the qi throughout the body, which contributes to expansiveness of qi from the natural anatomical configuration of the abdomen and middle burner. Perhaps the most celebrated disharmony in Chinese medicine involves the inhibition of this continuous spreading process by a variety of etiologies, especially repression of emotion, particularly anger. When qi thereupon stagnates and is unable to flow freely through the body it will accumulate in the Liver; this will be expressed in the invasion of the distal positions (especially) by whatever qualities are present at that time in the middle burner. For example, depending upon the stage of the stagnation (see Chapter 11), we might feel Taut, Tense, or Tight qualities in the distal positions, which, upon examination, we find are simultaneously the same qualities at the left middle position.

The second aspect of Liver function that contributes to the overflow of the middle position pulse is that of storing the blood. When heat from excess in the Liver develops as it attempts to overcome qi stagnation, the blood stored in the Liver will expand, and the pulse will accordingly overflow (Hollow Full-Overflowing). Heat in the blood of the Liver thereby contributes to the tendency of the middle pulse position to fill a greater space than that occupied by the other two positions.

For these reasons it is necessary to roll the fingers distally from the conventional upper burner position in order to properly access the qualities in the upper burner.

Qualities

The classification of qualities is made according to sensation:

- Hardness or pliability is a function of yin.
- Force (strength or weakness) is a function of qi or yang.
- Width (narrow or wide) is a function of blood.

The degree of presence of a quality is measured on a scale of one to five, with five being the greatest degree and one the least.

Procedure

Before introducing the actual pulse-taking procedure, it should be noted that there are certain uniform or overall pulse qualities that may obscure or conceal other qualities, or make them more difficult to discern. Among these are the Robust Pounding, Uniformly Tense, very Rapid, very Slow, Muffled, Heavy Cotton, very Thin, Ropy, very Deep, Interrupted, and Intermittent pulses. The same is true of certain medications, stimulants (e.g., caffeine), and excessively calming substances (e.g., marijuana), as well as aerobic exercise, physical and emotional trauma, and heavy lifting. Less significantly, the pulse picture may be temporarily affected by overeating, and in a severely deficient person, by sexual activity.

Below is an outline of the methodology of pulse examination followed in this book. (See also Chapter 17 for elaboration.)

- **Broad focus**

Rhythm, rate at rest (after movement, tested only at the end of the examination), and the uniform qualities over the entire pulse (i.e., simultaneously at all three positions and depths on both sides)

- **Closer focus**

The three depths, the two sides, and the wave form

- **Closest focus**

The individual principal and complementary positions, and bilaterally at the three burners

Again, the pulse is accessed with the fingertips at the center of the small area between the nail and the flat pad of the finger. Exceptions to this rule are the Special Lung position, distal positions, the Neuro-psychological, Large Vessel, Mitral Valve, Diaphragm, medial and lateral Engorgement of the Liver, Gallbladder, Large and Small Intestine, Pelvis/Lower Body, and the Stomach-Pylorus Extension positions—all of which require rolling of the fingers. In addition:

- For the Special Lung position, use the flat part of the index finger.
- For the distal positions, use the radial side of the index finger, which is rolled under the scaphoid bone and then lightened up slightly to access the upper burner. Most important is to distinguish the impulse coming from the middle burner, which is felt on the ventral surface of the index finger, from the impulse coming from the upper burner, which is felt on the radial edge.
- For the Gallbladder and Stomach-Pylorus Extension positions, use the ulnar side of the middle finger.
- For the Pelvis/Lower Body position, use the ulnar side of the ring (fourth) finger.
- For the Neuro-psychological, Mitral Valve, Liver Radial Engorgement, and Special Lung positions, use one finger alone.

The description and interpretation of pulse characteristics in the sections below are highly abbreviated, and are intended only to provide an overview. A more comprehensive discussion of each aspect is presented in later chapters.

BROAD FOCUS

Gender and age

These are discussed in Chapter 3 and are the two single most important pieces of information, since qualities and conditions which are natural signs at certain ages are not at others. A Ropy quality at age eighty would not arouse the same concern as it would at age thirty. We have already alluded to the gender issue with regard to the width of the pulse. Weight and height are important because we would find it paradoxical for a large, heavy person to have a Thin and Superficial pulse, or a small, light person to have a very Wide and Deep pulse.

Rhythm and rate

TRUE ARRHYTHMIAS

The pulse-taking process is initiated by assessing the rate of the pulse on both wrists simultaneously in order to note irregularities in the rhythm or differences in the rate between the two sides. In terms of rhythm, these include Changes in Rate at Rest, and

the Interrupted and Intermittent qualities. Changes in Rate at Rest are a useful indicator of emotional instability.

With rate, the usual qualities are Normal, Rapid, or Slow in varying degrees. Sometimes the rate is indiscernible because the rhythm is too irregular. In the modern era, a Rapid or Slow rate is mostly indicative of Heart and circulatory function, and of emotional states, and far less often of heat or cold from excess.

At the end of the examination, the resting rate should be taken again, and then a final reading immediately after exertion, to observe whether the rate increases, remains the same, or decreases. To measure the rate on exertion, have the subject rotate their arm at the shoulder vigorously ten to fifteen times, then measure the rate for ten seconds and multiply by six. Substantial change in the rate between rest and exertion is significant with regard to Heart function (see Chapter 6). This should be repeated at least once to ensure accuracy.

PSEUDO-ARRHYTHMIAS AND AMPLITUDE

The Hesitant Wave, Change in Intensity and Amplitude, and Unstable qualities mimic true arrhythmias (see Chapter 6).

Uniform qualities over the entire pulse

The next step is to obtain a quick impression of other qualities that are uniform over the entire pulse or just on one side. This initial overall impression is made while taking the pulse on both wrists simultaneously. The purpose here is to get a sense of the qualities that are uniform over the entire pulse (all three positions on both sides) and on other large segments of the pulse, such as the three burners, and over each wrist. These have special significance to the diagnosis which is different than when the same qualities are found in only one position (see Chapter 13). Among the questions we should ask when examining the entire pulse: Is it Deep, Normal, or Superficial? Is it Thin or Wide, Pounding with or without spirit and force (Robust or Reduced)? Is it resilient or easily compressible, continuous or fragmented (Long, Scattered, or Short)? Or is it Feeble-Absent, Empty or Hollow Full-Overflowing, or balanced or unbalanced between the three depths and six positions?

In asking these questions, we are partially assessing the person and their condition in terms of excess and deficiency. With deficiency the concern is whether it is of qi, blood, or yin, whether the person is still able to maintain a semblance of function, and which systems are more or less capable of contributing to this function. With excess the concern is its extent and whether we are dealing with heat, cold, dampness, or qi stagnation, either alone or in some combination.

In answering these questions, we are attempting the important task of differentiating the big picture (the entire pulse) from the small picture (the individual positions) in terms of diagnosis.

Qualities found uniformly over the pulse include the following: Floating, Tense, Tight, Pounding, Thin, Cotton, Deep, Smooth and Rough Vibration, Slippery, Reduced Substance, Ropy, Muffled, Spreading, Change in Intensity, Amplitude, or Qualities, Blood Heat, Blood Unclear, Blood Thick, Hollow Full-Overflowing, Suppressed, Flooding Excess, Flooding Deficient and Hesitant Wave.

Iatrogenic-related qualities

Pharmaceuticals can affect the pulse in a variety of ways. As an example, some commonly used diuretics cause a flattening of the very top of the Normal wave, as if the wave is about to fully hit the finger and just stops short of the totality of the surge. This

is a Suppressed quality. Some cardiac and antihypertensive medications cause the Robust Pounding quality at the organ depth (due usually to heat from excess) to diminish quickly at the blood and qi depths. Steroids usually cause the pulse to become Slippery. Anti-depressants reduce or eliminate the Cotton quality, and I have heard of the Muffled quality associated with anti-psychotic drugs.

STABILITY OR INSTABILITY

A general impression is obtained of Changes in Qualities, Amplitude, and Intensity. Wherever there are large Changes in Qualities and Amplitude over the entire pulse, the integrity of qi is usually highly compromised by chaos ('qi wild' or circulation out of control) with often precarious emotional states. Consistent Changes in Intensity are related to the Heart and circulation. Inconsistent changes in Intensity are associated with Liver qi stagnation, which is easily affected by daily stresses.

WIDTH AND HARDNESS

While a pulse quality is naturally comparable from one person to another, the same quality can also vary slightly from one person to another. For example, as previously mentioned, the evaluation of the hardness or pliability of qualities must be made with an overall allowance for the general width (breadth) of the individual pulse. Pulse qualities are, in a sense, most productively evaluated within the context of an individual's own energetic gestalt. It should also be remembered that women's pulses are generally thinner than men's. Normally the organ depth has the greatest width and substance, decreasing steadily as one releases finger pressure to the blood and qi depths and above.

CLOSER FOCUS

Wave form

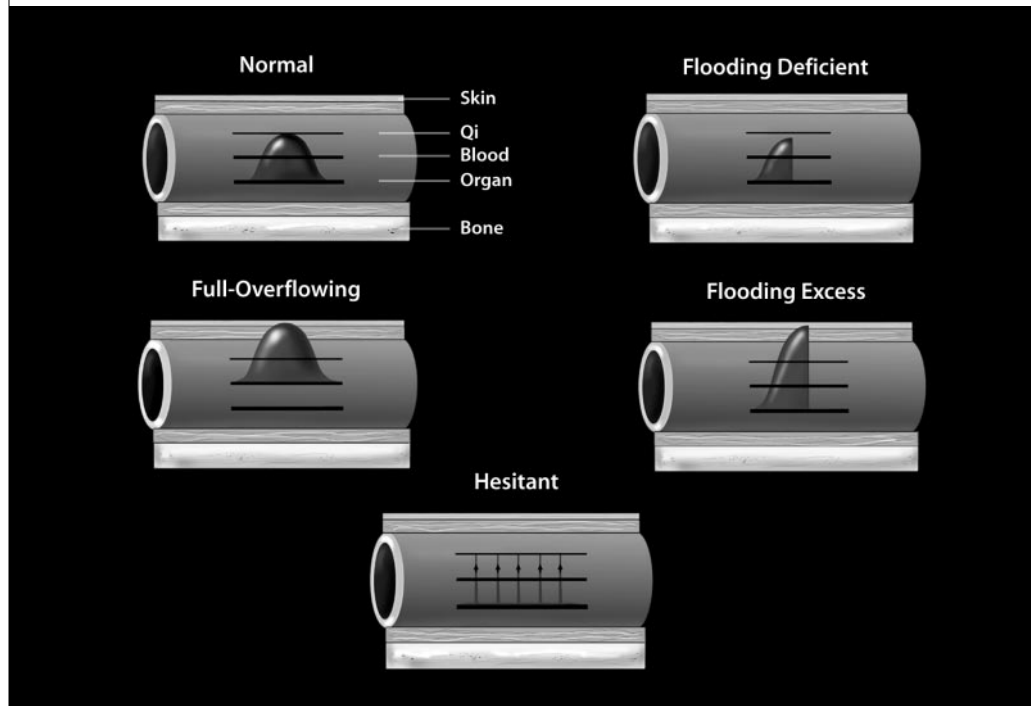
The Normal wave form resembles a sine or bell curve which stays between the organ and qi depths. Unusual wave forms include the Hollow Full-Overflowing, Flooding-Excess, and Flooding-Deficient qualities, the Suppressed quality, and the Hesitant quality. The Hollow Full-Overflowing quality has the correct shape but exceeds the qi depth. (See Fig. 4-2.)

Uniform qualities on the two sides

The large segments of the pulse are assessed to identify uniform qualities on each side separately. For example, is one side in all three positions Feeble, Tight, or Slippery? These findings are clinically significant and are detailed in Chapter 14.

UNIFORM LEFT SIDE

The most common uniform qualities to be found on the left side are Tense, Tight, Yielding, Spreading, Diffuse, Reduced Substance, Vibration, Deep, Feeble, Hollow, Hollow Full-Overflowing, Slippery, Change in Intensity, and Cotton. A slightly Feeble Deep quality with a Thin Tight quality at the pulse's most superficial aspect is found when the 'nervous system' affects the 'organ system.' When moderate, persistent worry is the etiology, superficial Smooth Vibration is found over the entire left side. Rough Vibration on the left side only is a sign of parenchymal damage to the vital yin organs.

Fig. 4-2 Wave comparisons

UNIFORM RIGHT SIDE

The common qualities found uniformly on the right side are Tense, Tight, Yielding, Reduced Substance, Deep, Feeble, and Cotton. A Slippery quality is also encountered uniformly, but much less often. A Thin Tight quality at the pulse's most superficial aspect is found when a person eats too quickly.

INTENSITY ALTERNATING BETWEEN SIDES

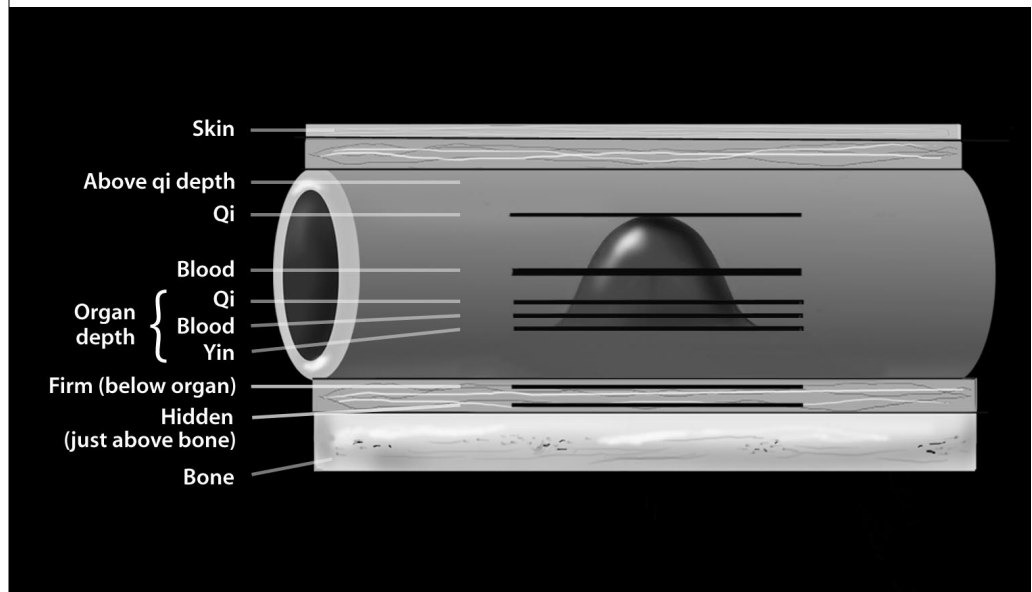
When palpating both left and right radial arteries simultaneously the intensity may seem at first to increase on one side and diminish on the other, and then reverse. This is associated most often with a current, significant interpersonal conflict, and less often with a situation in which the person has worked or exercised beyond their capacity for a period of weeks prior to the examination.

QUALITIES ALTERNATING BETWEEN SIDES

When the qualities on the left and right sides switch places throughout the examination, this is a sign of the separation of yin and yang and a serious 'qi wild' condition (see Chapter 6).

Depths

As previously mentioned, there are actually eight depths in our system (Fig. 4-3). There is an above-the-qi depth between the skin and the qi depth; the qi depth; and the organ depth, which can be subdivided into three: between the organ depth and the bone (Firm quality) and just above the bone (Hidden quality). Whereas the qi and blood depths involve the contribution of a particular yin organ to the total organism of qi and blood, the organ depth is again divided into qi, blood, and organ informing us respectively of the state of the qi, the blood, and the parenchyma of that organ. The full use of this division of the organ depth is being explored.

Fig. 4-3 The eight depths

Ordinarily the organ depth is the widest and most tangibly substantial part of the pulse. As pressure is released on the pulse toward the surface, the pulse becomes less wide with less substance. The lightest sensation is closer to the surface at the qi depth, and the heaviest sensation is deeper at the organ depth.

The exact positions of the three depths are very subtle; they can only be demonstrated, and cannot be precisely conveyed by language alone. The distance between the depths is only about a tenth of a millimeter, and is accessed by very small increases or decreases in pressure from the wrists—and therefore the fingers—of the practitioner on the pulse. The movement is all in the wrists. The distance from the skin to the qi depth is about one-third greater than the distance from the qi to the blood depth, and the blood to the organ depth. The qi depth is below the surface at a precise point, and the organ depth is well above the bone at another precise point. The blood depth is half way between the two.

In other words, locating each depth depends upon the precise positioning of the practitioner's wrist, and not simply where the practitioner happens to first encounter the vessel. For example, by learning to 'calibrate' our wrist movements we can tell when a particular pulse quality is *absent* from the qi, blood, or organ depth. The entire system described in this book depends on mastering this tool, one which we carry with us wherever we go, and which opens up to us all the complexities which make taking the pulse such a valuable diagnostic skill.

Remember that the three depths—qi, blood, and organ—do not apply to the complementary positions or the distal positions. Although one can discern deeper and more superficial sensations in these positions, they do not correspond to the qi, blood, and organ depths.

Changes in Intensity or Qualities affect all of the depths that are present either over the entire pulse or at an individual position.

ABOVE THE QI DEPTH

The qualities found above the qi depth are Floating, Flooding Excess, Hollow Full-Overflowing, and, most often, Cotton.

QI DEPTH

All three positions are palpated with all three fingers, checking for the presence or absence of qualities at the qi depth. The most common qualities are Taut, Tense, Tight, Thin, Yielding, Diminished or Reduced Substance, Absent, Slippery, and Smooth Vibration.

BLOOD DEPTH

The blood depth is often indiscernible when it is free of problems. In palpating the blood depth, it is patterns of deficiency and excess that are being assessed. Deficiency is felt by gradually increasing pressure to the blood depth to observe if there is a Spreading quality, diminution, or absence of sensation. If the qi depth is intact and the blood depth separates or disappears under pressure, and the organ depth is clearly felt upon further pressure, this phenomenon is regarded as a Hollow quality. If the qi depth is present and the organ depth spreads apart under pressure, or is not clearly felt, the quality is Empty. If the qi depth is Absent and the blood depth is Spreading, there is deficiency of both qi and blood. If both the qi and blood depths are Absent and the organ depth is present, the qi and blood deficiency is even greater; a Thin quality indicates that the blood deficiency is greater still.

A pattern of excess in the blood is assessed by compressing the pulse to the organ depth to check for its presence and quality, and then gradually releasing toward the surface. Normally the pulse diminishes in size and strength as pressure is released. If the pulse fills out in the blood depth, and then diminishes at the qi depth, a disharmony (and pulse quality) such as Blood Unclear or Blood Heat is present. If the substance of the pulse does not diminish as pressure is released toward the qi depth, the condition (and pulse) is regarded as Blood Thick, and if the pulse increases in substance above the qi depth, the quality is Hollow Full-Overflowing. Other qualities which often accompany Blood Heat or Blood Thick are Slippery and Rough Vibration (see Chapter 13) at the blood depth.

ORGAN DEPTH

At the organ depth the pulse should normally have the greatest substance and present the greatest resistance. It represents the cardinal functional, and especially the material, aspect of the yin organs. It is explored for all of the qualities described in the section on organ depth in Chapter 13. The principal qualities found uniformly at the organ depth are Taut, Tense, Tight, Thin, Diffuse, Reduced Substance, Feeble-Absent, Slippery, Pounding, Rough Vibration, Separating, and Empty.

Within the organ depth, through a careful sense of touch, one can find a qi, blood, and more material yin layer, which I equate with the biomedical concept of parenchyma. Here, we are passing from the energetic to the material side of the equation. It is worth reiterating that qi, blood, and yin deficiency at the qi and blood depths are on a physiological continuum with the more profound organ deficiencies.

BELOW THE ORGAN DEPTH

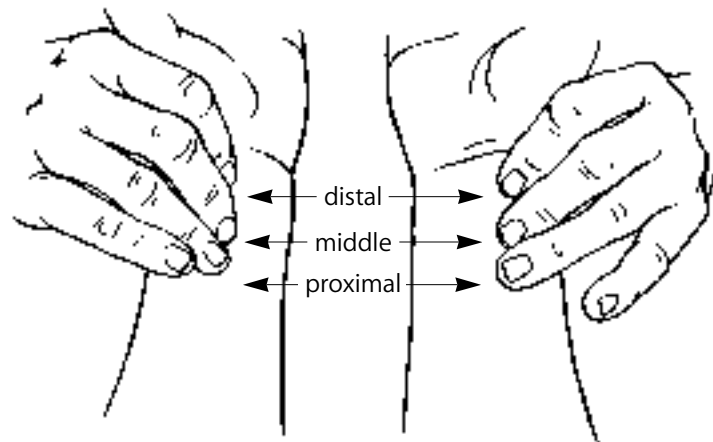
While Dr. Shen limited his pulse model to what is found from under the skin to the organ depth, the literature mentions the Firm quality between what we call the organ depth and the bone, and a Hidden quality just above the bone. I felt the Hidden quality once in a person suffering from severe hypothermia, not commonly encountered nowadays in the average acupuncture practice. This subject is complicated by Dr. Shen's use in his book of the term Hidden for what we call Deep. (I have confirmed that this is what he meant.)

CLOSEST FOCUS

Principal and complementary individual positions

Having gained a sense of the larger picture, the individual positions are now palpated with the appropriate finger at all three depths, in the manner described above for the entire pulse. Accessing all three depths is more difficult in the confined distal positions, and irrelevant in all of the complementary positions, although the quality of each of these positions can vary with pressure (see Chapter 11).

Note: in the illustrations that follow, heavy arrows indicate the correct finger for accessing the indicated position, and lighter arrows indicate the direction for rolling the finger.

Fig. 4-4 Both hands

LEFT PRINCIPAL AND COMPLEMENTARY POSITIONS

Left Special Lung position

First to be palpated is the left Special Lung position, which is accessed with the flat pad of the right index finger, searching lightly for the unpredictable small branch of the radial artery; this branch is found medial to the radial artery, somewhere between LU-9 (*tai yuan*) and PC-7 (*da ling*). The qualities found in this position are Tense, Tight, Wiry, Thin, Slippery, Vibration, Floating, Inflated, Muffled, Restricted, Change in Intensity, and Absent. The left Special Lung position reveals the status of the material right lung (and simultaneously the location of disharmony in the energetic right Lung) including the

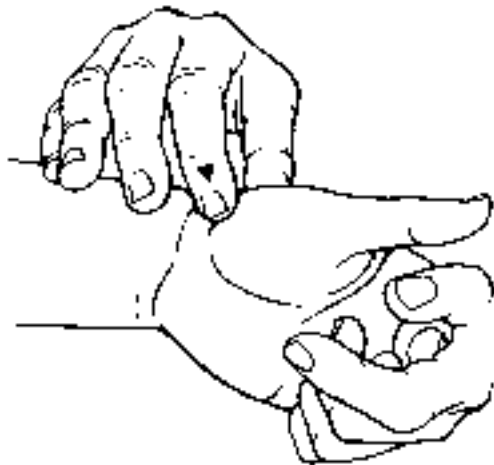
Fig. 4-5 Left Special Lung position

medial, lateral, upper, and lower aspects, each of which can be accessed by rolling the finger in the appropriate direction (see Fig. 2-2 in Chapter 2).

Left Neuro-psychological position

The left Neuro-psychological position is found in, on, or around a truncated depression located on the trapezium bone just distal to the principal left distal position. The qualities found in this position are usually either Vibration or an undifferentiated sensory presence which I call Doughy. The Vibration pulse is more often associated with fright and Heart shock, and the undifferentiated or Doughy quality with neurological problems, including headache. Change in Intensity, Tight, Muffled, and Choppy qualities have also been reported here. The qualities in this position are often ephemeral, will move from one to another part of the position, and are very subtle. Understanding the full significance of the qualities in this position requires considerably more investigation.

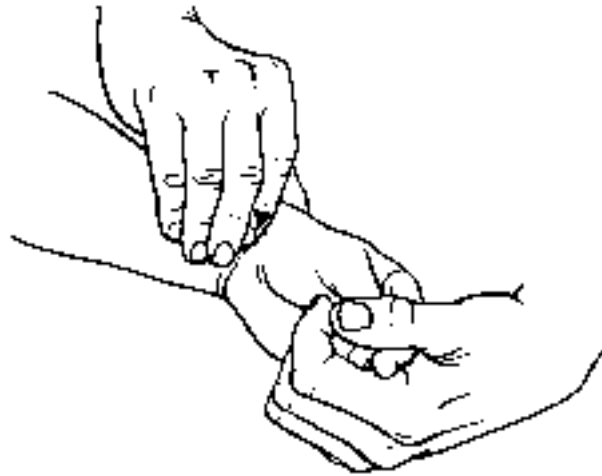
Fig. 4-6 Left Neuro-psychological position



Left distal, Pericardium, and Large Vessel positions

Next, the left distal position is palpated by rolling the most proximal section of the radial side of the right index finger under the scaphoid bone. It is necessary to raise and rotate the entire right arm in order to get the index finger in the proper position to access the information emanating from under the scaphoid bone. Once in position, one must lighten the touch so as not to obliterate the pulse. Concentration is required to distinguish the different sensations arriving at each aspect of the finger. The goal is to distinguish the sensation coming to the radial side of the right index finger from the sensation coming from the proximal-to-distal direction. I have found it useful to facilitate access to the distal positions by holding the patient's hand with my free hand and slightly bending their wrist ventrally.

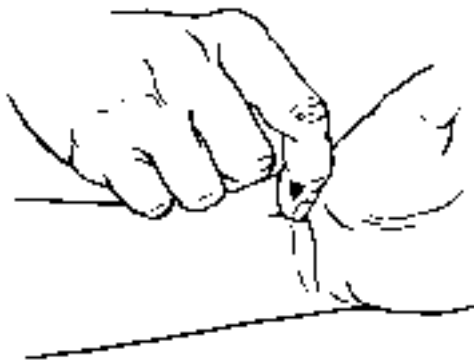
In order to avoid the sensory overlap of the middle burner into the distal aspects of the pulse, the distal positions are not accessed in the distal-proximal axis along the radial artery, as are the proximal and medial positions. Rather, they are accessed horizontally, along a radial-ulnar, medial-lateral axis just under the scaphoid bone, to which position one has rolled the radial edge of the index finger. Here we are not accessing the radial artery, but rather the fluid dynamics of its sudden breakdown into many smaller arteries, which sets up a wave informing us about the physiological integrity of the heart.

Fig. 4-7 Left distal position

The qualities most often found at the left distal position are Tense, Tight, Thin, Flat, Inflated, Feeble-Absent, Vibration, Slippery, Muffled, as well as Change in Intensity, Change in Qualities, and Change in Amplitude. The Hollow Full-Overflowing, Floating, Wiry, and Choppy qualities are less commonly encountered.

While still in the left distal position, another distinct quality in the central Pericardium position is ascertained by rolling the edge of the index finger from the lateral to the medial aspect of the left distal position and back again, from medial to lateral. The Tight quality is by far the most commonly found in the Pericardium position, and is sometimes accompanied by Slipperiness.

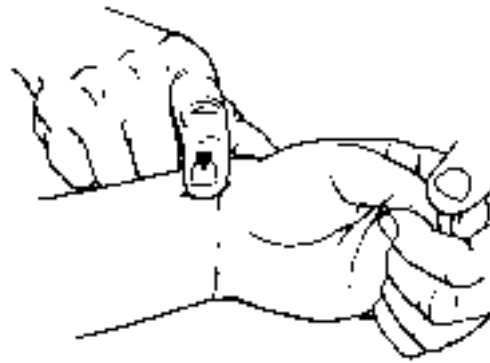
The Large Vessel position is also accessed by rolling the index finger medially toward the ulna. At the intersection of the tendon of the flexor carpi radialis and the scaphoid bone is a hole or cave-like place that is palpated by the lateral distal edge of the index finger. This hole is sometimes occupied by either an Inflated (indicating aneurysm) or a Tense-Tight Hollow Full-Overflowing quality (indicating hypertension).

Fig. 4-8 Large Vessel position

Mitral Valve position

With an especially light touch, the Mitral Valve is accessed laterally on the muscle-ligament connecting the styloid process and the scaphoid bone. The most common qualities found are Vibration and Slipperiness. Like the Neuro-psychological position, the qualities here are ephemeral, subtle, and sometimes moving around the position.

Fig. 4-9 Mitral Valve position



Left Diaphragm, Heart Enlarged, and distal Liver Engorgement positions

With a very light touch, the Diaphragm position is evaluated by rolling the index finger proximally toward the middle position, and then the middle finger from the middle position distally toward the distal position. The point here is to note whether or not the fingers sense an Inflated quality—as if the fingers are going uphill. If the Inflated quality is felt to come from both directions, qi stagnation is present in the left Diaphragm area.

Fig. 4-10 Heart Enlargement position

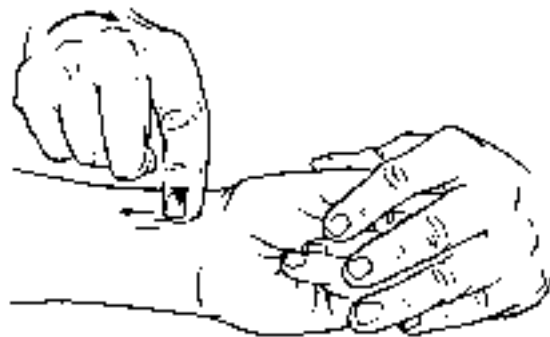
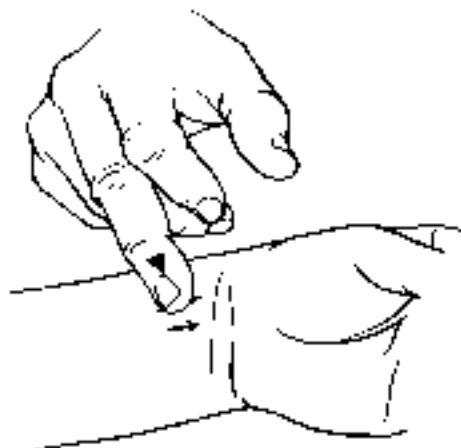


Fig. 4-11 Distal Liver Engorgement position



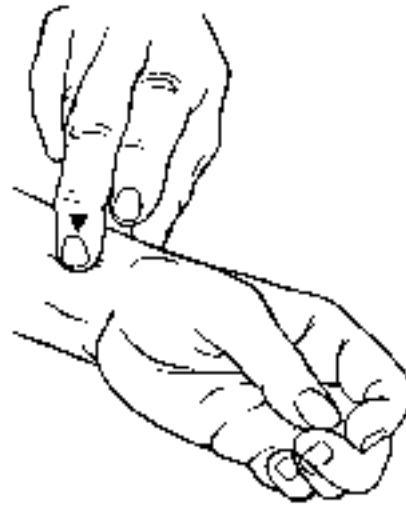
The presence of Heart Enlarged (the condition and its associated pulse) is discernible when the distal aspect of the left Diaphragm position is either more Inflated or Rougher than the proximal aspect.¹¹ The presence of distal engorgement of the Liver is discernible when the middle aspect of the left Diaphragm position is either more Inflated or Rougher than the distal aspect.

Left middle position

PRINCIPAL LEFT MIDDLE POSITION

With the right middle finger placed next to the index finger, the middle position is evaluated at all three depths. The most common qualities and conditions found here are Taut, Tense, Tight, Wiry, Thin, Pounding, Blood Unclear, Blood Heat, Blood Thick, Hollow Full-Overflowing, Deep, Feeble, Empty, Hollow, Slippery, Vibration, Diffuse, and Reduced Substance, as well as Changes in Qualities and Intensity.

Fig. 4-12 Left middle position



LATERAL AND MEDIAL ENGORGEMENT OF THE LIVER

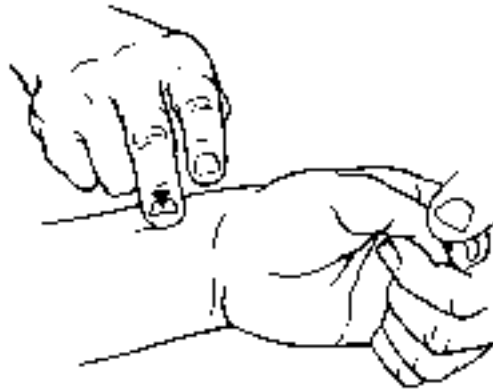
Next, the fingers are rolled medially toward the ulna to palpate very superficially for medial Liver engorgement. This is felt superficially with the portion of the middle finger closest to the nail and is a very superficial Inflated quality between the artery and the flexor carpal radialis tendon.

Fig. 4-13 Liver Ulnar Engorgement position



Thereafter, the middle finger is rolled laterally toward the radius to palpate for lateral engorgement of the Liver. This position is felt with the flat area of the middle finger between the end and the first distal interphalangeal joint of the finger. It is usually a thin, hard, or vibrating line, almost on the radial bone.

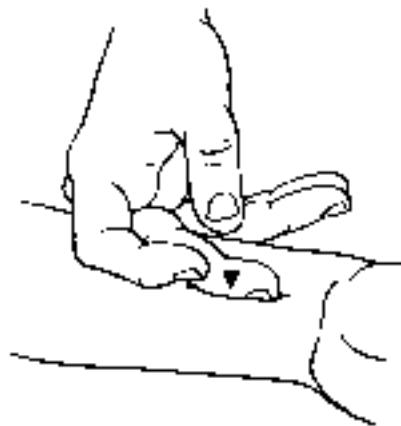
Fig. 4-14 Liver Radial Engorgement position



GALLBLADDER POSITION

Finally, the right middle finger is laid proximally from the left middle position along and on top of the artery seeking the Gallbladder position, with the ulnar (lateral) side of the middle finger around the first phalangeal distal joint. It is also sometimes necessary to roll the finger medially to find the Gallbladder position. The most common qualities here are Tense, Tight, Wiry, Inflated, Slippery, Choppy, Muffled, and Change in Intensity.

Fig. 4-15 Gallbladder position



Left proximal position

The left proximal position is evaluated by placing the ring finger adjacent to the middle finger.

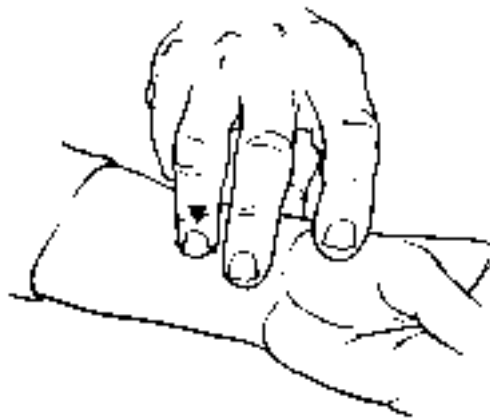
PRINCIPAL LEFT PROXIMAL POSITION

It is sometimes necessary to roll the fingers slightly medially to locate this position. Frequently found qualities here are Tense, Tight, Wiry, Reduced Substance, Deep, Feeble-

Absent, as well as Changes in Qualities, Amplitude, and Intensity. Less frequently encountered are Yielding Partially Hollow, Hollow, Hollow Full-Overflowing, Pounding, Flooding Excess, Slippery, and Choppy.

The harder qualities (e.g., Tight) suggest Kidney yin deficiency, while the more pliable ones (e.g., Feeble-Absent, and Changes in Qualities) suggest Kidney qi and yang deficiency. The harder qualities tend to override the pliable ones such that yin deficiency can mask concurrent qi and yang deficiency, though often one finds signs of both as the qualities shift back and forth. The excess qualities (e.g., Flooding Excess, Pounding) indicate fulminating acute infection of the intestines or pelvic organs. A Wiry quality can be a sign of severe pain, often menstrual, often in conjunction with the Choppy quality. The Wiry quality is also associated with early diabetes and/or hypertension.

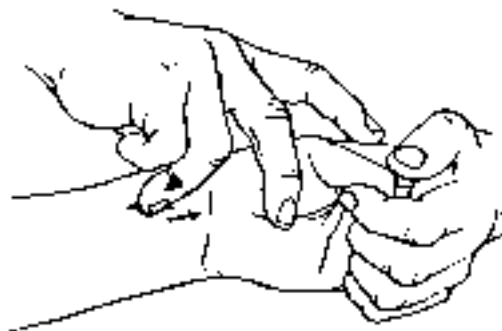
Fig. 4-16 Left proximal position



LARGE INTESTINE POSITION

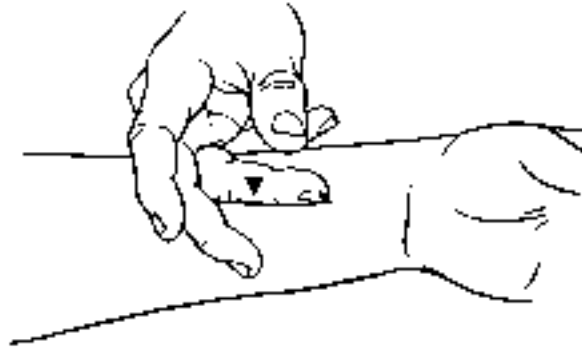
The right ring finger is then rolled distally to find the Large Intestine position with the radial edge of the finger tip. The most frequent qualities encountered here are Tense, Tight, Slippery, Biting, and Muffled. Vibration, Changes in Intensity, and Choppy qualities are also occasionally found. Often the proximal positions are also Tense and Tight. To distinguish the presence of the Large Intestine, one's attention is drawn to the quality of Tenseness to note a subtle change, since a Tense or Tight quality can feel more focused, Robust, and Biting in an Intestinal position than in a proximal position.

Fig. 4-17 Large Intestine position

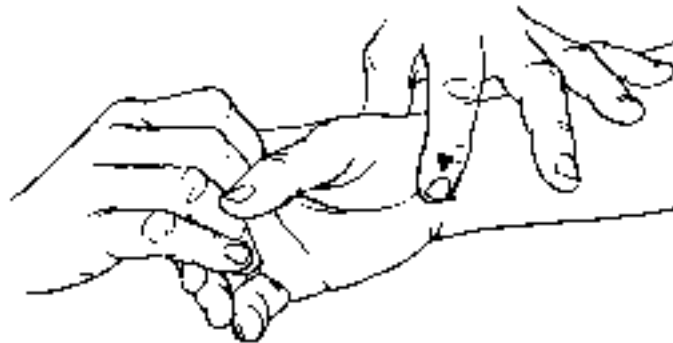


Left Pelvis/Lower Body position

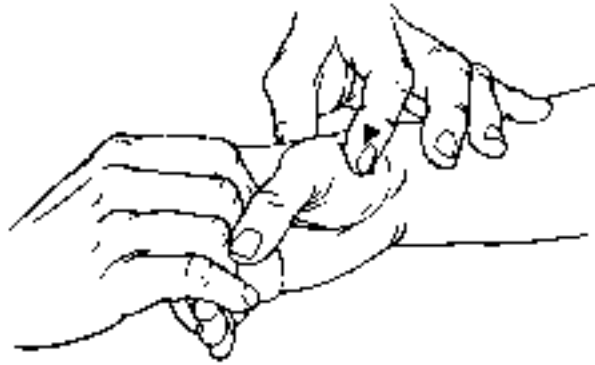
The left Pelvis/Lower Body position is palpated by laying the right ring finger along the artery in a proximal and slightly medial direction; the area of the finger that is actually used is closer to the distal phalangeal joint. The qualities that are often found here are Tense, Tight, Slippery, Muffled, Choppy, and Change in Intensity.

Fig. 4-18 Left Pelvis/Lower Body position**RIGHT PRINCIPAL AND COMPLEMENTARY POSITIONS****Right Special Lung position**

On the right wrist, first to be palpated is the Special Lung position, which is found the same way as that on the left, but using the flat pad of the left index finger. The right Special Lung position reveals the status of the material left lung (and simultaneously the location of disharmony in the energetic left Lung), including the medial, lateral, upper, and lower aspects, each of which can be accessed by rolling the finger in the appropriate direction.

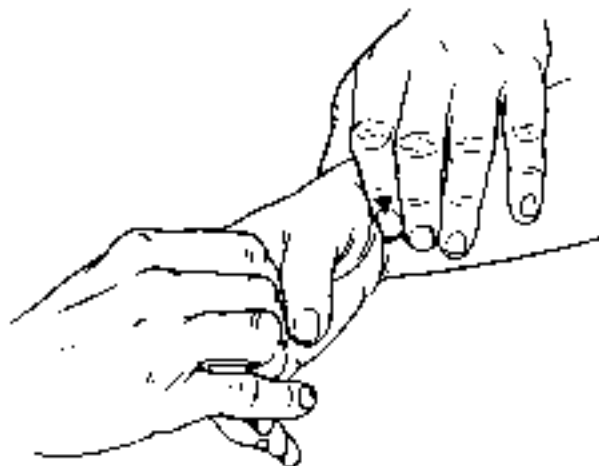
Fig. 4-19 Right Special Lung position**Right Neuro-psychological position**

The right Neuro-psychological position is accessed in the same manner as the corresponding position on the left wrist, with the qualities and interpretation likewise being the same.

Fig. 4-20 Right Neuro-psychological position**Right distal (regular Lung) position**

To locate the right distal position, the entire left arm of the examiner must be raised, and the distal section of the left index finger rolled distally toward and slightly under the left scaphoid bone; the pulse is accessed with the radial side of the index finger, rather than the flat pad. Again, once in place, one must lighten the touch so as not to obliterate the pulse. I have found it useful to facilitate access to the distal positions by holding the patient's hand with my free hand and slightly bending their wrist ventrally.

As with the left distal position, in order to avoid the sensory overlap of the medial into the distal aspects of the pulse, the right distal position is not accessed in the distal-proximal axis along the radial artery, as are the proximal and medial positions. Rather, it is accessed horizontally, along a radial-ulnar, medial-lateral axis just under the scaphoid bone, to which position one has rolled the radial edge of the index finger. Here we are not accessing the radial artery, but rather the fluid dynamics of its sudden breakdown into many smaller arteries, which sets up a wave informing us about the physiological integrity of the Heart and Lungs.

Fig. 4-21 Right distal position

The most common qualities found in this position are Tense, Inflated, Tight, Wiry, Slippery, Vibration, Floating, Muffled, Feeble, Absent, and Change in Intensity. If the Dead quality is encountered, it is usually associated with cancer of the lung.

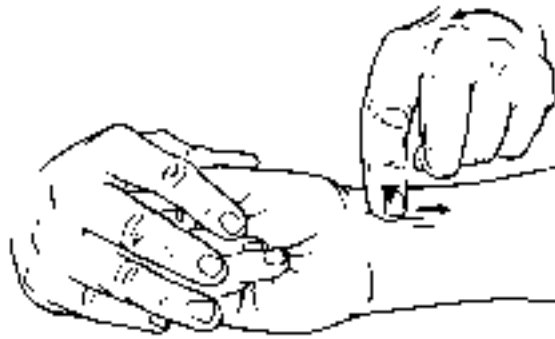
The right distal position can be used to locate the different lobes of the material left lung, and simultaneously the location of disharmony in the energetic left Lung. However, in my experience this is accomplished more readily and accurately using the Special Lung position, as shown in Figs. 2-2, 2-3, and 2-4 (Chapter 2).

Right Diaphragm, Pleura, and Esophagus positions

Again, with a light touch, the Diaphragm position is evaluated by rolling the index finger proximally toward the middle position, and then the middle finger distally toward the distal position. The goal is to determine whether or not the fingers sense an Inflated quality, as if the fingers are going uphill. If the Inflated quality is felt coming from both directions, qi stagnation is present in the right diaphragmatic area.

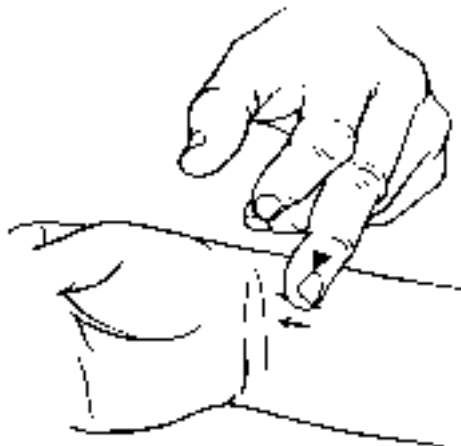
The presence of a pleural pathology is discernible when the distal aspect of the right Diaphragm position is either more Inflated or Rougher than the proximal aspect.

Fig. 4-22 Pleura position



The presence of esophageal qi stagnation is discernible when the proximal aspect of the right Diaphragm position is either more Inflated or Rougher than the distal aspect. A Slippery quality instead of a Rough quality is a sign of esophageal food stagnation.

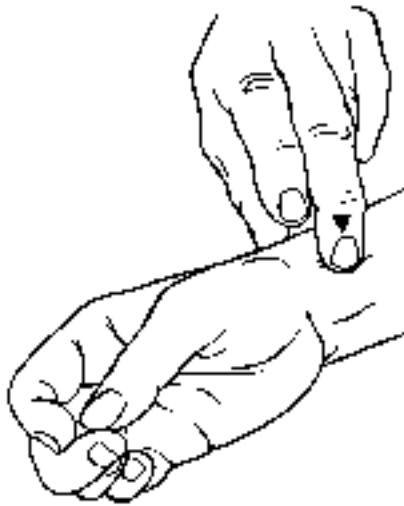
Fig. 4-23 Esophagus position



Right middle position**PRINCIPAL RIGHT MIDDLE POSITION**

The harder qualities here, such as Tense and Tight, as well as Robust Pounding, are indications of Stomach heat from excess and deficiency, respectively. Another quality commonly found in the Stomach position is Inflated (indicating gas and qi stagnation), and rarely, Hollow and Slippery (both associated with gastritis and ulcers).

The more pliable qualities in this position, such as Spreading, Deep, Reduced Substance, Feeble-Absent, and Empty, are indications of Spleen qi deficiency. When Spleen qi deficiency and Stomach heat coexist, the Stomach heat impulse is felt more in the lateral-central part of the position, while Spleen qi deficiency is accessed on the more medial Spleen position, described below. Sometimes, simultaneous Spleen qi deficiency and Stomach heat are also indicated by a Change in Quality from Tense or Tight to Feeble, Absent, or Empty.

Fig. 4-24 Right middle position**SPLEEN POSITION**

On the right middle position, the middle finger is rolled medially and superficially toward the ulna to access the Spleen position, searching for a very superficial Inflated

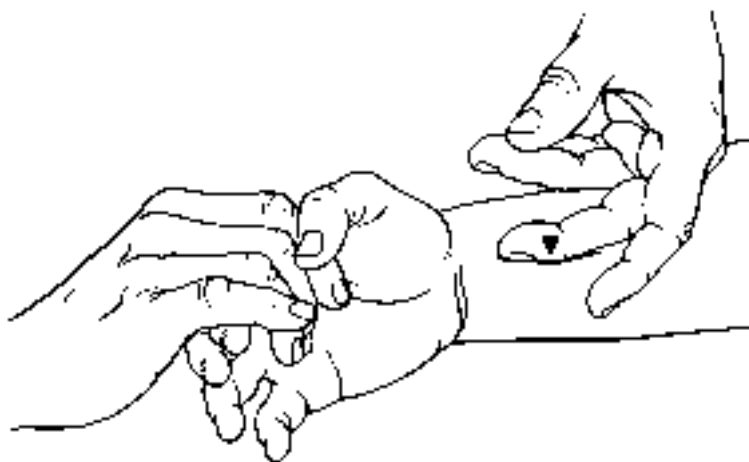
Fig. 4-25 Spleen position

quality between the vessel and the flexor carpi radialis.

STOMACH-PYLORUS EXTENSION AND DUODENUM POSITIONS

The Stomach-Pylorus Extension position is palpated at approximately the first phalangeal joint by laying the left middle finger along the artery in the proximal direction from the right middle position, and rolling somewhat medially. In this position, the goal is to sense a change in quality from the principal position. Frequently found qualities are Inflated (with extreme Spleen qi deficiency), Tight, Choppy, Biting, and sometimes Hollow and Slippery, when an ulcer is present.

Fig. 4-26 Stomach-Pylorus Extension position



Pathology in the duodenum is reflected when the quality in the Stomach-Pylorus Extension position and in the Small Intestine position (see below) are the same, often Tight and/or Slippery, indicating a duodenal ulcer and/or energetic disharmony in this area. An Inflated quality here signifies a less severe energetic and physical pathology.

PERITONEAL POSITION

When both the Ulnar Engorgement position and Spleen positions are present, usually Inflated, it was Dr. Shen's contention that there was a problem in the abdominal, or more technically speaking, the peritoneal cavity. Most often this involved the pancreas, with either inflammation or tumor, less often with depleted enzymatic activity, and never involving its endocrine function (insulin). However, other kinds of tumors in the cavity (including the intestines), ascites, and more rarely trauma had to be considered.

Right proximal position

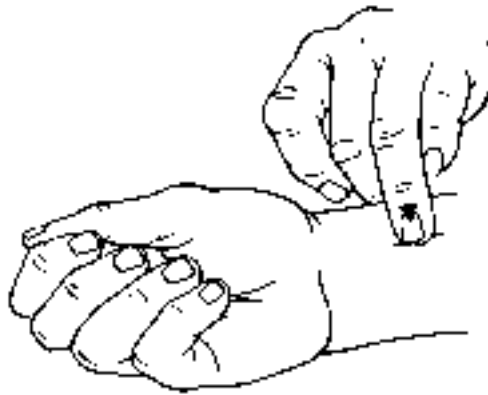
PRINCIPAL RIGHT PROXIMAL POSITION (BLADDER POSITION)

According to Dr. Shen, the health of the Bladder is reflected in the center of this position. I have found this to be true only when there is pathology in the Bladder, Small Intestine, or pelvic organs. Otherwise, I consider this position to represent Kidney yang, manifested by the more pliable qualities (Feeble-Absent or Changing). At the other end of the spectrum, severe Kidney yin deficiency can also manifest here, as on the left prox-

imal position, with the harder qualities of Tight or Wiry, with Wiry indicative of pain, frequently menstrual.

The commonly found qualities in this position are Tense, Tight, Wiry, Deep, Reduced Substance, Feeble-Absent, as well as Changes in Qualities, Amplitude, and Intensity. The Pounding, Flooding-Excess, Slippery, and Choppy qualities are less frequently encountered. The qualities of excess (Flooding-Excess and Pounding) indicate acute and fulminating infection of the intestines or pelvic organs.

Fig. 4-27 Right proximal position



SMALL INTESTINE POSITION

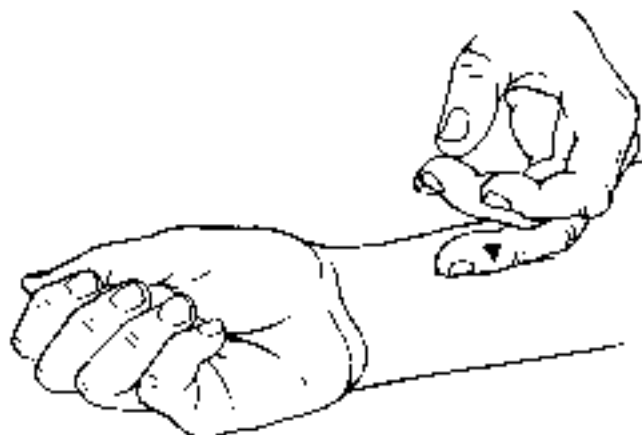
The Small Intestine position is accessed on the right proximal position by rolling the ring finger distally toward the right middle position. The usual qualities found here are Tense, Tight, Biting, Slippery, and Muffled. Vibration and Choppy qualities are also sometimes encountered.

Fig. 4-28 Small Intestine position



Right Pelvis/Lower Body position

The right Pelvis/Lower Body position is palpated in the same way as the corresponding position on the left side, except that the practitioner uses the left ring finger. As on the left wrist, qualities frequently found here are Tense, Tight, Slippery, Muffled, Change in Intensity, and Choppy.

Fig. 4-29 Right Pelvis/Lower Body position

SIMILAR QUALITIES FOUND BILATERALLY AT THE SAME POSITION (BURNER)

The simultaneous appearance of the same quality at one position (burner) on both sides has a special significance, detailed in Chapter 14 and in Table 14-1. Some of the more common qualities found bilaterally are Floating, Cotton, Hollow Full-Overflowing, Inflated, Flat, Tense, Tight, Wiry, Slippery, Thin, Feeble-Absent, Empty, Hollow, and Vibration.

MUSCULOSKELETAL POSITIONS

I have observed that the Contemporary Chinese Pulse Diagnosis system emphasizes the organs. However, by rolling the fingers to the radial side of the area between the burners, one can detect musculoskeletal disorders. I have tended to ignore these positions while teaching, since patients usually tell the practitioner if something hurts.

The pulse is usually very Tight when there is musculoskeletal pathology. The Tight quality in these positions is also a sign of pain. Above the radial to the distal positions we can access the neck. Radial to the area between the distal and middle positions we can access the shoulder girdle. Radial to the area between the middle and proximal positions we access the hip, and radial to the area between the proximal and Pelvis/Lower Body positions we can access the knees.

RATE ON EXERTION

At the end of the examination the patient is asked to rotate one arm at the shoulder vigorously, immediately after which one takes the rate for 10 seconds and then multiplies this figure by six to get the rate on exertion. It is necessary to do this for only 10 seconds because after this the pulse quickly returns to its normal rate. I sometimes have two people do this and take the average, because the measurement can so easily be off by one or two beats, which amounts to six to 12 beats per minute when multiplied by six.

A REMINDER

The information gathered from the larger picture is, with rare exception, the pattern that must be dealt with first in the course of treatment if the therapy is to have lasting significance. Again, this larger picture includes the rhythm and rate, the qualities that are common or uniform over the large segments, the three depths, and the question of balance and chaos. For the best therapeutic results, I cannot overemphasize the importance of training oneself to approach pulse diagnosis in this manner.

The Learning Process

Learning pulse diagnosis at this level of complexity and subtlety is a slow process. For the beginner in Chinese medicine, as well as the experienced practitioner, it involves a series of advances and “aha!” experiences, interspersed with deflation, as new perplexities and questions are encountered. This is the normal learning progression during which the skill and material are absorbed in an organic manner, and which later become an integral part of the practitioner. It is an analog and not a digital process.

For the experienced clinician, I advise studying this methodology slowly, so that the rhythm of a successful practice is not interrupted. This is best accomplished by setting aside time, either by oneself or with colleagues, to devote to study, and allowing the material to gradually enter the practice at its own pace.