

APPENDIX

Pulse Qualities: Sensation & Interpretation

Leon Hammer, M.D.

Jamin Nichols, A.P.

QUALITY	SENSATION	INTERPRETATION – CONDITION
Normal (slowed down)	Consistently regular; rate consistent with age; consistently stable quality, amplitude, and intensity; moderate spirit; resilient, compressible; Long, continuous; no turbulence; balanced among qi, blood, and organ depths, with qi the lightest and organ depth with root and the most dense; balanced among positions; Normal wave	Health

■ RHYTHM (ENTIRE PULSE)

I. ARRHYTHMIA

A. AT REST: RATE MEASURABLE, WITHOUT MISSED BEATS

1. OCCASIONAL CHANGE IN RATE

Small change	Speeds up and slows down moderately Left distal (possibly): Tight	Mild Heart qi agitation; scared inside Etiology: mild shock between ages 15-20 (Heart shock depletes Heart yin)
Large change	Speeds up and slows down greatly Left distal (possibly): Tight → Feeble	Moderate Heart qi agitation, mild Heart Qi deficiency; very scared; large mood swings Etiology: early moderate shock, or severe shock between ages 15-20

QUALITY	SENSATION	INTERPRETATION – CONDITION
2. CONSTANT CHANGE IN RATE		
Small change	Speeds up and slows down moderately Left distal (possibly): Tight First impressions: Rough Vibration Left distal: Smooth Vibration	Severe Heart qi agitation; mild to moderate Heart qi deficiency; vacillating, always changing mind, restless; fatigue Etiology: strong shock
Large change	Speeds up and slows down greatly Left distal (possibly): Absent ←→ Tight First impressions: Rough Vibration Many individual positions: Smooth Vibration	Moderate Heart qi and sometimes blood deficiency; fatigue Etiology: constitution, severe shock between ages 10-15, long-term Heart blood deficiency, and/or severe Heart qi agitation
B. AT REST: RATE MEASURABLE, WITH MISSED BEATS		
Intermittent	Misses beat regularly	Heart qi, blood, and yang deficiency
Frequent	Misses every 2-20 beats	Severe Heart qi, blood, and yang deficiency
Infrequent	Misses every 21-60 beats	Milder Heart qi, blood, and yang deficiency
Interrupted	Misses beats irregularly: 1. Occasional 2. Constant	1. Moderate Heart qi agitation and moderate Heart qi-yang deficiency 2. Severe Heart qi-yang deficiency
C. AT REST: RATE NOT MEASURABLE		
1. CONSTANT: DUE TO SHOCK, OVERWORK, OVEREXERCISE, AGE 5-10 YEARS		
Interrupted	Missed beats too irregular to measure rate	Severe Heart qi- yang deficiency; Heart blood stagnation. Etiology: severe shock from ages 5-10 years
Yielding Hollow Full-Overflowing Interrupted- Intermittent	Missed beats too irregular to measure rate, and Hollow	Most severe Heart qi-yang deficiency Etiology: severe shock prior to the age of 5
Literature: Knotted	Interrupted and Slow	Stagnation of circulation due to cold from excess or deficiency; qi, blood, essence, and yang deficiency
Hurried	Interrupted and Rapid	Fire from excess and/or stagnation of qi, blood, food, and phlegm

QUALITY	SENSATION	INTERPRETATION – CONDITION
---------	-----------	----------------------------

2. OCCASIONAL: SAME AS CONSTANTLY INTERRUPTED BUT LESS SEVERE, DUE TO:

I. SHOCK, OVERWORK, OR OVEREXERCISE, AGES 10-15, AND/OR

II. MODERATE TO SEVERE HEART QI AGITATION

D. ON EXERTION: LARGE INCREASE IN RATE

Constant	1. Rate increases on exertion more than 20 beats/min 2. Large change >30 beats/min 3. Small change 20-30 beats/min	1. Heart blood deficiency 2. Moderate-severe Heart blood deficiency 3. Mild Heart blood deficiency
Occasional	Rate increases on exertion	Same interpretation as constant, but less serious

E. ON EXERTION: SMALL INCREASE (< 8 BEATS/MIN.), SAME, OR DECREASE IN RATE

1. Rate stays same, or slight increase	1. No change or slight increase on exertion	1. Mildly severe Heart qi deficiency
2. Small decrease	2. Decreases 1-5 beats/min.	2. Severe Heart qi-yang deficiency
3. Large decrease	3. Decreases > 5 beats/min.	3. Very severe Heart qi-yang deficiency

II. PSEUDO-ARRHYTHMIAS: QUALITIES MISTAKEN FOR ARRHYTHMIAS

Hesitant Wave	Faltering, balking, without a missed beat; wave is up and down without bell-type curve	Excessive rumination about one thing; obsessive personality; worry, insomnia; mild Heart yin deficiency; ('push pulse' – mental overwork)
Change in Amplitude over entire pulse	1. Constant increase and decrease of height (force) of entire pulse 2. Occasional increase and decrease of height (force) of entire pulse	Yang force, metabolic heat, and spirit in state of transition 1. Always: Heart qi deficiency 2. Occasional: Liver qi stagnation
Unstable in one position	Impulse continually shifts under finger at individual position	Severe parenchymal damage; separation of yin and yang

■ STABILITY

Change in Amplitude	1a. Constant increase and decrease of height (force) of entire pulse	1a. Circulation diminished due to Heart qi deficiency
1. Entire pulse	1b. Occasional increase and decrease of height (force) of entire pulse	1b. Qi stagnation (usually Liver)
2. Individual positions	2. Constant increase and decrease of height (force) at one position	2. Mild to moderate separation of yin & yang of the solid organ associated with the position
Change in Amplitude from side to side	Change in Amplitude first on one side, then the other	Either profound interpersonal conflict or recent extraordinary exertion

Change in Qualities ('qi wild,' separation of yin and yang in entire organism)	<ol style="list-style-type: none"> 1. Qualities constantly changing over entire pulse 2. Qualities changing in one position 3. Qualities changing from side to side 	<ol style="list-style-type: none"> 1. 'Qi wild': prolonged work and exercise beyond one's energy from early age 2. Separation of yin and yang: extreme deficiency of yin organ qi and blood 3. 'Qi wild': severe husband-wife imbalance
Yielding Hollow Full-Overflowing Intermittent-Interrupted ('qi wild')	Regular or irregular missed beat, with Yielding Hollow Full-Overflowing quality	Most extreme 'qi wild' condition, also associated with severe Heart disease
Unstable	At individual position the impulse is erratic, constantly hitting a different part of the finger	Separation of yin and yang in the yin organ corresponding to that position; often associated with cellular chaos and neoplasms
QUALITY		INTERPRETATION – CONDITION

■ RATE

I. RAPID: CIRCULATION ACCELERATED

Bounding, as if pulse running away faster than the actual rate

See trauma, emotional shock, severe anxiety, fever, pain

A. EXTERNAL ETIOLOGY

1. EXTERNAL PATHOGENIC FACTORS

Slightly Rapid Yielding Floating

Wind-heat

Very Rapid Tense Full-Overflowing or Flooding Excess; Robust Pounding

Heat stroke

2. PHYSICAL TRAUMA

Very Rapid, Bounding, and Tight or Wiry

Extensive trauma (very recent); severe pain (Wiry = more pain)

Rapid, Bounding, and Tight or Wiry

Extensive trauma (after short time); pain (Wiry = more pain)

Less Rapid, and Tight or Wiry at one position

Local trauma; pain (Wiry = more pain)

Rapid: distal positions: Inflated, and Tight or Wiry

Trauma to chest- physical condition strong at time of trauma (Wiry = more pain)

Rapid, Flat, Tight

Physical condition weaker at time of trauma

QUALITY	INTERPRETATION – CONDITION
<p>3. SEASONAL FACTOR: RAPID IN AUTUMN</p> <p>I. CHANGES IN THE PULSE RATE IN RESPONSE TO THE SEASONS HAS BEEN OVERSHADOWED IN THE LAST CENTURY BY THE INCREASING AMOUNT OF SHEER PATHOLOGY DUE TO ENVIRONMENTAL TOXINS AND THE INCREASED EMOTIONAL STRESS OF THE PACE OF MODERN LIFE.</p> <p>4. EMOTIONAL TRAUMA (HEART SHOCK)</p>	
1. Very Rapid; entire pulse very Tight, Rough Vibration	1. Extreme emotional trauma
2. Tight at Pericardium and left distal position, Bounding	2. Extreme anxiety and panic
Slightly Rapid, Pericardium Tight	Mild emotional trauma
<p>B. EXTERNAL/INTERNAL ETIOLOGY: E.G., SHOCK FROM BIRTH TRAUMA (EXTERNAL) AND EMOTIONAL REACTION (INTERNAL)</p> <p>1. HEART CONDITIONS (ALL PULSES ARE RAPID)</p> <p>—SENSATION AT LEFT DISTAL POSITION—</p>	
Tight at Pericardium	Mild excess heat due to very mild Heart shock with worry, insomnia, and restlessness
Smooth Vibration	Very mild Heart qi agitation, transient worry
Change in Rate at Rest [over entire pulse]	Moderate to severe Heart qi agitation due to mild Heart shock with anxiety, fatigue, roller coaster feeling and life Including Heart qi deficiency if the degree is large
Flat Wave at distal positions-especially left distal	Heart qi stagnation due to moderate shock especially in early childhood, with spite, vengeance, chest pain [heart closed]
Very Flat Wave, Rough Vibration at all depths	Heart blood stagnation [heart small] and severe Heart qi deficiency due to severe unresolved Heart shock with fear, guilt
Deep, Thin, Feeble, and slightly Rapid or Slow	Severe Heart blood stagnation [heart small] due to old unresolved Heart shock with constant fear, chest pain, difficulty inhaling
Inflated (early) or Deep, Thin, Tight (later)	Trapped qi in Heart [heart closed] due to moderate Heart shock with chronic fatigue, easily angered, difficulty exhaling, body discomfort, difficulty lying on left side

QUALITY	INTERPRETATION – CONDITION
C. INTERNAL ETIOLOGY	
1. EXCESS HEAT	
Rapid, Tense, Flooding Excess, Robust, Pounding, Bounding, and Slippery at organ or all depths	Excess heat in organ (high fever)
Slightly Rapid, blood depth moderately expanded and Slippery	Excess heat in blood [inflammation]; turbulence in blood (Slippery)
Rapid, blood depth very expanded and Slippery to Tense-Tight Hollow Full-Overflowing Robust Pounding	Blood circulation severely impaired due to severe damp-heat [inflammation] in blood ('blood thick') from excessive lipids (Slippery) or severe Heart qi deficiency
Moderately Rapid and Tense uniformly over entire pulse	'Nervous system tense' due to daily stress (affects Heart)
2. YIN DEFICIENCY	
Slightly Rapid, Thin, and slightly Tight	'Nervous system tense' due to daily stress over longer time
Floating, slightly Rapid, Tight to Wiry	Internal wind: mild (wind in channels)
Very Tight Hollow Full-Overflowing	Internal wind: severe (stroke)
Slightly Rapid, very Tight to Wiry	Low grade fever in chronic illness (e.g., tuberculosis)
D. OTHER ETIOLOGIES	
Leather-like Hollow and Rapid	Imminent hemorrhage
Acute: Biting, Wiry, Bounding and Rapid Chronic: Tight, Biting and less Rapid	Acute pain (Wiry = greater pain) Chronic pain
Sudden appearance of Rapid rate	Temporary mobilization of qi to fight acute aggravation of chronic disease (e.g., fulminating colitis with chronic colitis) Emotional shock, paradoxically with chronic Heart qi deficiency
Sudden appearance of Rapid rate: Yielding Hollow Full-Overflowing	Sudden cessation of heavy, prolonged exercise and/or work
Very Rapid (> 120/min), Deep, Thin and Feeble, or Deep, Thin, Tight	Lesser yin stage of six stages (paradoxically low temperature)

QUALITY	INTERPRETATION – CONDITION
II. SLOW	
A. CIRCULATION DIMINISHED	
1. HEART-CIRCULATION [HEART QI DEFICIENCY]	
Slow, and Tight or Rough Vibration	Unresolved shock, either physical (Tight) or emotional (Rough Vibration) after many years (20-30)
Slow, Yielding Hollow Full-Overflowing	Heavy work or exercise beyond one's energy beginning early in life (5-10 years of age)
Slow, Feeble (especially left distal & proximal)	Heart qi and/or yang deficiency, circulatory deficiency; etiology arises after age 20
Slow, Moderate Robust Pounding	Aerobic exercise (long term)
Slow, Very Tight Hollow Full-Overflowing	Earlier yin deficiency in vessels
Slow & Tense Ropy	Excess heat in vessels; 'blood thick' (middle stage arteriosclerosis)
Slow & Tight Ropy	Advanced yin deficiency affects vessels (advanced arteriosclerosis)
2. EXTERNAL STAGNATION	
Slow, Floating, Tense	External wind-cold pathogen
3. INTERNAL STAGNATION (IMPAIRED QI CIRCULATION)	
Slow, Tense (especially left middle position)	Liver qi stagnation (long term)
Slightly Slow, Tense over entire pulse with slight Robust Pounding	Constitutional 'nervous system tense'
Very Slow, Deep, Tense [Firm]	Severe internal cold from excess
Tense Hidden (very rare)	Very severe internal cold from excess
Slow and Feeble or Empty	Longstanding internal disease, overwork, overexercise, sex beyond one's energy, and protracted emotional strain cause qi and yang deficiency; etiology begins between age 15-20 with Empty, and after 20 with Feeble qualities
Slow and Slippery	Cold-dampness-phlegm: Spleen qi deficiency; Heart and Kidney qi deficiency
Very Slow, Suppressed Wave	Heart medications: beta blockers
Very Slow, very Deep, Blood Unclear	Poison over long period of time

QUALITY	SENSATION	INTERPRETATION – CONDITION
III. RATE VARIES		
Rates on right and left sides consistently vary (problem began on slower side)	<ol style="list-style-type: none"> 1. Rate on sides differ consistently 2. Feeble at left distal and proximal positions 3. Feeble at left distal position only 4. Feeble on side that is overused 	<ol style="list-style-type: none"> 1. Congenital anomaly with blocked vessel 2. Shock in utero 3. Heart qi deficiency, or trauma and heavy lifting 4a. Habitual overuse of that side 4b. Imbalance in digestive and organ ‘systems’ 4c. Husband-wife imbalance
Rate in Distal Positions differ from rate in middle and lower burners	Upper Burner Rate: 90 beats/min Middle-Lower Burner: 42 beats/min	Medication: Calcium Channel Blocker
Rate in NP differs rest of pulse	<ol style="list-style-type: none"> 1. NP: opposite side-300beats/min; rest of pulse 2. NP: 100 beats/min Rest of Pulse: 50 beats/min 	<ol style="list-style-type: none"> 1. Intracranial bleeding; Jacksonian Seizure after surgery to relieve bleeding 2. With seizure meds

■ VOLUME

I. ROBUST VOLUME

Hollow Full-Overflowing Wave (usually over entire pulse, or a combination of individual positions, especially on left side, or in milder conditions, left middle position)	<p>Forcefully rising from organ depth to above qi depth, with normal sine wave</p> <ol style="list-style-type: none"> 1. Yielding with pressure (entire pulse) 2. Tense on surface 3. Very Tight on surface 4. Very Tight-Wiry and very Rapid 	<ol style="list-style-type: none"> 1. ‘Qi wild’ 2. Blood excess heat 3. Excess Heat depleting vessel yin 4. Imminent stroke
Flooding Excess Wave (entire pulse or individual position)	Rises powerfully and gradually from a strong base at organ depth to above the qi depth, then recedes precipitously to organ depth	Excess heat in yin organs due to infection (usually acute), or fever (rarely from yang qi constrained internally by cold)
Pounding: Robust	Beats against finger w/force Only organ depth Pounding	Excess heat Medication suppressing wave
Robust and Suppressed		Consciously suppressed emotions [less often]

QUALITY	SENSATION	INTERPRETATION – CONDITION
Suppressed Wave at surface (entire pulse)	Wave at top of pulse flat and cut off and/or	Effects of medication; consciously suppressed emotions [less often]
Suppressed Pounding	Pounding at organ depth with little or no Pounding at blood and qi depths	Effects of medication; consciously suppressed emotions [less often]
Inflated (degrees of tension; individual positions)	Very Tense, round and balloon-like, unyielding to pressure	Trapped qi in organ or area
Inflated Yielding	Inflated Yielding	<ul style="list-style-type: none"> • Improperly talking, breathing and/or singing [right distal position] • Unresolved grief
Mildly Tense Inflated	Mildly Tense Inflated	Breech birth [left distal position]
Tense Inflated [diaphragm position]	Tense Inflated	* Emphysema [right distal and Special Lung Positions]
Very Tense Inflated	Very Tense, round and balloon-like, unyielding to pressure	<ul style="list-style-type: none"> • Sudden extreme anger and activity * One major episode of lifting beyond one's energy * Trauma or surgery to upper burner * Trapped blood in organ or area due to trauma to a strong person

II. REDUCED VOLUME

Yielding at qi depth (entire pulse or individual position)	Qi depth slightly pliable under gentle pressure	First stage of qi deficiency due to work beyond one's energy, insomnia, and/or mild illness
Diminished or Absent at qi depth (entire pulse or individual positions)	Qi depth is feeble or absent	Second stage of qi deficiency (see etiology immediately above)
Spreading at blood depth, Absent at qi depth (entire pulse or individual positions)	Qi depth absent and blood depth separates to sides of finger with pressure	Third stage of qi deficiency (see etiology above)
Partially Hollow at blood depth	With increased pressure the blood depth separates and then is restored at organ depth	First stage of blood deficiency
Flooding Deficient Wave (entire pulse)	Rises weakly from organ almost to qi depth and drops precipitously to organ depth	Fourth stage of qi deficiency: 'push pulse' (constantly 'pushing' one's self physically)

QUALITY	SENSATION	INTERPRETATION – CONDITION
Reduced Pounding (see below with modifiers)	Beats against finger without force, energy, or vigor	Fifth stage of qi deficiency: body is depleted of qi and blood, but still trying to compensate and maintain normal function
Diffuse	Feels like wide, amorphous cheese cloth next to both sides of principal impulse into which it merges without clear boundaries	Sixth stage of qi deficiency
Reduced Substance (see below under modifiers)	Lacks sense of material content and with diminished buoyancy, elasticity, and resilience; cigarette with less tobacco	Seventh stage of qi deficiency
Deep (entire pulse or individual positions)	See below under Depth	Eighth stage of qi deficiency
Flat Wave (usually at distal positions)	Wave is suppressed and has very reduced sine curve, usually at organ depth	Stagnant qi cannot reach into organ or area due to emotional and/or physical trauma in a person who was deficient at the time [ex: childhood], or cord around neck at birth which has closed off the circulation to this organ or area
Feeble-Absent (entire pulse or individual positions)	Barely or not palpable at organ depth	Ninth stage of deficiency of the ‘true qi’ and qi and blood of yin organ; very vulnerable to serious illness
Muffled (entire pulse or individual positions)	Qualities palpable but muted and obscure at all depths, as if a towel were placed over artery	All substances chaotic and deficient; active coherent function at cellular/molecular level impaired; tumors; surgery; auto-immune system deficiency; depression (especially at left distal position)
Dead (individual positions)	No sensation, total lack of life or movement in the artery	Usually malignancy and terminal illness

QUALITY	SENSATION	INTERPRETATION – CONDITION
■ DEPTH		
I. SUPERFICIAL		
Cotton	Above the qi depth, a spongy, amorphous, formless resistance to pressure	Suppressed emotions to which the person has become resigned Physical trauma [only according to Dr. Shen]
Floating	Accessed by placing fingers lightly on skin, without pressure above and separate from the wave form	
External	1. Floating, Tense, Slow 2. Floating, Yielding, Rapid	1. Wind-cold 2. Wind-heat
External–Internal	Floating Slippery	Liver Wind
Internal	Floating Tight with Normal or slightly Rapid rate Floating Smooth Vibration	Heart Qi Agitation [worry]
Empty		
1. Entire pulse:		
a. Yielding Empty	a. Yielding at qi depth, Separating or Absent at blood and organ depths	a. ‘Qi wild’: separation of yin and yang throughout body
b. Tense Empty	b. Tense at qi depth, separating or Absent at blood and organ depths	b. Attempt to mobilize qi to cope with extreme sudden emotional stress [Post Traumatic Stress disorder]
c. Yielding Empty Thread-like (entire pulse)	c. Yielding, superficial, and very thin, like a thread floating on water, and separating or absent at blood and organ depths	c. ‘Qi wild’ due to extreme yin or yang deficiency following severe or terminal illness; difficult parturition
d. Leather-Empty	d. Drum-like thick hardness at qi depth, separating or absent at blood and organ depths	d. ‘Qi wild’ due to extreme deficiency of essence, yin, and blood; excessive blood loss
e. Minute (entire pulse)	e. Access only at blood depth, as if divided into fragments rather than continuous as one rolls finger from distal to proximal position	e. Yang, qi, and blood deficiency due to extreme deficiency of yin and yang following serious illness with major loss of fluids and qi; ‘ceiling dripping’ in AIDS patients
g. Scattered (entire pulse)	g. Access only at qi depth, as if divided into fragments rather than continuous, as one rolls finger from distal to proximal position	g. ‘Qi wild’ due primarily to exhaustion of yang; ‘ceiling dripping’ in AIDS patients
2. Individual positions		2. Separation of yin and yang in organ associated with that position

QUALITY	SENSATION	INTERPRETATION – CONDITION
Hollow	Blood depth diminished, separating, or absent:	
1. Entire pulse	1. Yielding Hollow Full-Overflowing and: Slow Rapid	1. ‘Qi wild’ Gradual development from work/exercise ‘beyond energy’ since childhood Sudden development from suddenly stopping prolonged exercise/work
2. Entire pulse	2. Yielding Hollow Full-Overflowing, Interrupted-Intermittent	2. Most severe ‘qi wild’
3. Individual position	3. Partially Hollow	3. Mild blood deficiency
4. Individual position	4. Leather-like Hollow Rapid Slow	4. Acute severe hemorrhage Imminent Recent past
5. Entire pulse, left side, or left middle and/or proximal-distal positions	5. Very Tense Hollow Full-Overflowing	5. Severe excess heat in the blood; high blood pressure with elevated systolic; heat in blood; potential stroke
6. Entire pulse or one side	6. Very Tight Hollow Full-Overflowing	6. Advanced high blood pressure; imminent stroke [often same side]. Severe excess heat in the blood; yin deficiency in blood and vessels with yang rising
II. SUBMERGED		
Deep (entire pulse or individual positions)	Accessed only at organ depth	Internal, serious, or chronic disease. Moderate to severe depletion of all substances, especially qi and yang
Literature (rare): Hidden (entire pulse or individual positions)	Accessed with extreme pressure just above bone	Serious illness
1. Excess Tense Hidden		1. Yang qi trapped internally due to painful obstruction from cold [hypothermia], food, phlegm, blood, and heat transforming into wind
2. Deficiency Yielding Hidden		2. Yang qi too deficient to rise due to severe yang qi deficiency; deterioration of yin organs; neoplasm
Literature: Firm (entire pulse or individual positions [rare])	Deep, Wiry, Long between Deep and Hidden	Stagnation due to cold from excess, neoplasm, and/or exhaustion with ‘running piglet’ disease

QUALITY	SENSATION	INTERPRETATION – CONDITION
■ SIZE I. WIDTH A. WIDE 1. BLOOD		
Partially Hollow Yielding Partially Hollow	Impulse separates between qi and organ depths	Less serious blood deficiency than Thin; slow bleeding (gastro-intestinal ulcer); chronic colitis; mild to moderate menorrhagia
Leather-like Hollow	Blood Depth completely Hollow; Qi depth thick and drum-like	Sudden severe hemorrhage Rapid: imminent Slow: recent
Blood Unclear	Blood depth fills out slightly as one releases pressure from organ depth to blood depth and decreases to qi depth	Toxicity in blood from environment, deficient digestion, and inadequate Liver function
Blood Heat	Blood depth fills out significantly as one releases pressure from the organ depth, and decreases on further release of pressure to qi depth	Due to excessive spicy foods, sugar, alcohol, emotional conflict and Liver qi stagnation, 'nervous system tense'
Blood Thick	Blood depth expands to qi depth as one releases pressure from the organ depth	Due to excessive fatty and rich foods, emotional conflict, and Liver Qi stagnation
Hollow Full-Overflowing	Blood depth expands above qi depth with sine wave	Excess heat in blood
2. QI		
1. Robust Pounding	1. Beats against finger with force	1. Excess Heat
2. Flooding Excess	2. Rises powerfully and gradually from a strong base at organ depth to above the qi depth, then recedes precipitously to organ depth	2. Excess heat in yin organs due to infection (usually acute), or fever (rarely from yang qi constrained internally by cold)
3. Yielding at qi depth	3. Qi depth slightly pliable under gentle pressure	3. First stage of qi deficiency
4. Spreading at blood depth	4. Qi depth absent and blood depth separates to sides of finger with pressure	4. Third stage of qi deficiency
5. Diffuse	5. Feels like wide, amorphous cheese cloth next to both sides of principal impulse into which it merges without clear boundaries	5. Sixth stage of qi deficiency

QUALITY	SENSATION	INTERPRETATION – CONDITION
B. NARROW		
Thin	Primarily blood deficiency Very Thin pulse in young man	Severe auto-immune disease; qi & blood deficiency
Tight-Wiry		Drying of tissues or pain; early diabetes or hypertension at left middle and proximal positions; Yin-essence deficient
Thin Tight	Thin and Tight	Blood and yin deficiency
Thin Yielding	Thin and Yielding	Blood and qi deficiency
Yielding Empty Thread-like	Yielding, Superficial, and very Thin, like a thread floating on water; Separating or Absent at blood and organ depths	Qi wild' due to extreme yin and/or yang deficiency during or following severe or terminal illness; difficult parturition
Thin (individual positions)	Right Distal Position	Lungs unable to aerate sufficient blood
	Left Distal Position	Heart unable to circulate sufficient blood
	Left Middle Position	Liver unable to store sufficient blood
	Right Middle Position	Spleen unable to make sufficient blood
	Proximal Positions	Kidney essence 'marrow' unable to make sufficient blood
Other: Narrow	Special Lung Position	Lung qi stagnation
	Limited in scope and space either by width, length, or both; used only to describe Special Lung position	While not yet completely defined, this quality is at least a sign of severe stagnation with deficiency; cancer in chest, Lung or other pulmonary obstructive disease
II. LENGTH		
Long (entire pulse)	Resilient, continuous, slightly longer than Normal quality	Healthy without symptoms Excess heat with symptoms and Robust Pounding
Short (between positions)	Sensation is discontinuous between positions; usually two positions feel separated 1. Tense [more common] 2. Yielding [more rare]	Circulation between yin organs is obstructed 1. Stagnation of blood, qi, phlegm, food 2. Due to qi deficiency
Restricted (length)	Limited in scope and space by length; most commonly used to describe Special Lung position	While not yet completely defined, this quality of the SLP is at least a sign of severe stagnation; cancer in chest, Lung, or other pulmonary obstructive disease

QUALITY	SENSATION	INTERPRETATION – CONDITION
■ SHAPE		
I. FLUID		
Slippery (entire pulse or individual positions)	Slides rapidly under finger(s) in one direction “Like a grease ball that slides under the fingers”	Normal in pregnancy; depending on depth and position: dampness, phlegm Organ depth: infection Qi depth: due to excess sugar (more Rapid) or qi deficiency (slower) Blood depth: turbulence in blood due to dampness, heat, increased blood viscosity (sugar, lipids); or blood flow in wrong direction, as with heart valve Organ depth: infection Organ Blood Depth : Damp Retained Pathogen Organ Substance Depth: Damp Retained Pathogen
II. NON-FLUID		
A. EVEN		
1. Taut (entire pulse or individual positions)	Resilience and elasticity of a <i>very</i> wide cord that is <i>moderately</i> stretched	Early sign of qi stagnation
2. Tense (entire pulse or individual positions)	Resilience and elasticity of a <i>moderately</i> wide cord that is <i>tightly</i> stretched	Later stage of qi stagnation with excess heat
3. Tight (entire pulse or individual positions)	Cord is narrower with less flexibility and resilience, and is harder to the touch	Yin deficiency, with some residual qi stagnation and excess heat
3a. Like ‘pencil point’ in Pericardium position	3a. Like ‘pencil point’ in Pericardium position	3a. Mild excess heat in Heart
3b. Very Tight and Rapid (suddenly, over entire pulse)	3b. Suddenly extremely Tight over entire pulse	3b. Severe emotional shock; severe pain
3c. Floating Tight	3c. Tight above qi depth with no wave	3c. Essence (CNS) pathology [Internal ‘wind’]
Wiry (entire pulse or individual positions)	Very hard and cutting to the touch, similar to a thin, rigid metal wire	1. Extreme deficiency of yin and essence (early diabetes) 2. Early hypertension [less often] 3. Severe pain (from trauma, excess cold, blood stagnation)
Leather-Hard	Qi, blood & organ depths all hard and inflexible	EMF exposure depleting immune system

QUALITY	SENSATION	INTERPRETATION – CONDITION
Ropy (entire pulse)	Vessel cord-like, large, round, often like twisted rope, distinct from surrounding tissue as if it could be lifted and moved	Chronic excess heat causing the vessels to thicken and lose elasticity; arteriosclerosis
Unyielding (hard)	Same as above	
Yielding	Pulse is cord-like, large, and round but Yielding and Hollow rather than Hard., more like a soft flexible tube than a hard rope.	Etiology: 1. More common: long-term exercise beyond one's energy 2. Less common: trauma Pathogenesis: vessel walls malnourished Associated condition: ?neurological disease [Parkinsonism]

B. UNEVEN

Choppy (individual position)	Rough, uneven and grating without vibration	Blood stagnation due to excess heat; qi, blood or essence deficiency and toxicity; microbleeding in GB, SPEP,* LI, SI * Stomach-Pylorus Extension position
Vibration	Buzzing feeling with rapid oscillation	
1. Smooth	1. Smooth and superficial, light electrical sensation	1. Transient worry when found in a few positions; worrying personality when found in most positions and depths
2. Rough	2. Rougher [coarse buzzing] a. Over entire pulse, all depths b. Individual Position c. Blood Depth	2. a. Profound fear, guilt and/or emotional [Heart] shock b. Parenchymal damage c. Parenchymal damage to blood vessel walls

C. MISCELLANEOUS

Nonhomogeneous (individual positions)	Sensation is not accessed uniformly within the area of a particular position. In some parts of position there is consistently more substance than in other parts. It therefore has an uneven, bumpy feeling.	If Robust, stagnation of all substances; if Reduced, deficiency of all substances Function is seriously impaired
Bean (Spinning) (individual positions)	Occupies one position, though often overlaps others. Quality varies: very hard, like a splinter; very Tight-Wiry, like bolt of lightning; bubbles (literature [rare]: Slippery, Vibrating, and Rapid)	Imbalance from acute chaotic physiology with separation of yin and yang. Associated with severe pain; very great fright; intestinal obstruction; severe neurological disease; metastatic cancer
Doughy (Neuro-psychological position)	Flabby, amorphous, putty-like 'glob' whose shape is never the same and whose volume varies from very faint to moderately Robust	Etiology under study but undetermined; [possible neurological disease; headache, usually of structural etiology; possibly multiple sclerosis]

QUALITY	SENSATION	INTERPRETATION – CONDITION
Collapsing	Qualities over entire pulse or one or few positions suddenly disappear for part or remainder of examination	1. Individual Positions 'Separation of Yin/Yang'; extreme deficiency; physiological chaos 2. Entire Pulse Anomaly [check for 3 Yin and Transposed pulse]
Amorphous	No definition; cloud-cotton	1. 'Separation of Y/Y' 2. Anomaly: 3 Yin; Transposed
Electrical	Holding a live wire	Epilepsy; bundle branch block (Heart)
Unstable	In individual positions hits the finger at different places with each beat	Separation of yin and yang of the involved organ
Leisurely (Moderate, Slowed Down)	Changing Amplitude and/or Intensity ~ very slowly	Normal; damp condition

D. QUALIFIERS (QUALITIES AND SENSATIONS THAT QUALIFY OTHER QUALITIES)

Rough (entire pulse or individual positions)	Not smooth or level; having bumps, projections; uneven	A Rougher sensation is a sign of a more serious condition than a Smooth sensation
Smooth (entire pulse or individual positions)	A more delicate sensation, as opposed to Rough; Smooth has an even or level surface	Smoothness is associated with a less serious condition than Roughness
Vague	Sensation indistinct	Interpretation unclear – perhaps greater deficiency
Robust and Reduced Force (entire pulse or individual positions)	Force is defined as strength, energy, vigor, and power, especially the intensity of the power or impetus Robust Pounding: pounds with great force Reduced Pounding: pounds with little force	Most commonly used to modify the depiction of the Pounding quality Signifies attempt by organism to rid itself of excess, usually excess heat Signifies that depleted organism is still trying to maintain normal function
Robust Substance	Strong material content; experienced as alive and healthy	Normal pulse
Reduced Substance	Lacks sense of material content and with diminished buoyancy, elasticity, and resilience; cigarette with less tobacco	Seventh stage of qi deficiency
Biting	Very Tight quality with sensation of finger being nipped	Pain, usually at Intestine positions signifying abdominal discomfort
Ephemeral (Transient) (~)	Comes and goes, especially at Neuro-psychological and Valve positions	Signifies less disharmony than with a quality that is more enduring

QUALITY	SENSATION	INTERPRETATION – CONDITION
Separating	On pressure the pulse separates, moving simultaneously in two directions, distal and proximal	Found in the Spreading quality and early stages of, Empty, and Hollow qualities; often confused with the Slippery quality, which moves in only one direction
E. ANOMALOUS QUALITIES		
<i>Sān yīn mài</i> (‘three hidden pulse’)	Left side Hidden or Absent	Congenital with no clinical significance
<i>Fǎn quán mài</i> (Transposed)	Pulse primarily found on dorsal aspect of right wrist, or both wrists	Congenital anomalous artery with no clinical significance
Ganglion	Pulse obscured by mucilaginous connective tissue	Synovial or tendon sheath cyst
Trauma	Pulse obscured by scar tissue	Post-traumatic scar due, e.g., to intra-arterial intubation
F. ANOMALOUS VESSELS		
Split vessel	Two vessels in one position; usually left and right middle positions, less often proximal	Found in situations or conditions in which death is experienced as imminent for oneself or close relation [fatal disease]; often with suicidal ideation
Multiple radial arteries	Radial artery at wrist divides into two or more vessels	No established clinical significance