
**Traditional Chinese medicine —
Vocabulary for diagnostics —**

**Part 2:
Pulse**

*Médecine traditionnelle chinoise — Vocabulaire pour les
diagnostics —*

Partie 2: Pouls

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 249, *Traditional Chinese medicine*.

A list of all parts in the ISO 23961 series can be found on the ISO website.

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Introduction

Traditional Chinese medicine has become increasingly popular all over the world. Traditional Chinese medicine education has developed rapidly. Traditional Chinese medicine has obtained legal status in the United States, Singapore, Australia, Thailand and other countries and regions. Academic activities of traditional Chinese medicine are increasingly active. International communication of traditional Chinese medicine and medical activities, scientific research, management rules and regulations are in urgent need of International Standards.

First, standardized terminology is essential to standardize products and services. Pulse diagnosis is one of the most distinctive traditional Chinese medicine diagnostic methods. At present, the international trade of pulse-equipment-related products is in great demand in the international market. This document aims to encourage improvement of the pulse-equipment-related industrial and research fields. All traditional Chinese medicine pulse diagnostic instruments can use the same vocabulary, which is very important for international trade and communication. With standardized terminology, the versatility of pulse-equipment-related products or services can be improved to benefit international technical cooperation.

Second, the use of standardized terminology in diagnosis helps to avoid confusion among researchers in the field of pulse diagnosis. But more importantly, the use of standardized terminology in pulse diagnosis also helps manufacturers to deliver a standardized meaning of TCM pulse obtained by pulse-related diagnostic medical devices. Considering the close association between the traditional Chinese medicine diagnosis and diagnostic medical devices, the importance of standardizing diagnostic terminology is clear.

Third, the purpose of the project is for the use of traditional Chinese medicine diagnostic instruments and artificial intelligence (AI) medicine. As internet-based medicine is developing very quickly, a standardized terminology is not only important for computerized information but also necessary for successful communication between physicians and patients from different countries. With advances in AI, medical AI doctors also need standardized terminology.

Therefore, it is necessary to standardize pulse diagnostic terminology as quickly as possible, in order to bring benefits to scholars, governments and enterprises worldwide.

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Traditional Chinese medicine — Vocabulary for diagnostics —

Part 2: Pulse

1 Scope

This document specifies the basic terminology of pulse diagnostic methods, the key elements of pulse and pulse condition. Each term of pulse diagnosis includes the English name, the classical Chinese characters and its definition.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1

Cun-kou

medial aspect of the styloid process of the radius where the radial artery pulsates

3.2

pulse diagnosis

examination of the pulse in Cun-kou for making diagnosis

3.3

guan/bar

medial side of the styloid process

Note 1 to entry: See [Figure 1](#).

3.4

cun/inch

carpet end of guan

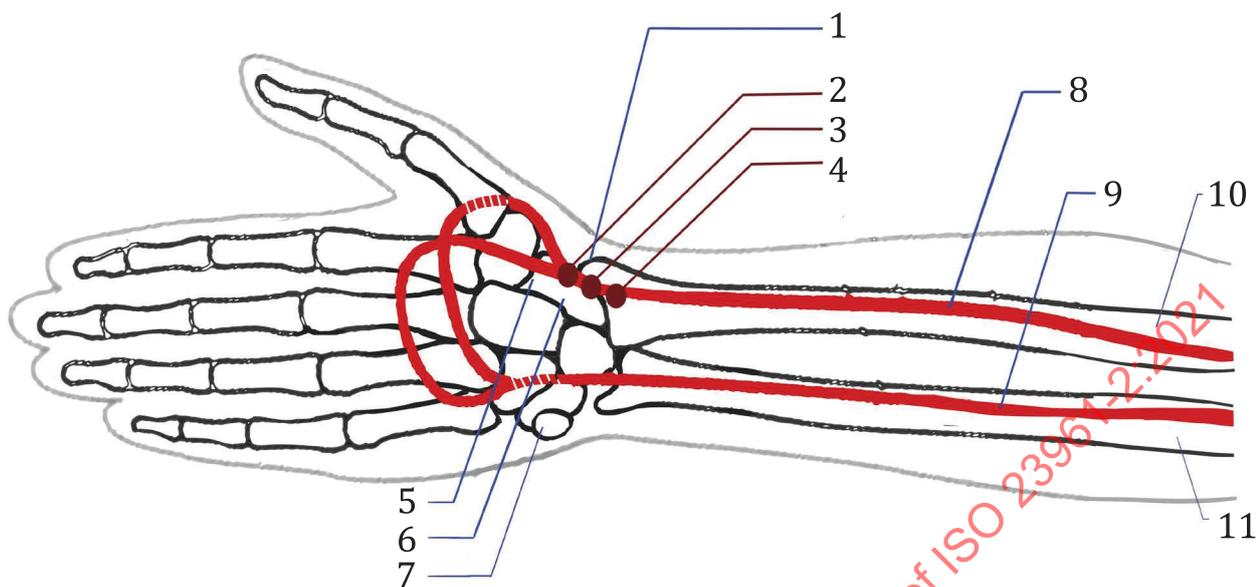
Note 1 to entry: See [Figure 1](#).

3.5

chi/cubit

cubital end of guan

Note 1 to entry: See [Figure 1](#).



Key

- 1 styloid process of radius
- 2 cun/inch
- 3 guan/bar
- 4 chi/cubit
- 5 scap
- 6 bifur
- 7 pisit
- 8 radial artery
- 9 ulnar artery
- 10 radius
- 11 ulna

Figure 1 — Location of cun/inch, guan/bar and chi/cubit for pulse diagnosis

4 Terms relating to the methods of pulse diagnosis

4.1 arrangement of fingers

布指

three fingers being arched with the same level of finger tips, and the physicians feeling the pulsation with crossing area of the finger tips and bulbs

Note 1 to entry: The spacing of the three fingers can be proportionate to the patient's height. The fingers are spaced apart for a tall patient whereas they should be kept close together for a short patient.

Note 2 to entry: For further information, see [A.1.1](#).

4.2 individual-finger palpation

單按

placement of one specific finger at one position to examine the state that the region represents

Note 1 to entry: For further information, see [A.1.2](#).

4.3 simultaneous palpation with three fingers

總按

placement of the three fingertips simultaneously on three points with the same strength to examine the overall pulse condition of the three points

Note 1 to entry: For further information, see [A.1.3](#).

4.4 lifting light pulse feeling superficial pulse feeling

舉

gently touching the skin

Note 1 to entry: For further information, see [A.1.4](#).

4.5 pressing heavy pulse feeling deep pulse feeling

按

exerting strong finger power to reach the bones

Note 1 to entry: For further information, see [A.1.5](#).

4.6 searching

尋

gradually increasing finger power and searching the most palpable pulsation from left to right, back and forth, around the cun/inch, guan/bar and chi/cubit at Cun-kou

Note 1 to entry: For further information, see [A.1.6](#).

5 Terms relating to the key elements of pulse

5.1 pulse location

脈位

location of pulse beating

Note 1 to entry: Can be superficial or deep, for example with a floating pulse or a sunken pulse.

Note 2 to entry: For further information, see [A.2.1](#).

5.2 pulse rate

至數

frequency of pulse beating

Note 1 to entry: Can be slow or rapid, for example with a slow pulse or a rapid pulse.

Note 2 to entry: For further information, see [A.2.2](#).

5.3
pulse length

脈長
axial length of the pulse beating

Note 1 to entry: Can be short or long, for example with a short pulse or a long pulse.

Note 2 to entry: For further information, see [A.2.3](#).

5.4
pulse strength

脈力
force of pulse beating

Note 1 to entry: Can be forceless or forceful, for example with a vacuous pulse or a replete pulse.

Note 2 to entry: For further information, see [A.2.4](#).

5.5
pulse width

脈寬
radial breadth of pulse beating relating to the thickness or thinness of beats

Note 1 to entry: Can be small or large, for example with a surging pulse or a fine pulse.

Note 2 to entry: For further information, see [A.2.5](#).

5.6
pulse smoothness

流暢度
smoothness of approaching pulse beating

Note 1 to entry: Can be smooth or rough, for example with a slippery pulse or a rough pulse.

Note 2 to entry: For further information, see [A.2.6](#).

5.7
pulse tension

緊張度
tightness of the vessel of pulse beating

Note 1 to entry: Can be tight or relaxed, for example with a tight pulse or a relaxed pulse.

Note 2 to entry: For further information, see [A.2.7](#).

5.8
pulse evenness

均勻度
regularity of pulse beating

Note 1 to entry: Can be irregular or even of rhythm and strength, such as with a racing pulse, a bound pulse or an intermittent pulse.

Note 2 to entry: For further information, see [A.2.8](#).

5.9
classification of the key elements of pulse

key elements of pulse being divided into different levels

Note 1 to entry: For the classification structure of the key elements of pulse, see [Figure 2](#).

Note 2 to entry: Pulse conditions being generally discussed in eight key elements: location, rate, length, width, strength, smoothness, tension and evenness. The varieties of pulse condition can occur as a result of a combination of degree changes of the above eight aspects. Some pulses involve single element, such as a superficial or deep pulse (location). Some involve multiple factors, for example a weak pulse is mixture of deep (location), thread (width) and deficient (strength) quality.

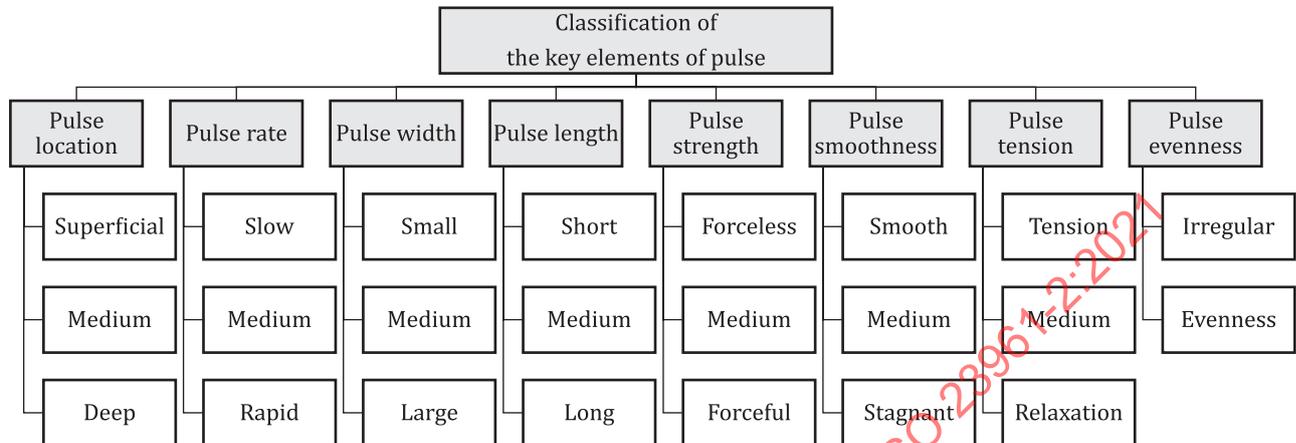


Figure 2 — The classification structure of the key elements of pulse

6 Terms relating to pulse condition

6.1

bound pulse

結脈

pulse with slow and irregular pulse rate

Note 1 to entry: The first origin is (*Huangdi's Internal Classic* (《黃帝內經》)).

Note 2 to entry: *Classic of Difficult Issues* (《難經》) states, "A bound pulse has occasional stops and the stops have no definite pattern". *Treatise on Cold Damage* (《傷寒論》) states, "The pulse that arrives unhurriedly, occasionally stops and then is restored is called irregularly intermittent pulse" (Chapter *Bianmaifadiyi*, 辨脈法第一). *Pulse Classic* (《脈經》) states, "A bound pulse arrives and departs unhurriedly and there is one stop before the normal pulse beating is restored," (Volume 1), which was cited by *Binhu's Sphygmology* (《瀕湖脈學》).

Note 3 to entry: For further information, see [A.3.1](#).

6.2

dissipated pulse

散脈

pulse which is superficial, irregularly chaotic with light pressure and impalpable with heavy pressure

Note 1 to entry: The first origin is (*Huangdi's Internal Classic*).

Note 2 to entry: *Pulse Classic* states, "A dissipated pulse is large and scattered" (Volume 2), which was cited by *Binhu's Sphygmology* and states, "A dissipated has an irregular pulse rate". *Essential Principles and Practice of Pulse Diagnosis* (《診家正眼》) states, "A scattered pulse is floating and scattered, present in the exterior, not in the interior, gradually becoming empty at the moderate level and completely expiring with pressure" (Volume 2).

Note 3 to entry: For further information, see [A.3.2](#).

6.3 drumskin pulse

革脈

pulse which is easily felt with gentle touch and superficial with an empty centre, feeling like the surface of a drum

Note 1 to entry: The first origin is *Treatise on Cold Damage*.

Note 2 to entry: *Pulse Classic* states, “A drumskin pulse is deep, hidden, replete, large, long and slightly string-like” (Volume 1). *Binhu’s Sphygmology* states, “A drumskin has a hollow centre and is hard and leathery outside just like a drum”. *Systematic Theory and Practice on Four Diagnostic Methods* (《四診訣微》) states, “A drumskin pulse is string-like and hollow, like a drum. It is floating, large, string-like, tight on the outside and empty within. With light pressure, the pulsation can be clearly felt; with heavy pressure, there is a feeling of emptiness within, as if pressing on the skin of a drum” (Volume 7). *Revised Verses in Pulse Diagnosis* (《脈訣指掌》) by Zhu Zhenheng states, “A drumskin pulse is string-like, replete and large, just like the feeling of drum” (Chapter *Bianmaixingmingzhuang*, 辨脈形名狀).

Note 3 to entry: For further information, see [A.3.3](#).

6.4 faint pulse

微脈

pulse which is extremely thready, soft and barely palpable

Note 1 to entry: The first origin is (*Huangdi’s Internal Classic*).

Note 2 to entry: *Book to Safeguard Life Arranged by Categorized Patterns* (《類證活人書》) states, “Faint means extremely thready and soft. The pulse is sometimes present but sometimes not” (Volume 2). *Corrections of Verse Errors in Pulse Diagnosis* (《脈訣刊誤》) states, “A faint pulse is sometimes present and sometimes not. It ought to be felt with light pressure. With heavy pressure, sometimes it can be felt and sometimes not” (Volume A).

Note 3 to entry: For further information, see [A.3.4](#).

6.5 fine pulse

細脈

pulse with a thread-like feeling but obvious with a light touch

Note 1 to entry: The first origin is (*Huangdi’s Internal Classic*).

Note 2 to entry: *Pulse Classic* states, “A fine pulse is fine and small. It is larger than a faint pulse” (Volume 1). *Binhu’s Sphygmology* states, “A fine pulse is fine, straight and soft, like a silken thread.” *Essential Principles and Practice of Pulse Diagnosis* states, “A fine pulse is like a silken thread, it is larger than a faint pulse”. (Chapter *Ximaiyi*, 細脈陰). *Key Principles in Pulse Diagnosis* (《脈訣匯辨》) states, “A fine pulse is small and fine, like a silken thread. It is clearly felt with light touch” (Volume 4).

Note 3 to entry: For further information, see [A.3.5](#).

6.6 firm pulse

牢脈

pulse with deep location, long length, high tension, forceful strength and palpable only by heavy pressing

Note 1 to entry: The first origin is *The Classic of Difficult Issues*.

Note 2 to entry: *Pulse Classic* states, “A firm pulse is deep, hidden, replete, large, long and slightly string-like”, which was cited by *Binhu’s Sphygmology*. *Revised Verses in Pulse Diagnosis* by Zhu Zhenheng states, “A firm pulse is deep, hidden, solid, string-like, long, replete and long” (Chapter *Bianmaixingmingzhuang*). *Key Principles in Pulse Diagnosis* states, “A firm pulse is deep, large, string-like and replete. It is felt with neither light nor moderate pressure”.

Note 3 to entry: For further information, see [A.3.6](#).

6.7 floating pulse

浮脈

pulse which feels obvious with light touch but forceless with pressure

Note 1 to entry: The first origin is *(Huangdi's) Internal Classic*.

Note 2 to entry: *Pulse Classic* states, "With light touch, the pulsation is clearly felt; with heavy pressure, the pulsation becomes indistinct" (Volume 1), which was cited by *Binhu's Sphygmology. Essential Principles and Practice of Pulse Diagnosis* states, "A floating pulse feels superficial in the skin and body hair, just like a piece of wood floating on water. With light touch, the pulsation is clearly felt; with heavy pressure, the pulsation becomes indistinct". (Chapter *Fumaiyang*, 浮脈陽). *Key Principles in Pulse Diagnosis* states, "The word floating describes the feeling like a piece of wood floating on water. It is clearly felt by a light touch because it's located superficially in the skin and body hair; however, just like the wood floating on water, it goes deep on heavy pressure but goes up when the pressure is released" (Volume 3).

Note 3 to entry: For further information, see [A.3.7](#).

6.8 hidden pulse

伏脈

pulse which is deep and palpable only by pressing to the bones or tendons

Note 1 to entry: The first origin is *The Classic of Difficult Issues*.

Note 2 to entry: *Pulse Classic* states, "With light touch, the pulsation is indistinct; with heavy pressure, the pulsation is clearly felt" (Volume 1), which was cited by *Binhu's Sphygmology. Revised Verses in Pulse Diagnosis* by *Zhu Zhenheng* states, "A hidden pulse requires heavy pressure to the tendon and bones to feel clearly" (Chapter *Bianmaixingmingzhuang*). *Key Principles in Pulse Diagnosis* states, "A hidden pulse requires heavy finger pressing. It is hardly felt by light to moderate or even heavy pressure. It requires pressing to the bones and tendons to feel the pulsation" (Volume 4).

Note 3 to entry: For further information, see [A.3.8](#).

6.9 hollow pulse

芤脈

pulse which is superficial, large and hollow

Note 1 to entry: The first origin is *Treatise on Cold Damage and Miscellaneous Diseases* (《傷寒雜病論》).

Note 2 to entry: *Pulse Classic* states, "A hollow pulse is floating, large and soft. The centre is empty and the two sides are replete" (Volume 1). *Binhu's Sphygmology* also states, "its shape is comparable to a scallion." *Revised Verses in Pulse Diagnosis* by *Zhu Zhenheng* states, "A hollow pulse means the center is empty and the two sides are replete, just like the feeling of a scallion stalk" (Chapter *Bianmaixingmingzhuang*). *Key Principles in Pulse Diagnosis* states, "The pulse is given the name hollow because its shape is comparable to a scallion. It has both the floating and deep positions, only the center is empty when pressed" (Volume 4).

Note 3 to entry: For further information, see [A.3.9](#).

6.10 intermittent pulse

代脈

pulse which has missing beats and pauses longer rather than at regular intermittent intervals

Note 1 to entry: The first origin is *(Huangdi's) Internal Classic*.

Note 2 to entry: *Pulse Classic* states, "An intermittent pulse arrives fast, stops for a relatively longer period of time and then a recovery of movement" (Volume 1). *Corrections of Verse Errors in Pulse Diagnosis* states, "An intermittent pulse arrives fast, stops for a relatively longer period of time and then a recovery of movement" (Volume A). *Essential Principles and Practice of Pulse Diagnosis* states, "An intermittent pulse is constant and regularly intermittent, the stops are normal and frequent, they cannot be self-controlled, there are long stops and then a recovery of movement". *Binhu's Sphygmology* states, "An intermittent pulse arrives fast, stops for a relatively longer period of time and then a recovery of movement".

Note 3 to entry: For further information, see [A.3.10](#).

6.11

large pulse

大脈

pulse with a large width and forcefulness but without turbulent force

Note 1 to entry: The first origin is *(Huangdi's) Internal Classic*.

Note 2 to entry: *Guidelines for Disease Detection* (《察病指南》) states: "The large pulse arrives and departs large and full under the fingers". *Pulse Reason* (《脈理求真》) states: "The pulse is large and full, as well as long, and it's felt with little force on pressing."

Note 3 to entry: For further information, see [A.3.11](#).

6.12

long pulse

長脈

pulse which is straight and exceeds the three palpation fingers located in inch and cubit regions

Note 1 to entry: The first origin is *(Huangdi's) Internal Classic*.

Note 2 to entry: *Binhu's Sphygmology* states, "A long pulse is with long extent, longer than its basic position. It is straight and long like a pole." *Revised Verses in Pulse Diagnosis by Zhu Zhenheng* states, "A long pulse arrives and departs smoothly. It can be felt at all three positions." (Chapter *Bianmaixingmingzhuang*). *Essential Principles and Practice of Pulse Diagnosis* states, "A long pulse exceeds the original length. It is straight from head to tail. It is straight and long like a pole".

Note 3 to entry: For further information, see [A.3.12](#).

6.13

normal pulse

平脈

pulse which is felt in inch, bar and cubit regions, around 60 to 90 beats per minute

Note 1 to entry: The first origin is *(Huangdi's) Internal Classic*.

Note 2 to entry: Physiologically, a normal pulse in healthy people has about four beats in a normal cycle of respiration; the key elements of pulse (pulse location, pulse rate, pulse width, pulse length, pulse strength, pulse smoothness) are at medium level and pulse evenness is even. A normal pulse can correspondingly change along with changes in physiological activities and weather.

Note 3 to entry: For further information, see [A.3.13](#).

6.14

racing pulse

疾脈

pulse with more than 120 beats per minute

Note 1 to entry: The first origin is *The Treatise on Cold Pathogenic and Miscellaneous Diseases*.

Note 2 to entry: *Essential Principles and Practice of Pulse Diagnosis* states, "A racing pulse is extremely fast and rapid, with seven, eight or more beats in one breath (approximately 120 to 140 beats per minute, and the flow is thin and racing" (Chapter *Jimaiyang*, 疾脈陽). *Key Principles in Pulse Diagnosis* states, "A pulse that has at least six beats in one breath (>90 times per minute) is called racing or extremely racing pulse" (Volume 4).

Note 3 to entry: For further information, see [A.3.14](#).

6.15

rapid pulse

數脈

pulse with more than 90 beats per minute

Note 1 to entry: The first origin is *(Huangdi's) Internal Classic*.

Note 2 to entry: *Pulse Classic* states, “A rapid pulse refers to fast pulsations” (Volume 1). *Binhu’s Sphygmology* states, “A rapid pulse is six beats in one breath (90 beats per minute). The pulsations are rapid”. *Essential Principles and Practice of Pulse Diagnosis* states, “A rapid pulse is attributed to yang. The pulsations are extremely fast – six beats in one breath (90 beats per minute)”. The word rapid describes the feeling of fast-moving. Since qi moves 3 inches with exhalation (breathing out) and moves another 3 inches with inhalation (breathing in), qi moves 6 inches in one breath”.

Note 3 to entry: Traditionally, a rapid pulse is considered to be more than 5 or 6 beats within a cycle of respiration.

Note 4 to entry: For further information, see [A.3.15](#).

6.16 relaxed pulse

緩脈

pulse which is slower than a normal pulse but more rapid than a slow pulse, with about 60 beats per minute

Note 1 to entry: The first origin is (*Huangdi’s Internal Classic*).

Note 2 to entry: *Pulse Classic* states, “A relaxed pulse departs and arrives slowly; it is faster than a slow pulse” (Volume A), which was cited by *Binhu’s Sphygmology*. *Essential Principles and Practice of Pulse Diagnosis* states, “A relaxed pulse is four beats in one breath (60 times per minute). It arrives and departs evenly like gentle breeze in spring” (Chapter *Huanmaiying*, 緩脈陰). *Corrections of Verse Errors in Pulse Diagnosis* states, “A relaxed pulse arrives and departs slowly. It is faster than a slow pulse. With moderate to heavy pressure, it is soft and slow. It is smaller than a deep pulse. In addition, it is leisurely and soft” (Volume A).

Note 3 to entry: For further information, see [A.3.16](#).

6.17 replete pulse

實脈

pulse which feels forceful by both light touch or heavy pressure in inch, bar and cubit regions

Note 1 to entry: The first origin is (*Huangdi’s Internal Classic*).

Note 2 to entry: *Revised Verses in Pulse Diagnosis by Zhu Zhenheng* states, “A replete pulse is forceful with both light or heavy pressure. It is neither fast nor slow.” (Chapter *Bianmaixingmingzhuang*).

Note 3 to entry: For further information, see [A.3.17](#).

6.18 rough pulse

澀脈

pulse which feels stagnant, thready, slow and irregular

Note 1 to entry: The first origin is (*Huangdi’s Internal Classic*).

Note 2 to entry: *Binhu’s Sphygmology* states, “A rough pulse is thready and slow. It arrives and departs roughly. It is short and scattered, feeling like using a knife to scrape bamboo or a sick silkworm biting leaves” (Chapter *Qiyanjuese* 七言決澀). *Revised Verses in Pulse Diagnosis by Zhu Zhenheng* states, “A rough pulse is stagnant like rain touching the sand” (Chapter *Bianmaixingmingzhuang*). *Essential Principles and Practice of Pulse Diagnosis* states, “A Rough pulse is stagnant, like a blade scraping bamboo. It is slow, thready and short, all indicating obstruction” (Chapter *Semaiyin*, 澀脈陰).

Note 3 to entry: For further information, see [A.3.18](#).

6.19 short pulse

短脈

pulse which is shorter than the three palpation fingers located in inch, bar and cubit regions

Note 1 to entry: The first origin is (*Huangdi’s Internal Classic*).

Note 2 to entry: Note 2 to entry: *Pulse Classic* states, “The shape of a short pulse that beats felt under the fingers do not fill the three positions” (Volume A), which was cited by *Binhu’s Sphygmology. Revised Verses in Pulse Diagnosis by Zhu Zhenheng* states, “A short pulse feels rapid with light touch and pressure; however, the beats under the fingers do not fill the positions” (Chapter *Bianmaixingmingzhuang*). *Essential Principles and Practice of Pulse Diagnosis* states, “A short pulse is rough and small, its head and tail are both hidden; it protrudes at the centre, but cannot fill the positions”.

Note 3 to entry: For further information, see [A.3.19](#).

6.20 skipping pulse

促脈

pulse with more than 90 beats per minute and irregular beating

Note 1 to entry: The first origin is *Treatise on Cold Pathogenic and Miscellaneous Diseases*.

Note 2 to entry: *Treatise on Cold Pathogenic* states, “A skipping pulse arrives as urgent and skipping, sometimes there is a pause, skipping a beat” (Chapter *Bianmaifadiyi*). *Revised Verses in Pulse Diagnosis by Zhu Zhenheng* states, “A skipping pulse arrives and departs rapidly, sometimes there is a pause in its arrival”. (Chapter *Bianmaixingmingzhuang*). *Pulse Classic* states, “A skipping pulse arrives and departs rapidly and sometimes there is a pause in its arrival,” which was cited by *Binhu’s Sphygmology*.

Note 3 to entry: Traditionally, a skipping pulse is considered to be more than 5 or 6 beats within a normal cycle of respiration and irregularly interrupted.

Note 4 to entry: For further information, see [A.3.20](#).

6.21 slippery pulse

滑脈

pulse which smoothly comes and goes

Note 1 to entry: The first origin is (*Huangdi’s*) *Internal Classic*.

Note 2 to entry: *Pulse Classic* states, “A slippery pulse arrives and departs smoothly. It is similar to a rapid pulse” (Volume 1), which was cited by *Binhu’s Sphygmology. Essential Principles and Practice of Pulse Diagnosis* states, “A slipper pulse arrives and departs smoothly. Its form is like pearls rolling on a plate or dewdrops on a lotus” (Chapter *Huamaiyang*, 滑脈陽). *Key Principles in Pulse Diagnosis* states, “The word *slippery* describes the feeling of smooth movement, like pearls rolling on a plate or dewdrops on a lotus” (Volume 3).

Note 3 to entry: For further information, see [A.3.21](#).

6.22 slow pulse

遲脈

pulse with less than 60 beats per minute

Note 1 to entry: The first origin is (*Huangdi’s*) *Internal Classic*.

Note 2 to entry: *Pulse Classic* states, “A slow pulse is three beats in one breath. The pulsations are extremely slow” (Volume 1), which was cited by *Binhu’s Sphygmology. Essential Principles and Practice of Pulse Diagnosis* states, “A slow pulse is attributed to yin. The pulsations are extremely slow – three beats in one breath”. *Key Principles in Pulse Diagnosis* states, “The word *slow* describes the feeling of slow-moving. A normal pulse is four beats in one breath (60 beats per minute). A slow pulse is about three beats in one breath” (Volume 3).

Note 3 to entry: For further information, see [A.3.22](#).

6.23 soggy pulse

濡脈

pulse which is superficial, thready, soft and forceless, impalpable by heavy pressing

Note 1 to entry: The first origin is (*Huangdi’s*) *Internal Classic*.

Note 2 to entry: *Pulse Classic* states, “A soft (soggy) pulse is extremely soft, floating and thready” (Volume 1). *Book to Safeguard Life Arranged by Categorized Patterns* states, “The pulsation of a soggy pulse is indistinct with pressure and extremely small and soft with light touch” (Volume 2). *Key Principles in Pulse Diagnosis* states, “A soggy pulse is soft and thready with light touch. It is indistinct with moderate to heavy pressure” (Volume 4). *Revised Verses in Pulse Diagnosis by Zhu Zhenheng* states, “A soggy pulse feels like cotton in water, and light touch is suitable to feel it” (Volume 4). *Binhu’s Sphygmology* states, “A soggy pulse extremely soft, floating and thready” (from *Pulse Classic*) and “A soggy pulse feels like cotton in water, and light touch is suitable to feel it” (from *Revised Verses in Pulse Diagnosis by Zhu Zhenheng*).

Note 3 to entry: For further information, see [A.3.23](#).

6.24 stirred pulse

動脈

pulse which is smooth, rapid and forceful

Note 1 to entry: The first origin is (*Huangdi’s Internal Classic*).

Note 2 to entry: *Treatise on Cold Damage* states, “If a rapid pulse is seen at the bar region, with neither a head above or a tail below, like a bean turning, this is called a stirred pulse” (Chapter *Bianmaifadiyi*). *Pulse Classic* states, “A stirred pulse is seen at the bar region. It has neither a head nor a tail, like a bean turning and stirring” (Volume 1), which was cited by *Binhu’s Sphygmology*. *Essential Principles and Practice of Pulse Diagnosis* states, “A stirred pulse has neither a head nor a tail, stirring like a bean. It is slippery and rapid” (Chapter *Dongnaiyang*, 動脈陽). *Key Principles in Pulse Diagnosis* states, “A stirred pulse is stirring, rapid and forceful. It protrudes at the centre and is similar to a short pulse. However, a short pulse is attributed to yin, it is neither rapid, hard nor slippery. A stirred pulse is attributed to yang, it is rapid, hard and slippery” (Volume 4).

Note 3 to entry: For further information, see [A.3.24](#).

6.25 string-like pulse

弦脈

long and straight pulse with high tension

Note 1 to entry: The first origin is (*Huangdi’s Internal Classic*).

Note 2 to entry: *Pulse Classic* states, “A string-like pulse is felt by heavy pressure, like felt on a musical string” (Volume 1). *Binhu’s Sphygmology* states, “A string-like pulse is straight and long, and its physical form is felt like touching musical strings, and stiff under the fingers”. *Essential Principles and Practice of Pulse Diagnosis* states, “Wiry (string-like) is like the musical strings, with light force felt on the surface, yet straight and long, and stiff under the force of the fingers” (Volume 2). *Key Principles in Pulse Diagnosis* states, “Wiry (string-like) is like the musical strings, straight and long.” *Treatise on Cold Damage* states “The physical form of a wiry pulse is felt like touching musical strings, and stiff under the fingers” (Volume 2).

Note 3 to entry: For further information, see [A.3.25](#).

6.26 sunken pulse

沈脈

pulse hardly felt by a light touch but obvious by heavy pressing

Note 1 to entry: The first origin is (*Huangdi’s Internal Classic*).

Note 2 to entry: *Pulse Classic* states, “With light touch, the pulsation is indistinct; with heavy pressure, the pulsation is clearly felt” (Volume 1). *Binhu’s Sphygmology* states, “A sunken pulse is felt by heavy pressure to the tendons or bones. It feels like sandstones wrapped in a piece of cotton cloth – an iron hand in a velvet glove. It also feels like stones thrown into water, and the stones will hit the bottom”. *Key Principles in Pulse Diagnosis* states, “A sunken pulse is felt by pressing to the tendons or bones, just like dropping a stone into water. The pulsation is indistinct by light touch but becomes extremely clear by heavy pressure” (Volume 3).

Note 3 to entry: For further information, see [A.3.26](#).

6.27

surging pulse

洪脈

large, superficial and forceful pulse

Note 1 to entry: The first origin is (*Huangdi's Internal Classic*).

Note 2 to entry: *Pulse Classic* states, "A surging pulse feels extremely large" (Volume 1). *Binhu's Sphygmology* states, "A surging pulse feels extremely large (from *Pulse Classic*), just like roaring waves which come vigorously and fade away." *Essential Principles and Practice of Pulse Diagnosis* states, "A surging pulse is extremely large. On pressing, it is exuberant and full under the fingers. Like the strength of surging water, it arrives exuberant and departs debilitated, it arrives large and departs long, gushing against the fingers with force". *Revised Verses in Pulse Diagnosis by Zhu Zhenheng* states, "A surging pulse arrives large and departs long" (Chapter *Bianmaixingmingzhuang*).

Note 3 to entry: For further information, see [A.3.27](#).

6.28

tight pulse

緊脈

pulse which feels tense

Note 1 to entry: The first origin is (*Huangdi's Internal Classic*).

Note 2 to entry: *Plain Questions* (《素問》) states, "A tight pulse arrives and departs forcefully, and snaps left and right". *Pulse Classic* states, "A tight pulse is rapid like a large twisted rope" (Volume 1). *Binhu's Sphygmology* states, "A tight pulse arrives and departs forcefully, and snaps left and right" (from *Plain Questions*). *Treatise on Cold Damage* states, "A tight pulse is like a tightly twisted rope, unevenly stretched" (Chapter *Bianmaifadiyi*). *Revised Verses in Pulse Diagnosis by Zhu Zhenheng* states, "A tight pulse is like a tightly twisted rope" (Chapter *Bianmaixingmingzhuang*).

Note 3 to entry: For further information, see [A.3.28](#).

6.29

vacuous pulse

虛脈

pulse with a forceless feeling by light touch in all the three regions but a hollow feeling by heavy pressing

Note 1 to entry: The first origin is (*Huangdi's Internal Classic*).

Note 2 to entry: *Pulse Classic* states, "A vacuous pulse is slow, large and soft. With pressure, it is empty and deficient" (Volume 1), which was cited by *Binhu's Sphygmology*. *The Summary of Pulse Diagnosis* (《脈理集要》) states, "A vacuous pulse is empty and vacuous with light, moderate and heavy pressure" (Chapter *Mailixiangjiebian*, 脈理詳解篇). *Key Principles in Pulse Diagnosis* states, "The word vacuous means empty. A vacuous pulse is soft and weak" (Volume 3).

Note 3 to entry: For further information, see [A.3.29](#).

6.30

weak pulse

弱脈

extremely soft, deep and thready pulse, felt by a light touch but indistinct under heavy pressure

Note 1 to entry: The first origin is (*Huangdi's Internal Classic*).

Note 2 to entry: *Pulse Classic* states, "A weak pulse is extremely soft, deep and thready. It almost disappears with pressure" (Volume 1). *Binhu's Sphygmology* states, "A weak pulse is extremely soft, deep and thready. With light touch, it is not felt; with pressure, the pulsation can be felt." *Systematic Theory and Practice on Four Diagnostic Methods* states, "A weak pulse is thready and small and felt by heavy pressure. With light touch, it is not felt; with pressure, the pulsation can be felt" (Volume 7). *Revised Verses in Pulse Diagnosis by Zhu Zhenheng* states, "A weak pulse feels faint, soft and forceless" (Chapter *Bianmaixingmingzhuang*). *Corrections of Verse Errors in Pulse Diagnosis* states, "The word *weak* means not able to sustain or exert much weight. A weak pulse is not felt with light touch and similar to a soggy pulse" (Volume A).

Note 3 to entry: For further information, see [A.3.10](#).

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Annex A (informative)

Pulse diagnosis terms — Chinese, Japanese and Korean characters

A.1 Terms relating to the methods of pulse diagnosis

The current Chinese, Japanese and Korean characters and their phonetic transcriptions are as follows.

A.1.1 Arrangement of fingers

Chinese characters: 布指 (bù zhǐ)

Japanese characters: 布指 (ふし, fu shi)

Korean characters: 하지 (下指) (haji)

A.1.2 Individual-finger palpation

Chinese characters: 单按 (dān àn)

Japanese characters: 单按 (たんあん, tan an)

Korean characters: 단안 (dan an)

A.1.3 Simultaneous palpation with three fingers

Chinese characters: 总按 (zǒng àn)

Japanese characters: 総按 (そうあん, sou an)

Korean characters: 총안 (chong an)

A.1.4 Lifting

Chinese characters: 举 (jǔ)

Japanese characters: 举 (きょ, kyo)

Korean characters: 거 (geo)

A.1.5 Pressing

Chinese characters: 按 (àn)

Japanese characters: 按 (あん, an)

Korean characters: 안 (an)

A.1.6 Searching

Chinese characters: 寻 (xún)

Japanese characters: 尋 (じん, jin)

Korean characters: 심 (sim)

A.2 Terms relating to the key elements of pulse

The current Chinese, Japanese and Korean characters and their phonetic transcriptions are as follows.

A.2.1 Pulse location

Chinese characters: 脉位 (mài wèi)

Japanese characters: 脈位 (みやくい, myaku i)

Korean characters: 맥위 (maek wi)

A.2.2 Pulse rate

Chinese characters: 至数 (zhì shù)

Japanese characters: 至數 (しすう, shi suu)

Korean characters: 맥수 (脈數) (maek su)

A.2.3 Pulse length

Chinese characters: 脉长 (mài cháng)

Japanese characters: 脈長 (みやくちょう, myaku chou)

Korean characters: 맥장 (maek jang)

A.2.4 Pulse strength

Chinese characters: 脉力 (mài lì)

Japanese characters: 脈力 (みやくりよく, myaku ryoku)

Korean characters: 맥력 (maek ryeok)

A.2.5 Pulse width

Chinese characters: 脉宽 (mài kuān)

Japanese characters: 脈幅 (みやくふく, myaku fuku)

Korean characters: 맥폭 (maek pok)

A.2.6 Pulse smoothness

Chinese characters: 流畅度 (liú lì dù)

Japanese characters: 流暢度 (りゅうちょうど, ryuu chou do)

Korean characters: 유창도 (yu chang do)

A.2.7 Pulse tension

Chinese characters: 紧张度 (jǐn zhāng dù)

Japanese characters: 緊張度 (きんちょうど, kin chou do)

Korean characters: 긴장도 (gin jang do)

A.2.8 Pulse evenness

Chinese characters: 均匀度 (jūn yún dù)

Japanese characters: 均等性 (きんとうせい, kin tou sei)

Korean characters: 균등도 (均等度) (gyun deung do)

A.3 Terms relating to pulse condition

The current Chinese, Japanese and Korean characters and their phonetic transcriptions are as follows.

A.3.1 Bound pulse

Chinese characters: 结脉 (Jié mài)

Japanese characters: 結脈 (けつみやく, ketsu myaku)

Korean characters: 결맥 (gyeol maek)

A.3.2 Dissipated pulse

Chinese characters: 散脉 (sǎn mài)

Japanese characters: 散脈 (さんみやく, san myaku)

Korean characters: 산맥 (san maek)

A.3.3 Drumskin pulse

Chinese characters: 革脉 (gé mài)

Japanese characters: 革脈 (かくみやく, kaku myaku)

Korean characters: 혁맥 (hyeok maek)

A.3.4 Faint pulse

Chinese characters: 微脉 (wēi mài)

Japanese characters: 微脈 (ひみやく, bi myaku)

Korean characters: 미맥 (mi maek)

A.3.5 Fine pulse

Chinese characters: 细脉 (xì mài)

Japanese characters: 細脈 (さいみやく, sai myaku)

Korean characters: 세맥 (se maek)

A.3.6 Firm pulse

Chinese characters: 牢脉 (láo mài)

Japanese characters: 牢脈 (ろうみやく, rou myaku)

Korean characters: 노맥 (noe mack)