Pulse diagnosis

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http://www.CNacupuncture.com
http://www.AcupunctureForStroke.com
The radial pulse is felt on the wrist, just below the thumb.
When feeling for the carotid pulse under the angle of the jaw, use very light pressure
Pulse oximetry
Regions for taking pulse

- **Cunkou**, also known as "Qikou" (opening of Qi), is the usual pulse taking region, refers to pulsation of radial artery on the wrist.
- Pulse over Cunkou is divided into three parts: **Cun**, **Guan** and **Chi**,
- The left **Cun** pulse is corresponding **heart and Tanzhong** (the part between the breasts).
- The left **Guan** pulse is corresponding **liver and gallbladder**.
- The left **Chi** pulse is corresponding **kidney and the lower abdomen**.
- The right **Cun** pulse is corresponding **lung and thorax**.
图 1  Bio-ME 中医脉诊仪
脉象分析结果

姓名：AAA 性别：女 左右手：左 年龄：35 日期：2005.02.25

脉率：78次/分

浮沉度：5 虚实度：6 滑涩度：6 紧张度：7 均匀度：9

分析结果：脉率正常，脉律均匀。浮沉适中，最佳取脉在“中取”。脉来流利，力度较佳。左手之脉候“心肝肾”，脉象反映心气充足，肝脉微弦，肾脉沉取有力。

临床建议：肝脉微弦。弦脉主寒热诸邪，痰饮内蓄，七情不遂，或主疼痛。使肝失疏泄，气机失常，经脉拘急，血气敛束不伸。治以疏肝理气，兼顾护脾胃。方如柴胡疏肝散。

图 3 分析参考界面
图 2 脉象采集界面
The methods for taking pulse

• The following points should be borne in mind in taking pulse.

• **Time**

• **Calm breath**: Healthy people breathe 16 - 18 times one minute under normal conditions. And the pulse beats 4 - 5 times in a cycle of exhalation and inhalation, about **60 - 90 beats per minute**.

• **Posture**

• **Arrangement of fingers**

• **General pressure and single pressure:**
Lifting, pressing and searching

- **Lifting (Ju)** means light pressure;
- **Pressing (An)** means heavy pressure;
- **Searching (Xun)** means mobile moderate pressure which is used to look for the most obvious region of the pulse.
Normal pulses

- The normal pulse is neither floating nor sunken, neither fast nor slow, sensible with moderate pressure, usually beating 4 - 5 times in a cycle of breath (about 60-90 beats per minute), gentle in sensation, powerful in rebounding, moderate in size, regular in beating and varying with physical activities and environmental changes.
The characteristics of normal pulse

- The normal pulse is marked by gastric qi, spirit and root. **Gastric qi** means that the pulse is located at the middle, neither floating nor sunken, and regular in beating, moderate in size, gentle in sensation and floating. **Spirit** means that the pulse is soft, powerful and rhythmic. **Root** means that the chi pulse is powerful and constantly beating under heavy pressure.
Main factors to affect the normal puls

- Age, sex and body shape
- Daily life and psychological factors
- Seasonal, alternation of day and night and geographical factors:
- Besides, the changes of the anatomic position of the radial artery may shift the pulse normally at the Cunkou region to the dorsum of the hand from the chi region, known as oblique flying pulse. The pulse, shifted to the back of the Cunkou region, is called ectopic radial pulse.
Abnormal pulses

- There are five elements of abnormal pulse diagnosis:
  - **Position**---deep or superficial
  - **Frequency**---rapid or slow
  - **Morphology**---wide or thin, long or short, hard or soft, fluent or not
  - **Strength**---strong or weak
  - **Rhythm**---regular or irregular
According to depth

- **Floating (superficial) pulse (Fu Mai)**
  - Features: Sensible under light pressure, weak and constant beating under heavy pressure. It is marked by superficial beating.
  - Clinical significance: Floating pulse indicates external syndrome, floating and powerful pulse signifying external excess syndrome while floating and weak pulse manifesting external asthenia syndrome. Floating pulse can also be seen in internal asthenia syndrome due to con-sumption of essence and blood in chronic disease and external floating of deficient Yang.

- **Deep pulse (Chen Mai)**
  - Features: Sensible only under heavy pressure.
  - Clinical significance: Indicating internal syndrome. Sunken and powerful pulse signifies excess internal syndrome, while sunken and weak pulse shows deficient in-ternal syndrome.
浮脉模式示意图

浮脉特征：轻取即得，重按稍减（浅）
主病：表证，虚阳外越证
沉脉模式示意图

沉脉特征：轻取不应，重按始得（深）
主病：里证
According to frequency

- **Slow pulse (Chi Mai)**
- Features: Less than 4 beats in a breath cycle (<60/min).
- Clinical significance: Indicating **cold syndrome**. Slow and powerful pulse signifies excess cold syndrome, while slow and weak pulse shows deficient cold syndrome. Such a pulse condition is also seen in internal excess heat syndrome due to internal accumulation of pathogenic heat. Athletes with slow pulse are in a normal condition.
迟脉模式示意图

迟脉特征：脉来缓缓，息不足四（慢）脉搏频率＜60次/分
主病：寒证/里实热证
According to frequency

- **Rapid pulse (Shuo Mai)**
- Features: The pulse beats over 5 - 6 times in a breath cycle (>90/min).
- Clinical significance: Indicating heat syndrome. Rapid and powerful pulse signifies excess heat syndrome, while rapid and weak pulse shows deficient heat syndrome. Such a pulse condition is also seen in the syndrome due to external floating of deficient Yang.
数脉模式示意图

数脉特征：脉来急促，息五六至（快）脉搏频率＞90次/分
主病：热证（实热、虚热、假热）
According to frequency

• **Moderate pulse (Huan Mai)**
  
• **Features:** The pulse is moderate and powerful, beating 4 times in a cycle of breath; or moderate and sluggish, beating 4 times in a cycle of breath (60-70/min).

• **Clinical significance:** Indicating damp disease and weakness of the stomach and
According to morphology
According to wide or thin (width)

- **Surging pulse (Hong Mai)**
  - Features: Surging pulse is marked by wide size and full content, beating like roaring waves and sensibility under light pressure and surges as well as sudden flowing and ebbing.
  - Clinical significance: Indicating exuberant internal heat.
洪脉模式示意图

洪脉特征：脉形宽大，来盛去衰（大盛大落）
主病：阳、实、热证
According to wide or thin (width)

- **Thin pulse (Xi Mai)**
- **Features:** The pulse is as thin as a thread, weak and quite sensible under pressure.
- **Clinical significance:** Indicating deficiency of both Qi, Yin and blood, various overstrain and diseases due to pathogenic dampness.
细脉模式示意图

浮
12
10
8
6
4
2
0

g
中

沉
1  3  5  7  9  11  13  15  17  19  21

细脉特征：细小如线，应指明显（小）
主病：脉细无力——气血两虚    脉细而缓——脾虚湿阻
According to hard or soft

- Slippery pulse (Hua Mai)

- Features: The pulse is beating freely and smoothly like the movement of beads of an abacus.

- Clinical significance: Indicating retention of phlegm and fluid, dyspepsia and excess heat. Such a pulse condition is also seen among young and strong and pregnant people.
滑脉模式示意图

寸
关
尺

一息

滑脉特征：往来流利，应指圆滑（流利）
主病：脉滑而沉实——痰饮、食积　脉滑而数——实热证
青壮之年，脉滑和缓——常脉（气血充实）
妇人停经，脉滑冲和——妊娠（聚血养胎）
According to hard or soft

- **Wiry pulse (Xuan Mai)**
- **Features:** Wiry pulse appears straight, energetic and hard like the feeling of pressing the string of a violin.
- **Clinical significance:** Indicating disorders of the liver and gallbladder, pain syndrome and retention of phlegm and fluid.
弦脉模式示意图

弦脉特征：弦直以长，如按琴弦（硬）。
主病：肝胆病 / 脘痛证 / 瘦饮病 / 老年健康人
① 寒郁肝脉——脉弦紧； ② 肝火上炎——脉弦数
③ 瘦饮内积——脉弦滑； ④ 肝气犯脾——脉弦缓
⑤ 肝肾阴虚——脉弦细； ⑥ 胃气衰败——脉弦刃
According to hard or soft

- **Tense pulse (Jin Mai)**
  - **Features**: Tense pulse appears like the pulling of a rope and flicks the finger when pressed.
  - **Clinical significance**: Indicating cold syndrome, pain syndrome and retention of food.
According to hard or soft

- **Soft/soggy pulse (Ru Mai)**
- Features: Superficial, soft, weak and thin, become weak under heavy pressure.
- Clinical significance: Indicating insufficiency of qi and blood, and dampness syndrome.
- This pulse is similar to the fine and weak pulses. The thready pulse sensation felt on light touch gives the impression of being easily moved, as if floating on water; hence, it tends to indicate spleen-qi deficiency with accumulation of dampness.
According to fluency

• **Astringent/choppy pulse (She Mai)**

• **Features:** The pulse is beating in an inhibited way like scraping a piece of bamboo.

• **Clinical significance:** Astringent and powerful pulse indicates qi stagnation and blood stasis; astringent and weak pulse signifies lack of essence and insufficiency of blood.
涩脉模式示意图

涩脉特征：脉细迟不畅，律力不匀（不畅不匀）
主病：涩脉有力——气滞血瘀；
       涩脉无力——精亏血少。
According to Strength

• Weak pulse (Xu Mai)
• Features: Weak pulse is marked by weak beating of the pulse at all the cun, guan and chi regions.
• Clinical significance: Indicating asthenia syndrome, usually seen in asthenia of both qi and blood, especially in Qi asthenia.
虚脉特征：举之无力，按之虚软（无力）
主病：虚证（多为气血两虚）
① 脉软无力——气虚；  ② 脉细无力——血虚
③ 脉迟无力——阳虚；  ④ 脉数无力——阴虚
According to Strength

- Powerful pulse (Shi Mai)
- Features: Powerful pulse is marked by powerful sensation of pulse beating at cun, guan and chi regions under superficial, moderate and heavy pressure.
实脉模式示意图

寸 关 尺

浮 12

中 10

沉 8

脉特征：举按有力，应指充盈
主病：实证
- 脉实浮数——实热证，表实证
- 脉实沉迟——实寒证，里实证
久病体虚，反见脉浮——阳气外脱（预后不良）
平人脉浮，且兼和缓——气血旺盛（体质偏强）
平人脉浮、平脉——六阳脉（平脉）
According to Rhythm

• **Hurried (Rapid and irregular pulse, Cu Mai)**
  - Features: Rapid and intermittent pulse beats fast with occasional and irregular intermittence.
  - Clinical significance: Fast and powerful pulse indicates hyperactivity of yang heat, qi stagnation, blood stasis and retention of phlegm and food; fast and weak pulse signifies weakness of visceral qi and insufficiency of blood.
促脉模式示意图

促脉特征：脉数有歇止，止无规律（数止无定数）
主病：阳盛实热/实邪阻滯
According to Rhythm

• **Knotted (Slow and irregular pulse, Jie Mai)**
  
  • Features: The pulse beats slowly with occasional and irregular intermittence.
  
  • Clinical significance: Slow, intermittent and powerful pulse indicates predominance of yin, qi stagnation, retention of phlegm, and blood stasis; while slow, intermittent and weak pulse signifies declination of qi and blood.
结脉模式示意图

结脉特征：脉慢有歇止，止无规律（迟止无定数）
主病：阴盛气结（血瘀、痰闭、食阻、寒凝）
According to Rhythm

• Features: The pulse beats slowly with regular and longer intermittence.
• Clinical significance: Indicating declination of visceral qi and asthenia of primordial qi.
代脉模式示意图

代脉特征：脉缓有歇止，止有规律（缓止有定数）
主病：脉代无力——脏气衰微（时间较长）
脉代有力——痹伤七情（时间较短）