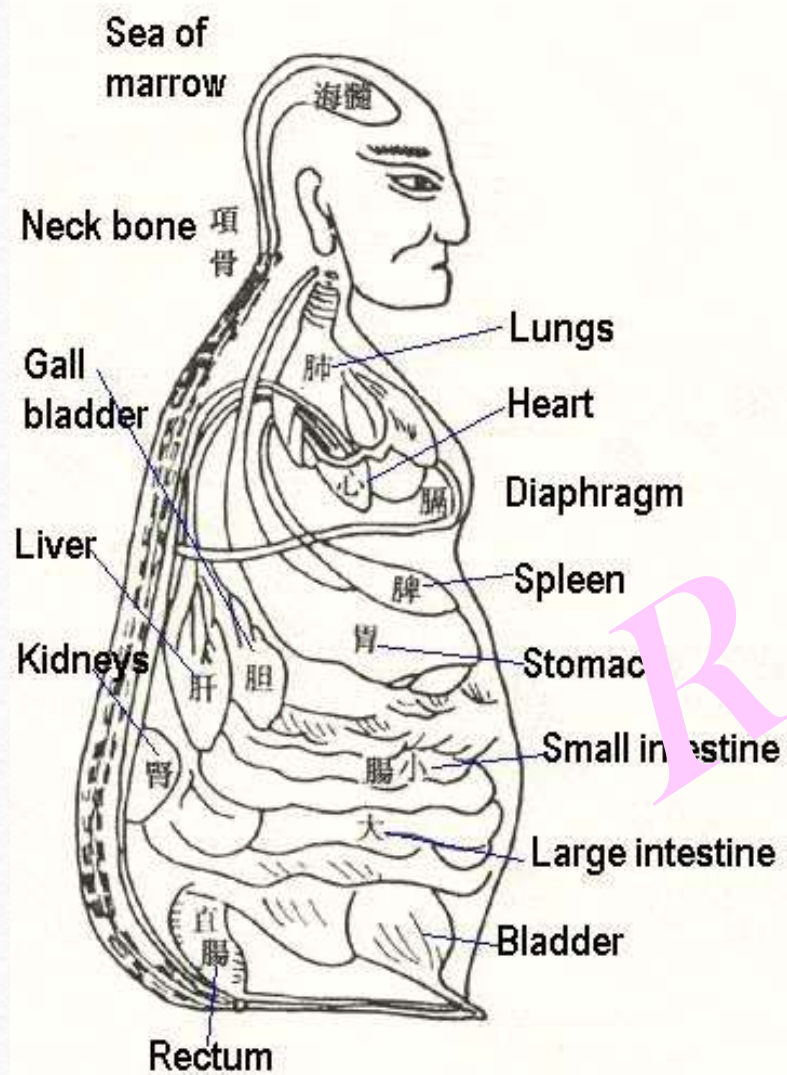


Heart 心

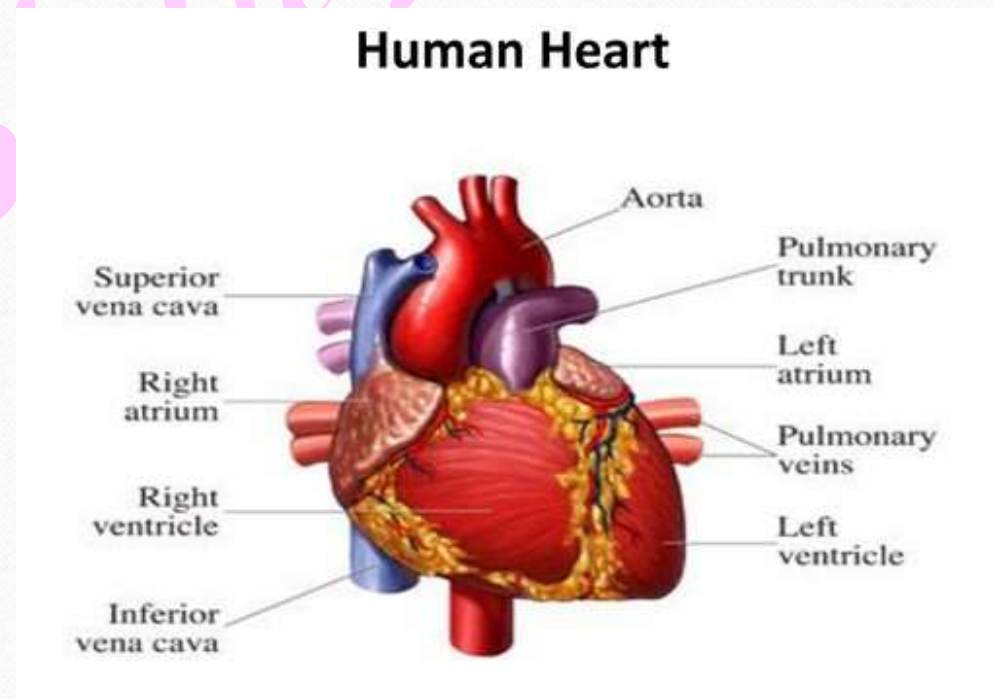


《難經》

心重十二兩，
中有七孔三毛，
盛精汁三合，主
藏神

Western Heart

- In TCM, the functions of the heart are different from those of the anatomical heart, as it is understood in western medicine. The heart organ represents a group of physiological functions. In addition to regulating the cardiovascular system, it is responsible for maintaining the nervous system's functions.



[heart anatomy](#)

[cardiac landmarks](#)

Heart

- **Monarch organ**
 - **Root of life**
 - **The monarch of five zang organs and six fu organs**
- 君主之官
 - 生之本
 - 五臟六腑之大主

Heart

心在五行屬火，以陽藏而通於夏氣，故為陽中之太陽。

心在體合脈、其華在面、開竅於舌、寄竅於耳、在液為汗、在志為喜。

- **Governs the Blood**
- Controls the Blood Vessels
- Manifests in the Complexion
- *Stores the Shen (Houses the Mind)*
- Opens to the tongue
- Controls Sweat
- Fire
- Red
- Summer
- Joy
- Controls Dreams and sleep
- **Loathes Heat**

心主血脈 Governs the Blood

- Transformation of Gu Qi (Food Qi) into Blood occurs in Heart (reddening of the blood)
- Responsible for smooth flowing of Blood
- Heart must be healthy for proper supply of Blood to all tissues. When Heart Qi impaired, i.e., Heart Blood or Qi is deficient, circulation of Blood is affected (hands cold).

Heart Propels Blood to Circulate

- The Heart Qi and Heart Yang has a warming and propelling function of heart-Yin.
- Heart Yang guarantee normal beat of the heart and continuous circulation of blood
- Sufficiency of heart-qi, heart-blood, heart-yin, heart-yang; guarantee the normal beat of heart and continuous circulation of blood to nourish all parts of the body .

If it goes wrong

- If heart Qi, Heart Blood, Heart-Yin and Heart-Yang are insufficient or in disturbance, the function of the heart to govern the vessels will be affected, leading to a series of pathological changes
- *pale complexion and thin and weak pulse due to insufficiency of heart-Qi*
- cyanotic complexion and unsmooth pulse or **slow** pulse with **irregular** intervals or **slow regular** intermittent pulse due to stagnation of heart-blood

化赤 Reddening

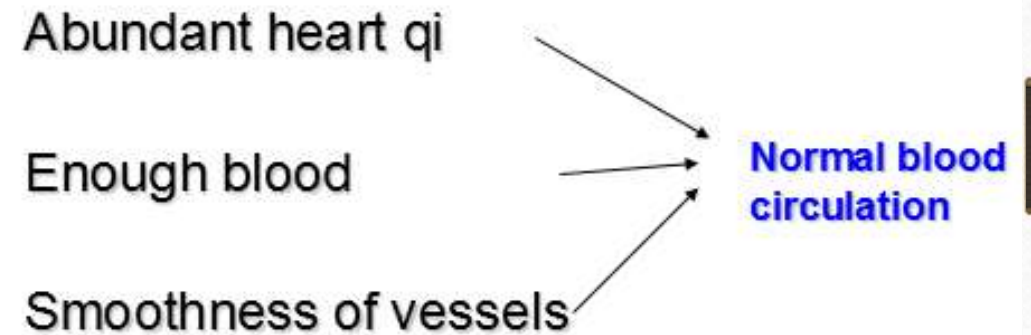
- The heart also plays a role in the production of blood known as “reddening” in TCM. After digestion and absorption of food by the spleen and stomach, the refined nutrients are transported up to the heart and the lung.
- Combined with the fresh air inhaled into the lung, **warmed and steamed by heart-Yang**, these refined nutrients are transformed into blood.

Heart in Production of Blood

- The heart has a “reddening” (化赤) transforming the Food Qi from Spleen and Stomach, the refined nutrients are transported up to the heart and lung.
- Combined with fresh air inhaled into the lung, warm and steam by heart yang and transform into blood.

Controls the Blood Vessels 心主血脈

- Blood Vessels (not same as in Western Medicine) depend on Heart Qi and Blood, i.e., if Heart strong and Blood plentiful, pulse will be full and regular. ***If Heart Qi or Blood is weak, pulse may be irregular/weak (choppy).***



心主神明 (心主神志) Stores the Shen

- In a broad sense means the exterior manifestation of life activities (e.g. posture, complexion, eye contact, speech, responds, diet etc) {body language}
- In a narrow sense refers to mental activities, spirit is a collective term for cognition, thinking consciousness and mental states. The idea that **heart controls mind** means that the **heart governs mental activities**.
- Mental activities are closely related to the **response of brain** to external environment and certain intrinsic functions of the brain. Centering around the five zang-organs, TCM attributes the motivation of mental activities to the heart. It is obviously that the conception of heart in TCM includes certain functions of the brain.

Continue...

- When there is abundant Heart Blood and Yin: Shen will be nourished. Individual will respond appropriately to the environment and Shen will retire to the Heart.
- Weak Heart Qi, Deficient Blood or Heat in Heart: Shen is not nourished. Symptoms vary, may include dull thinking, poor memory, insomnia, sleepiness, or (esp. with Heat) agitation, mania and delirium.

Heart Control the mind

- Normal function of heart to control the mind depends on the nourishing and moistening function of heart-blood and Heart-yin which are the essential substantial bases for mental activities.
- Heart Qi and Heart Yang function to activate and stimulate heart spirit, which also plays important role in ensuring the normal function of the heart to control the mind.

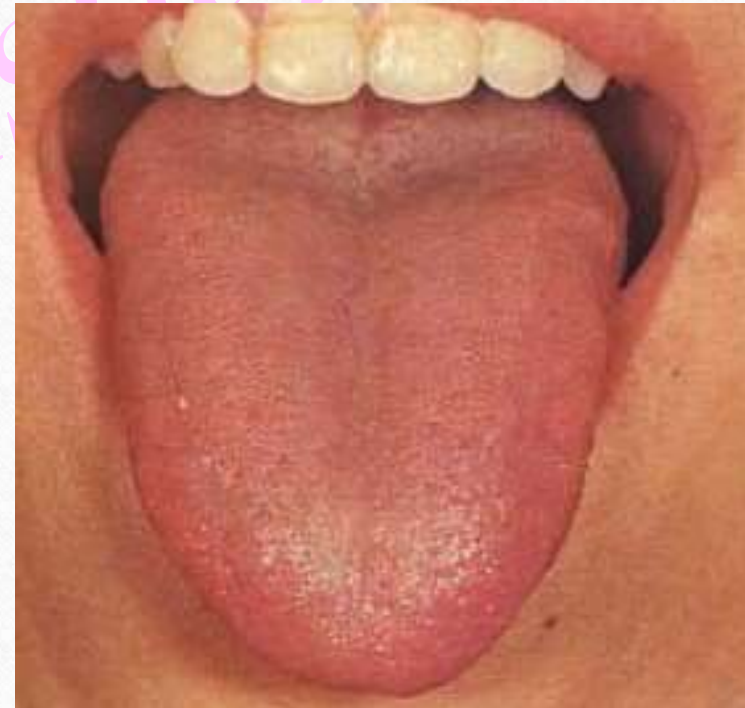
Cont...

- If the function is normal, people will be full of vigor, conscious in mind, agile in thinking and keen in response.
- If function is abnormal due to insufficiency or disturbance of Heart-Qi, Heart-Blood, Heart-Yin and Heart-Yang, it will inevitably lead to palpitation, insomnia, dreaminess or even coma, delirium and unconsciousness

Relationship between heart and body

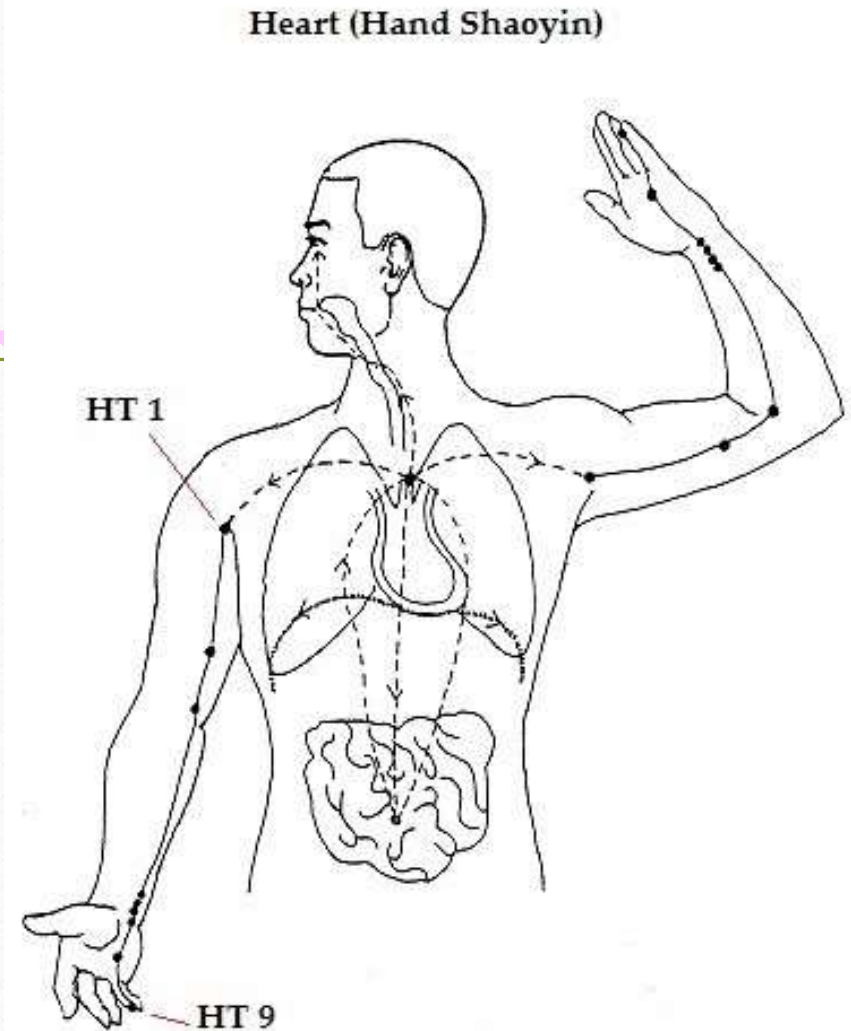
開竅於舌 Opens to the Tongue (the offshoot of the heart)

- The Heart has a large influence on the color, form, and features of the tongue, and is represented in the **tip of the tongue**. The normal tongue is a pale red (rosy) color, and the sense of taste is normal.



Opens in Tongue

- This idea indicates that there is a special relationship between heart and the tongue.
- A branch of heart meridian runs into the tongue.



Opens in Tongue

- Heart Blood displays itself on the tongue
- Heart spirit directly influences the sensation and the movement of the tongue.
- That's is why it is said “舌為心之苗” (Tongue is sprout of the heart) in TCM
- Heart qi, heart blood, heart yin, heart yang are normal then tongue is red and lustrous and appear agile in movement, soft in texture, keen in taste and fluent in speaking (**shape – sensations and movements**).

Pathology

- Insufficiency of heart blood leads to lightly whitish tongue without taste
- **Heart fire** blazing upward will bring deep coloured tongue or **ulcerated tongue**
- **Heart spirit abnormal (shen disturbances) resulted in curled tongue, stiff tongue and dysphasia,**

Aphasia

其華在面 Manifests in the Complexion

If Heart Blood is abundant, there will be a rosy and lustrous complexion.

Deficient Heart Blood: pale chalky complexion (plus other signs e.g. palpitations).

- Deficient Heart Qi or Heart Yang: white complexion
- Stagnant Heart Blood: Bluish purple complexion

Controls Sweating 在液為汗

- Body Fluids and blood share a common origin and are interdependent. Because the Heart governs Blood and there is a mutually sustaining relationship between blood and fluids, sweat is related to the heart.
- **Sweat** production, however, relies on the process of **distilling pale fluid** from the blood by "**steaming**" **transformation**. As is observed in the *Neijing*: "A person who has lost large quantities of blood does not sweat anymore, and the one that has lost large quantities of sweat does not have any blood anymore."
- Comprising a transformed blood material, sweat is therefore considered to be quite a precious substance in the Chinese tradition, while it is generally ignored, or simply considered a bothersome part of life.

sweat glands

在志為喜 Emotion is Happiness

- The difference between 喜^{xi} and 樂^{le} is that, xi is a **happiness** closer to **euphoric** state, and le is a more harmonious form of joy
- Euphoria or ‘excess of joy’ is expressed in the patient mostly as a state of excitation, possibly slight, but continuous – a form of being constantly ‘out of bounds’
- Such people are generally hyperactive, they communicate a sense of nervousness, they fill their lives with commitments and amusements, and often the more they are agitated the more they have to do (hypo-manic !!.)

Cont...

-
- Specific indicator is a slight laugh at the end of a sentence even when communicating painful events.
 - In Huang Di Nei Jing: People who are excessively happy, shen is dispersed cannot be stored
 - 《黃帝內經·靈樞》曰："喜樂者，神蕩散而不藏"
 - The qi is no longer united, it loses its centre, and everything escapes. As the harmony of the heart and its integrating action is diminished, the whole breaks apart.

Pathology

- The patient suffers from internal agitation, complaining of not being able to concentrate, sleeps poorly, has no sense of where he actually is or cannot recognize his part in what is happening around him
- In extreme cases the various personality parts fragment explosively; these are delirious state of psychosis, where the patient loses all grasp of reality (Schiz.!!).

ADHD

psychosis

Heart and Lungs

- Heart governs Blood, Lungs govern Qi: relationship is that of Qi and Blood.
- Qi and Blood are interdependent. **Blood nourishes Qi but Qi pushes the Blood (Qi is the command of blood and blood is the mother of Qi).**
- Heart moves the Blood but relies on Lung Qi to assist.
- *Lungs produce Ying (and Wei) Qi. Ying Qi flows with the Blood in the Vessels.*
- Heart and Lung connect via the Zong (clear – air) Qi (Chi of the Chest)

Cont..

- Deficient Lung Qi can lead to stagnation of Qi in the Heart and this can lead to stagnation of Blood of the Heart, with symptoms such as palpitations, chest pain, blue lips.
- Excessive Heart Fire can dry up Lung fluids and cause dry cough, dry nose and thirst.
- **In practice, Heart and Lung Qi are often deficient** at the same time because of their close relationship.
- **Sadness often depletes both Lung and Heart Qi.**

“

Heart and Spleen

”

-
- Production (making) of blood by SP
 - Circulation of blood by HT

Heart and Liver

- The heart and the Liver are related via Blood.
- Heart governs Blood, Liver stores Blood and regulates its volume. These two activities must be coordinated and harmonized. If Heart Blood is deficient, this may disrupt Liver's ability to regulate Blood (**dizziness, excessive dreaming**).

Cont...

- **Deficient Liver Blood** can cause **Deficient Heart Blood** (palpitations and insomnia).
- Heart stores Shen and Liver rules smooth flowing of the emotions.
- Shen and emotions mutually support each other. *Weak Heart and Shen* may lead to *depression and anxiety*. Or, when **Liver Qi stagnates (common clinical symptom)**, this constrains emotions and can weaken the Shen.

Heart and Kidneys

- Mutual assistance of Fire and Water.
- Heart belongs to Fire element and is in Upper Burner. (Fire is Yang and corresponds to movement).
- Kidneys belong to Water element and are in Lower Burner. (Water is Yin and corresponds to stillness).
- Heart & Kidney must be in balance as they represent two fundamental polarities of Yang and Yin (Fire & Water).
- Heart Yang descends to warm Kidney Yin while Kidney Yin ascends to nourish Heart Yang. This constant interchange is referred to as "**mutual support of Fire and Water**". i.e.:
Harmonize heart to the kidney (KD-9)

Heart and Kidneys

Kidney Yang Deficient:

- Kidneys cannot transform fluids
- Can't steam fluids; these can overflow upward to Heart up to CHF.

Kidney Yin Deficient:

- Yin cannot rise to nourish Heart Yin. This can cause overactive Heart Fire (mental restlessness, insomnia, agitation, etc.)

Both these situations represent loss of communication between Heart and Kidney (disharmony).

Heart and Kidneys are Common Root of Shen and Essence (Jing). The Heart houses Shen, while the Kidneys store Jing.

Heart and Small Intestine

- The heart is paired with the small intestine, interconnected by the luo vessels.
- The small intestine receives partially digested food residue from the stomach and proceeds with the process of digestion by separating it into "pure" and "impure" substances, thus providing its transfer functions. Pure essence is being recirculated to the spleen, which is in charge of transporting it to the five organ networks where it can be stored. Fluids reabsorbed from the dregs are being passed on to the bladder, which stores and expels surplus liquid from the body. Solid waste matter is transmitted to and expelled via the large intestine.

Jing and Shen 精神

- *Shen and Jing have common root. Jing is fundamental substance from which Shen is derived, in other words, Shen is external manifestation of Jing.*
- Prenatal Jing is the foundation of the Shen, Postnatal Jing provides nourishment for the Shen.
- Normal mental activity needs good supply of Jing.
- **Weak Jing: Shen will be weakened and person will lack vitality, willpower, self confidence.**
- When Shen is disturbed by emotional problems, Jing will not be directed by the Shen and the person will feel tired and lack motivation.