

# TONGUE DIAGNOSIS

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# INTRODUCTION

Observation of the tongue, also known as tongue diagnosis, is an important procedure in TCM examination. Tongue diagnosis is quite objective.

It includes observing the tongue body-color, tongue body-shape and the coating

The tongue reflects the state of the internal organs, Qi and Blood

# CONDITIONS FOR EXAMINING THE TONGUE

## 1. Lighting:

- Proper lighting is absolutely essential for a correct examination of the tongue and the only good lighting is natural light on a sunny day.
- The room where the patient is examined should have an abundant source of light.
- One of the best artificial lights is the halogen bulb

# CONDITIONS FOR EXAMINING THE TONGUE

## 2. Techniques of Observation:

- Do not ask the patient to hold the tongue out for longer than 15 seconds because the longer the tongue is extended the darker it will tend to become. If we need longer than 15 seconds to observe the tongue, we should ask the patient to withdraw the tongue, close the mouth and extend the tongue again; this can be done several times without affecting its body color.



# CONDITIONS FOR EXAMINING THE TONGUE

- The tongue should be extended in a relaxed manner.
- Some patients may brush their tongue. Ask the patient not to brush it, at least the day of their TCM tongue diagnosis.
- The coating usually becomes thinner as the day progresses while the color becomes more red and shiny.
- In elderly, Qi and Blood deficiency are more common, so the tongue may be present with dryness and cracks.
- Infants tend to have a thick coating that is easily removed.
- Overweight patients usually have more Damp and or Phlegm. Their tongues may be larger and lighter in color.

# CONDITIONS FOR EXAMINING THE TONGUE

- It is very important to examine the tongue following a systematic order of observation:
  1. Tongue-body color
  2. Tongue-body shape
  3. Coating
  4. Tongue spirit

# CONDITIONS FOR EXAMINING THE TONGUE

## 3. External Factors affecting the color:

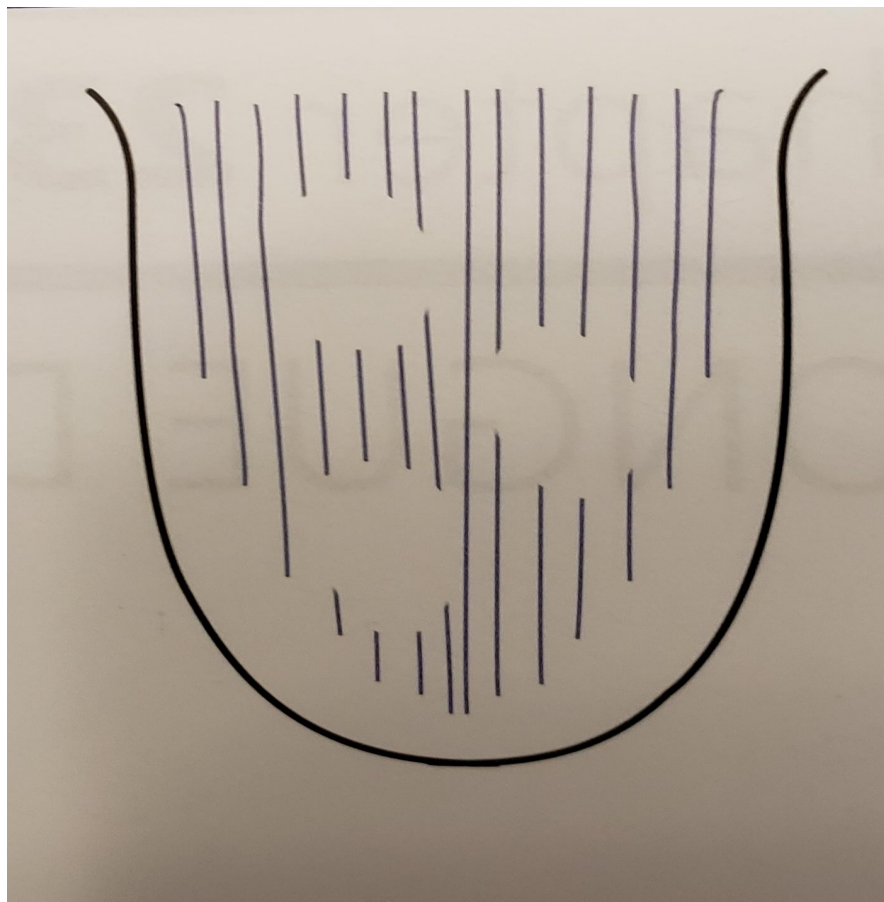
The most obvious external factors affecting the color of the tongue are:

- Highly colored foods, sweets, and drinks: If a patient's tongue has an unusual bright color, always ask what she/he has been eating.

Spicy foods such as cayenne pepper and curry make the color of the tongue slightly redder

# CONDITIONS FOR EXAMINING THE TONGUE

- Tobacco smoking usually colors the coating yellow and in regular smokers this is permanent.
- Medicines: some medicines affect the color of the tongue. **Antibiotics** tend to make the tongue partially peeled (loss of patches of coating). The effect could last for 2 weeks after stopping the course.
- **Oral corticosteroids** tend to make the tongue red and swollen, while bronchodilators (Salbutamol) may cause the tip of the tongue to become red after many years.



Partially peeled tongue from antibiotics

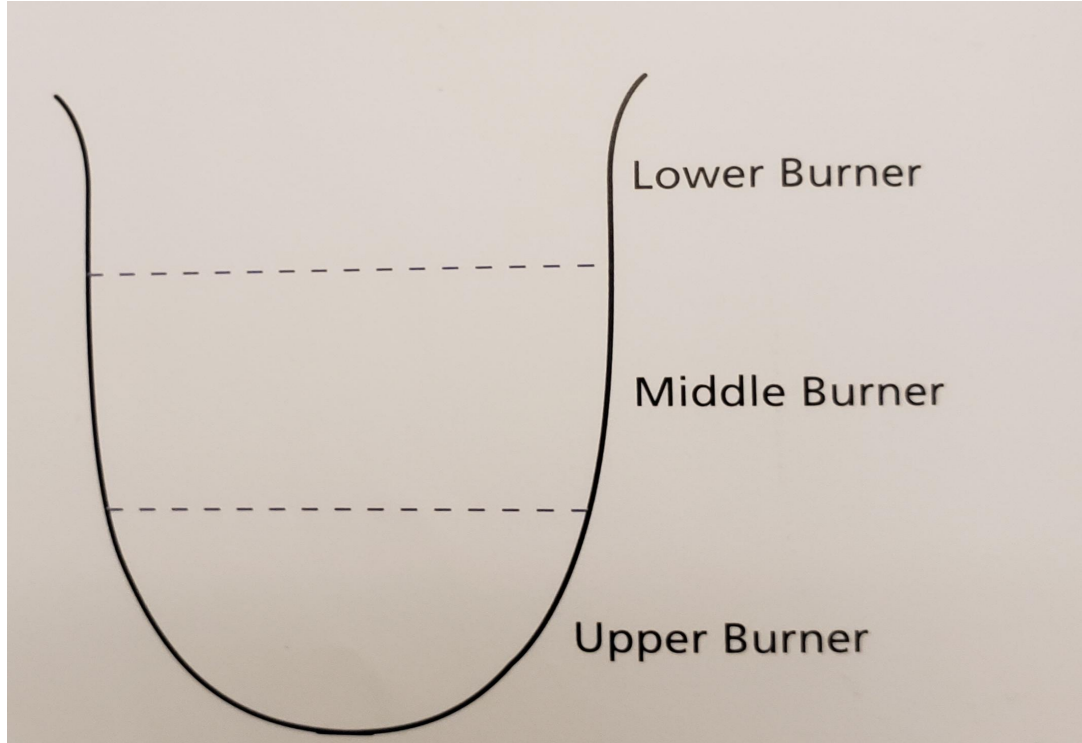
# CONDITIONS FOR EXAMINING THE TONGUE

- **Anti-inflammatory** drugs as Phenylbutazone cause the tongue to develop red points.
- Most **cytotoxic** drugs used for cancer tend to create a thick , dark-yellow or brown coating and also make the tongue-body red

# CONDITIONS FOR EXAMINING THE TONGUE

- In Summer there may be more Dampness in the tongue coating (thicker and slight yellow)
- In Fall the tongue may be thinner with a dry coating
- In Winter there may also be moist or Damp in the tongue
- In Spring the tongue should be normal

# AREAS OF THE TONGUE

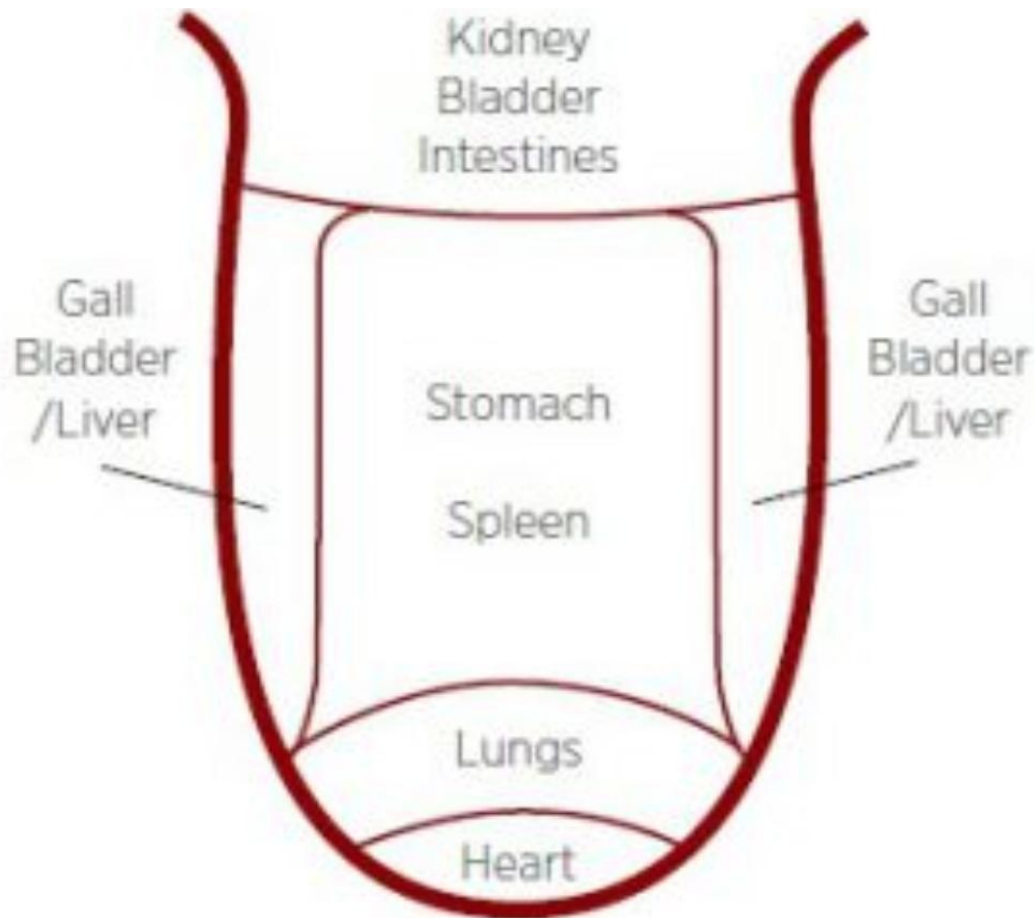


Divisions of the tongue according to the Three Burners

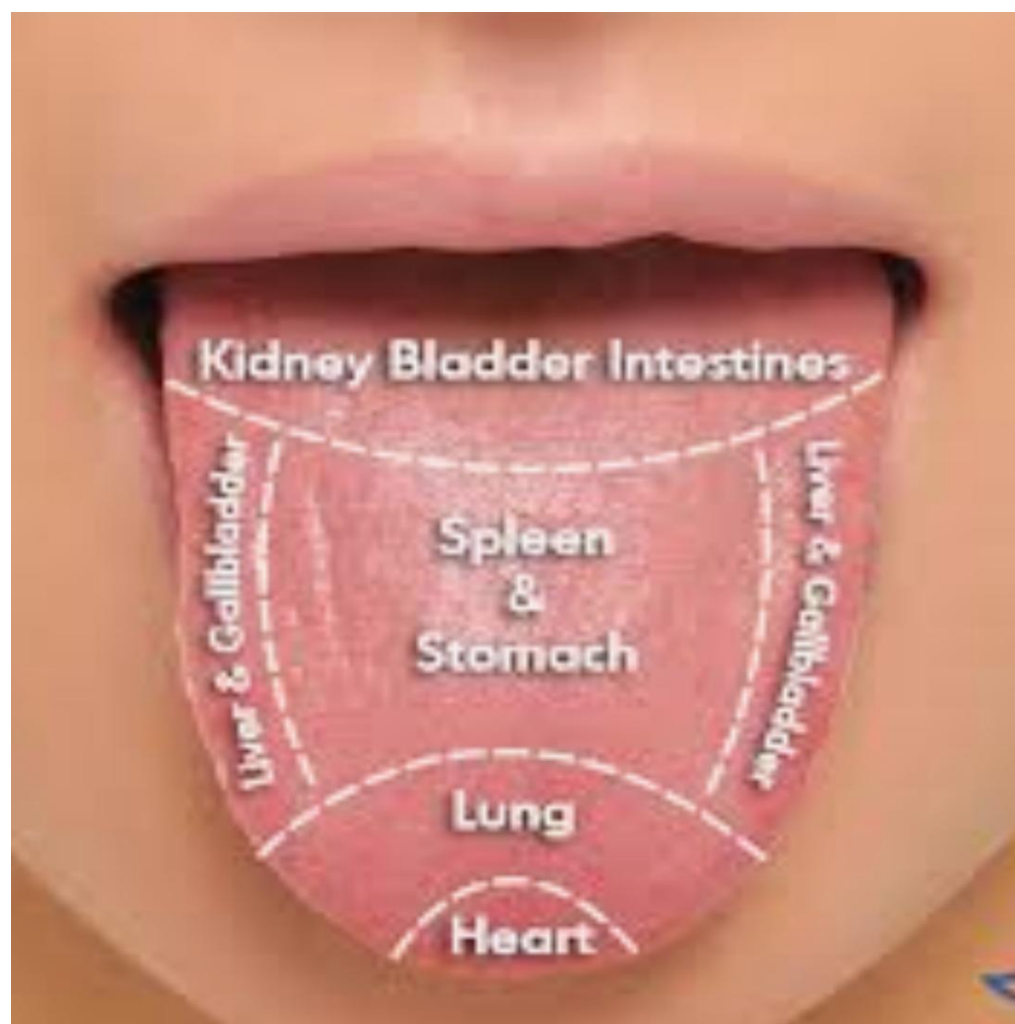


# AREAS OF THE TONGUE

1. The front third reflects the state of the Heart and Lungs
2. The middle third reflects the state of the Stomach, Spleen, Liver and Gallbladder.
3. The rear third reflects the state of the state of the Kidneys, Bladder and Intestines.



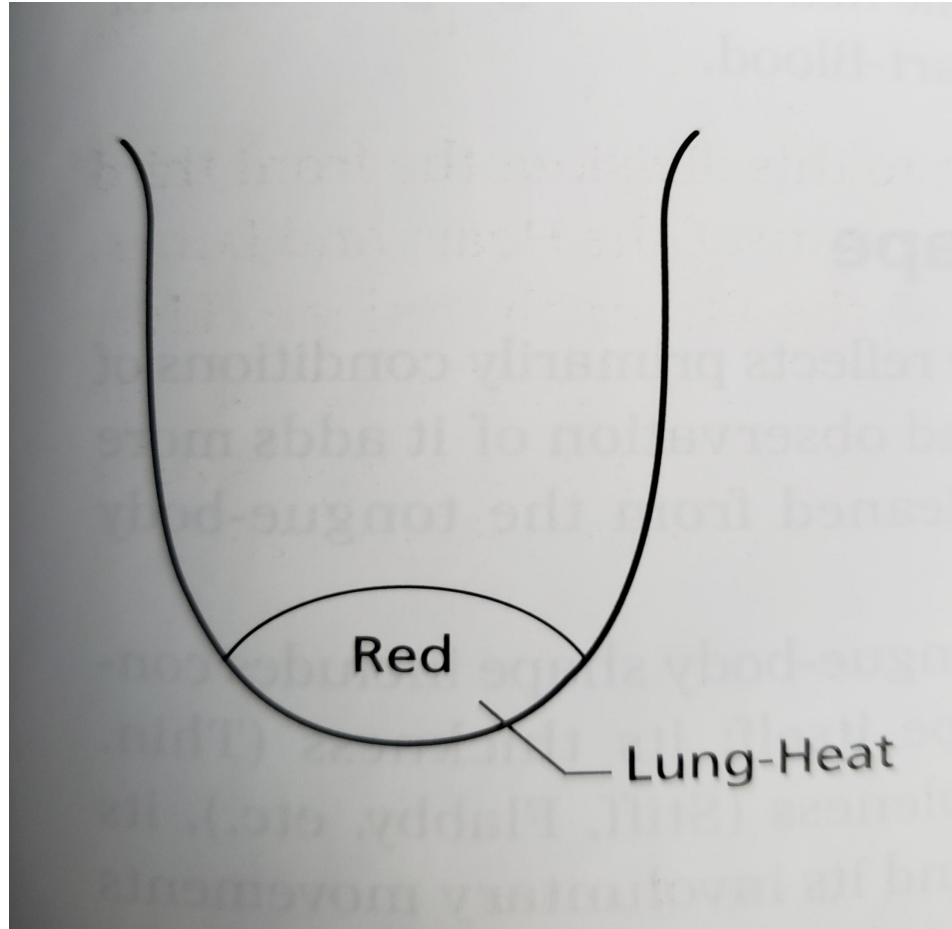
Divisions of the tongue according to the Internal Organs

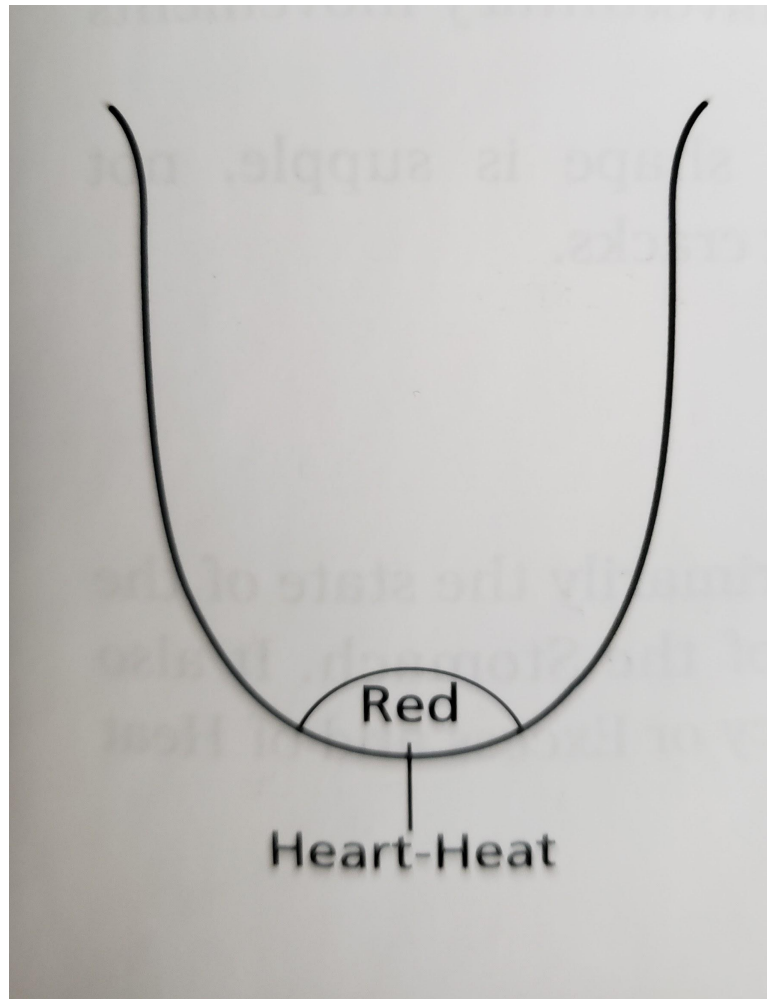


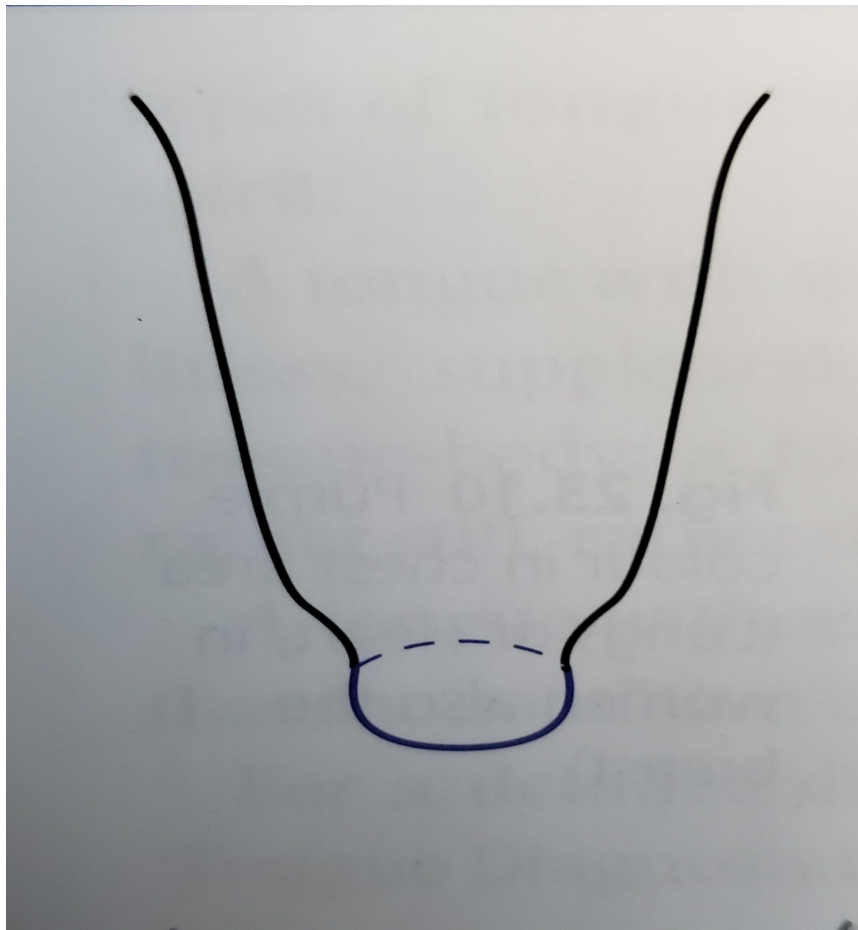
# AREAS OF THE TONGUE

The relative position of the **Heart and Lung** areas on the tongue should be explained in relation to redness, swelling, cracks, or purple color:

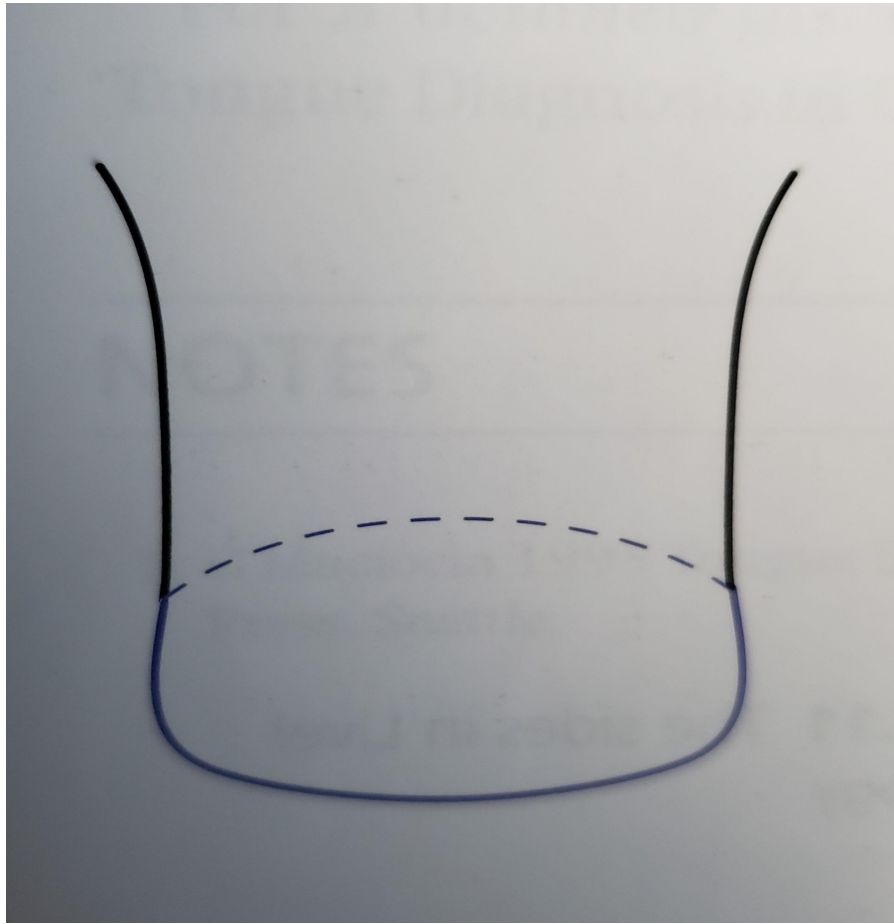
1. **Redness:** when there is Lung-Heat, this will make the whole front of the tongue red including the Heart area. When there is Heart-Heat only the tip of the tongue becomes red.
2. **Swelling:** A swelling of the tip itself indicates a Heart pathology, usually Heart-Heat. A lung related swelling usually appears either in the whole front third or in the sides between the Heart area and the Stomach and Spleen area
3. **Cracks:** Lung cracks are usually located in the area between the tip and the center





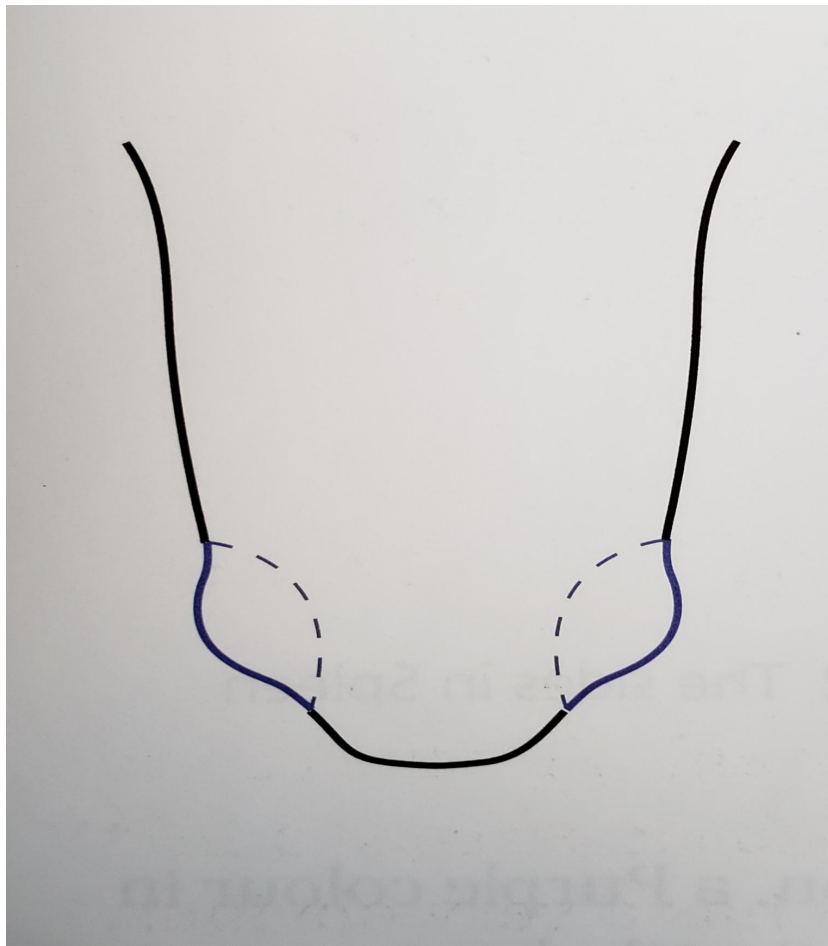


Swelling in the Heart area

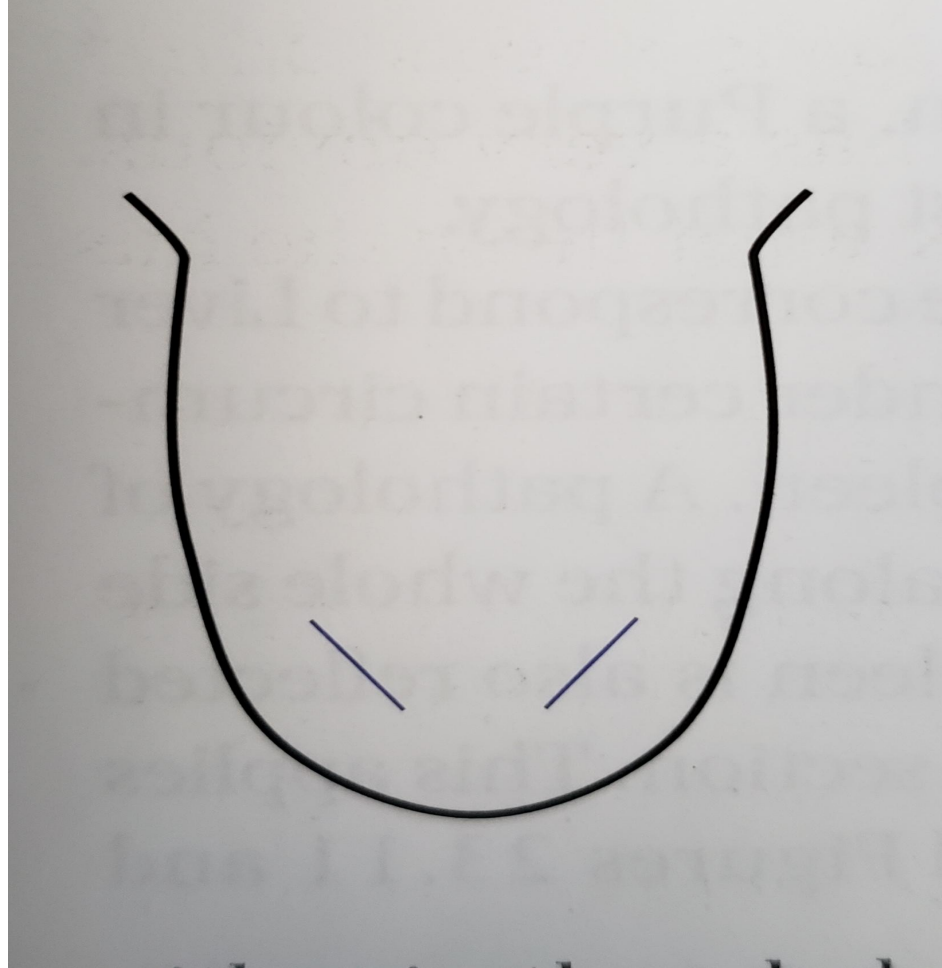


Swelling in the Lung area (front third)





Swelling in the Lung areas (sides)



Lung cracks

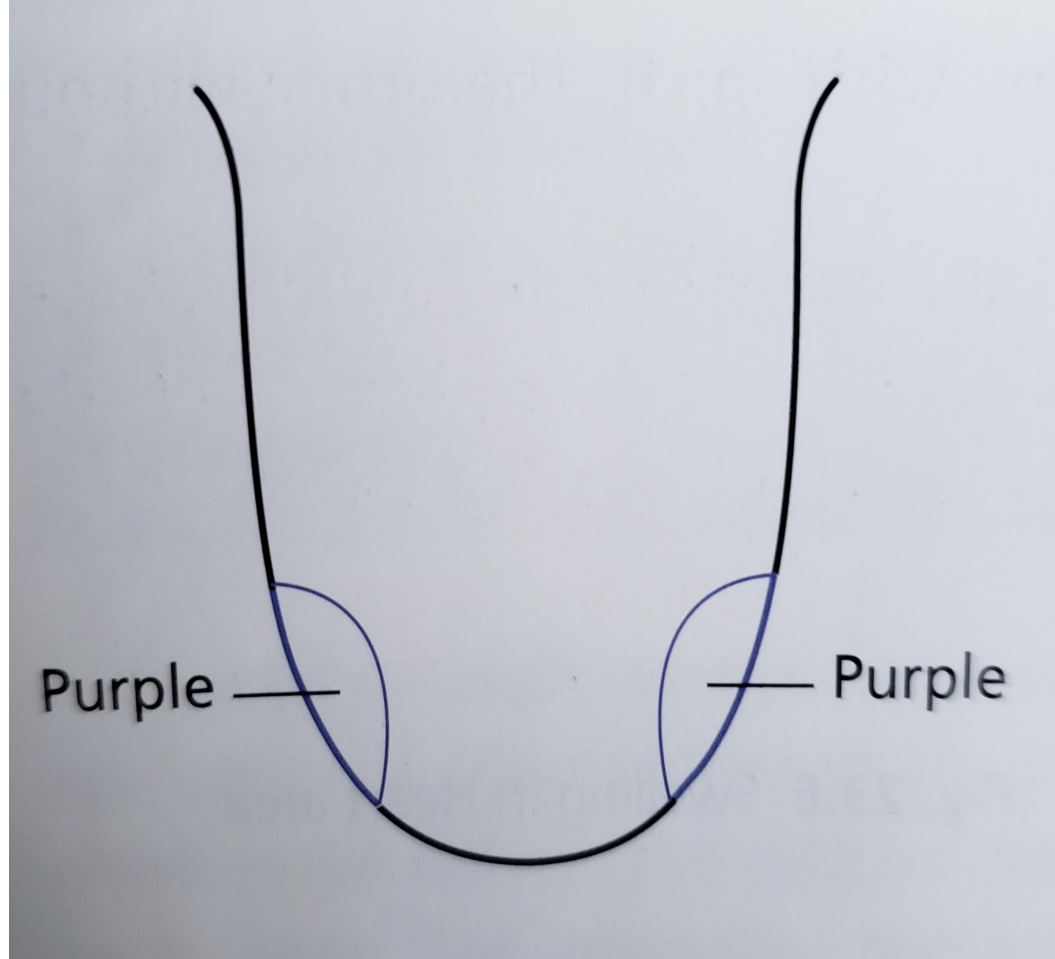
# AREAS OF THE TONGUE

4. **Purple Color:** Purple color on the sides of the tongue between the tip and the center may be related to Lung and Heart. It indicates **Blood Stasis**.

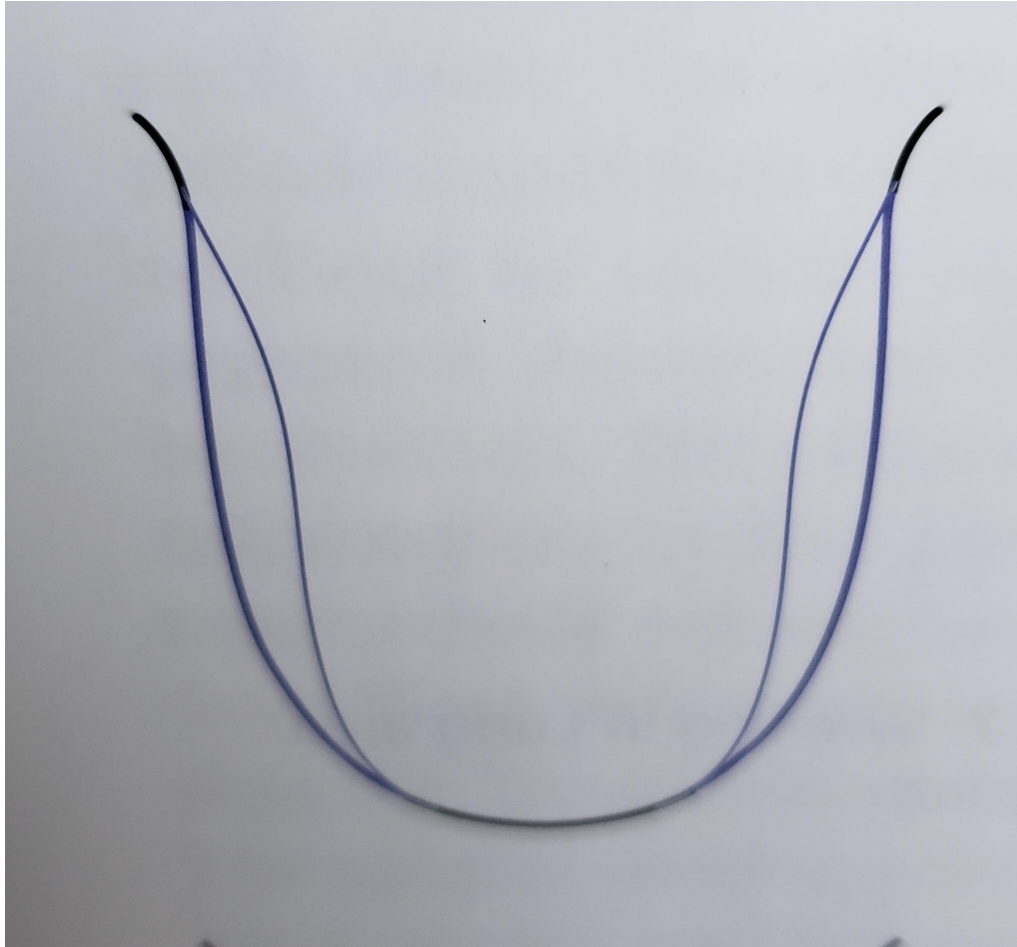
- **Lung disease:** Chronic asthma, emphysema
- **Heart disease:** Coronary heart disease, angina

The purple patch may be unilateral or bilateral

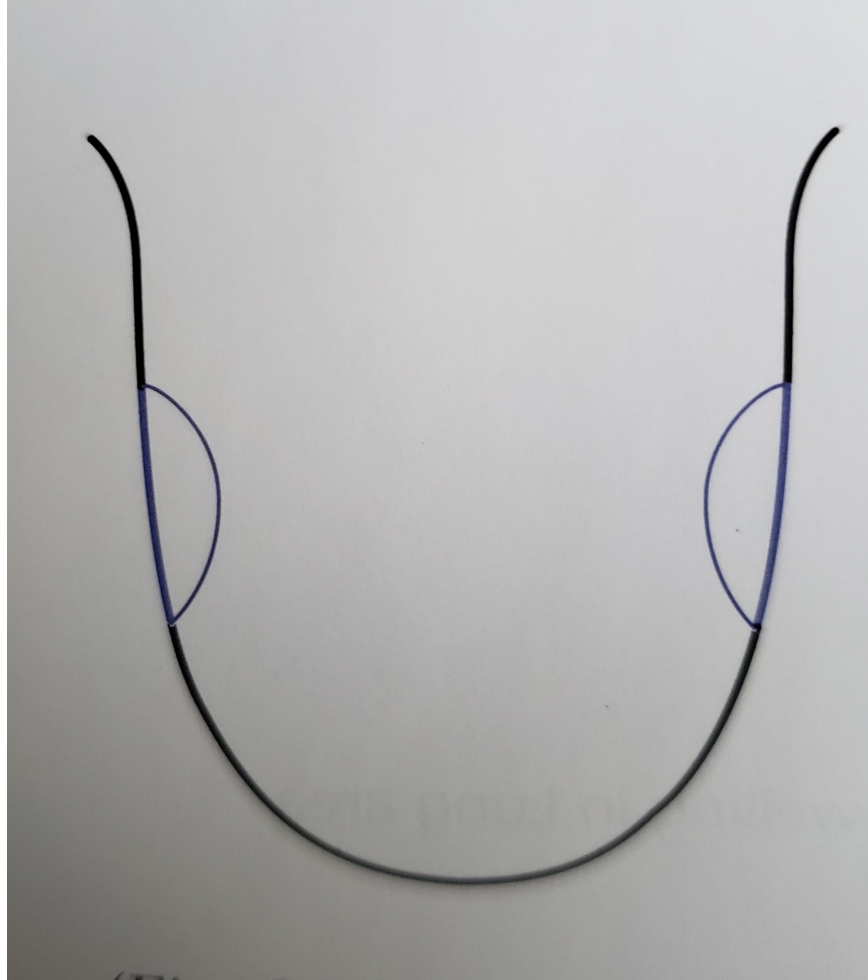
- **In women:** In addition, a purple color in that area may also indicate breast pathology



Purple color in chest area (Lungs or Heart, in women also the breast)



The sides in Liver pathology



The sides in Spleen pathology

# 1. TONGUE-BODY COLOR

The tongue-body color reflects the state of the **Yin organs, Blood and Nutritive Qi**. It shows conditions of :

- **Heat and Cold**
- **Yin or Yang deficiency**
- **Normal tongue color:** Light red or pinkish body with a thin white coating
- **Pathological colors:** Pale, Red, Deep Red, Purple, and Blue

# PALE COLOR

The Pale tongue is paler than normal. It ranges from a very slight paleness to a almost white tongue color.

Pale tongue indicates:

- **Pale and slightly wet:** Yang deficiency
- **Pale and slightly dry:** Blood deficiency (more common in women)
- **Slightly Pale:** Qi deficiency
- **Pale on the sides all along edges:** Liver-Blood deficiency
- **Pale on the sides (central area):** Spleen-Blood deficiency
- **Pale orangey or Pale without coating:** Severe Liver-Blood deficiency





# RED COLOR

Redder than normal ( Red or Dark-Red)

- **Red tongue with coating:** Full-Heat
- **Red tongue without coating:** Empty-Heat
- **Normal tongue without coating:** Yin deficiency
- **Red tip:** Heart-Heat (Full or Empty)
- **Red tongue with redder tip:** Generalized Heat and severe Heart-Heat.
- **Red sides along the edge:** Liver Heat
- **Redness on the sides (central):** Stomach or Spleen Heat
- **Red in the center:** Stomach-Heat
- **Red in the front third:** Lung-Heat







Red Tip



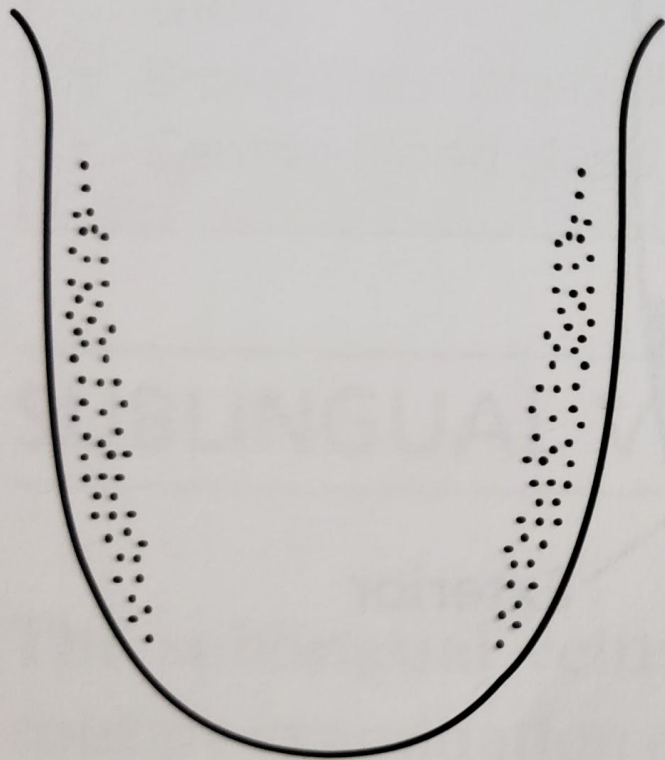
Red sides



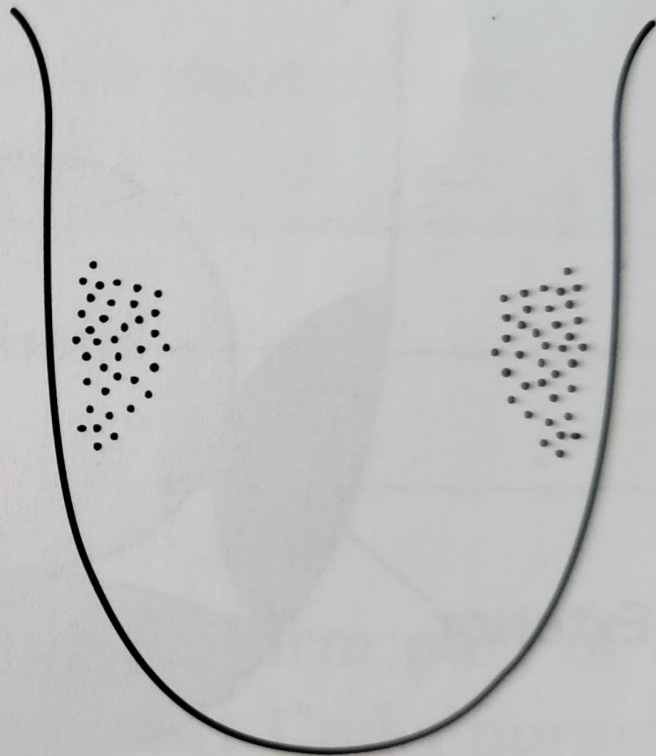
# RED POINTS

- Red points: Heat
- Red spots: Heat with some Blood Stasis
- Red points on the tip: Heart-Fire
- Red points on the sides: Liver-Heat
- Red point in the center: Stomach-Heat
- Red points on the sides in the central area: Stomach-Heat
- Red points on the sides in chest area: Lung-Heat
- Red spots on the Root: Damp-Heat in the Lower Burner
- Red points in external diseases: Wind-heat



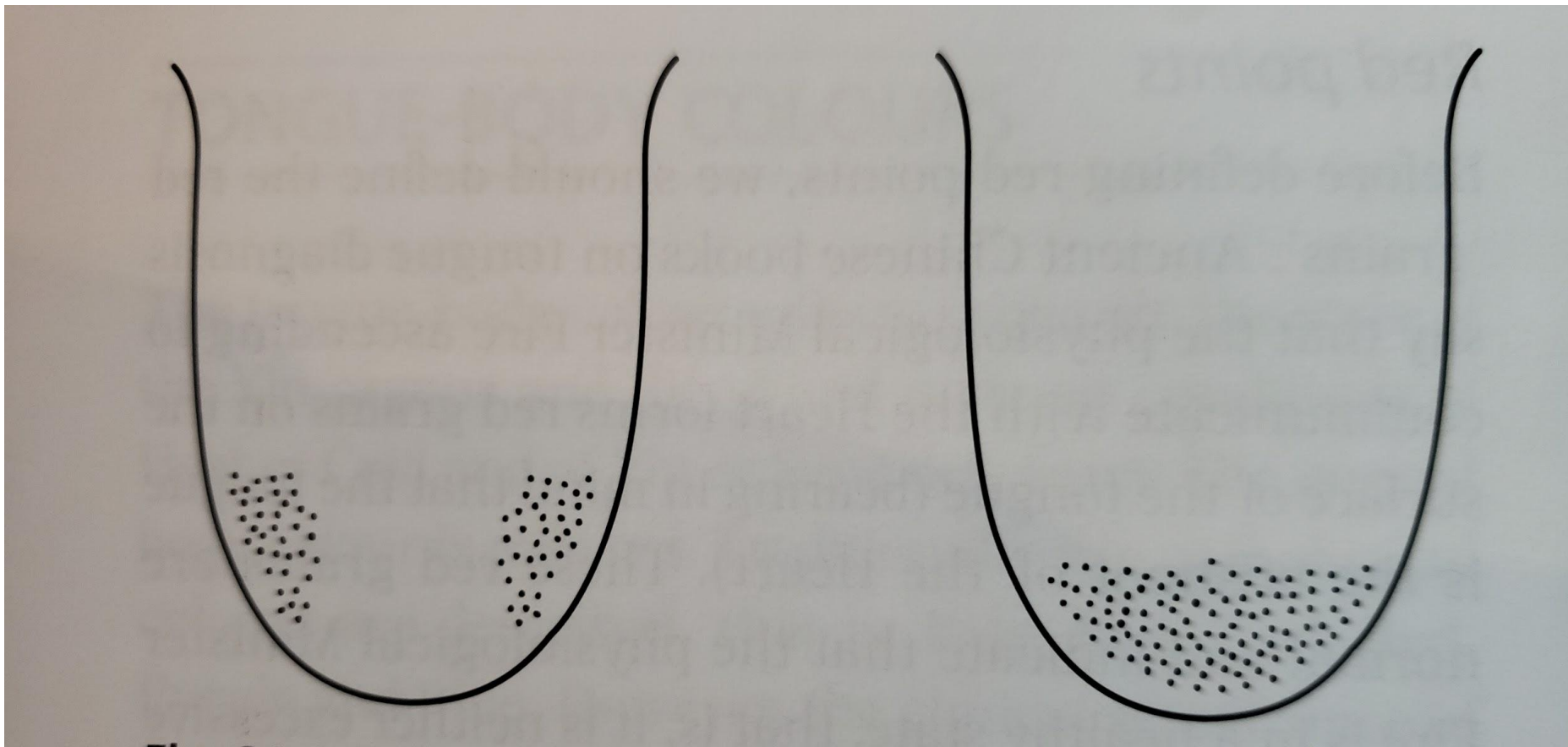


Liver-Heat



Stomach-Heat





Red points indicating Lung-Heat

# PURPLE

A purple tongue always indicates Blood Stasis, which may derive from Cold or from Heat.

- **Internal Cold:** Contracts and obstructs the circulation of Blood leading to Blood Stasis (Bluish-Purple)
- **Heat:** Condenses the body fluids and Blood leading to Blood Stasis (Reddish-Purple)
- A tongue becomes Purple only after a prolonged time, usually years. (chronic Conditions). More common in the elderly.
- Serious conditions relating to Blood Stasis: Cancer, coronary heart disease, stroke, hypertension.





## PURPLE (Cont.)

- Purple in the Liver areas: Liver-Blood Stasis or Blood Stasis in the Uterus
- Purple in the Breast/chest areas: Blood stasis in the Heart or breast
- Purple in the center: Blood stasis in the Stomach

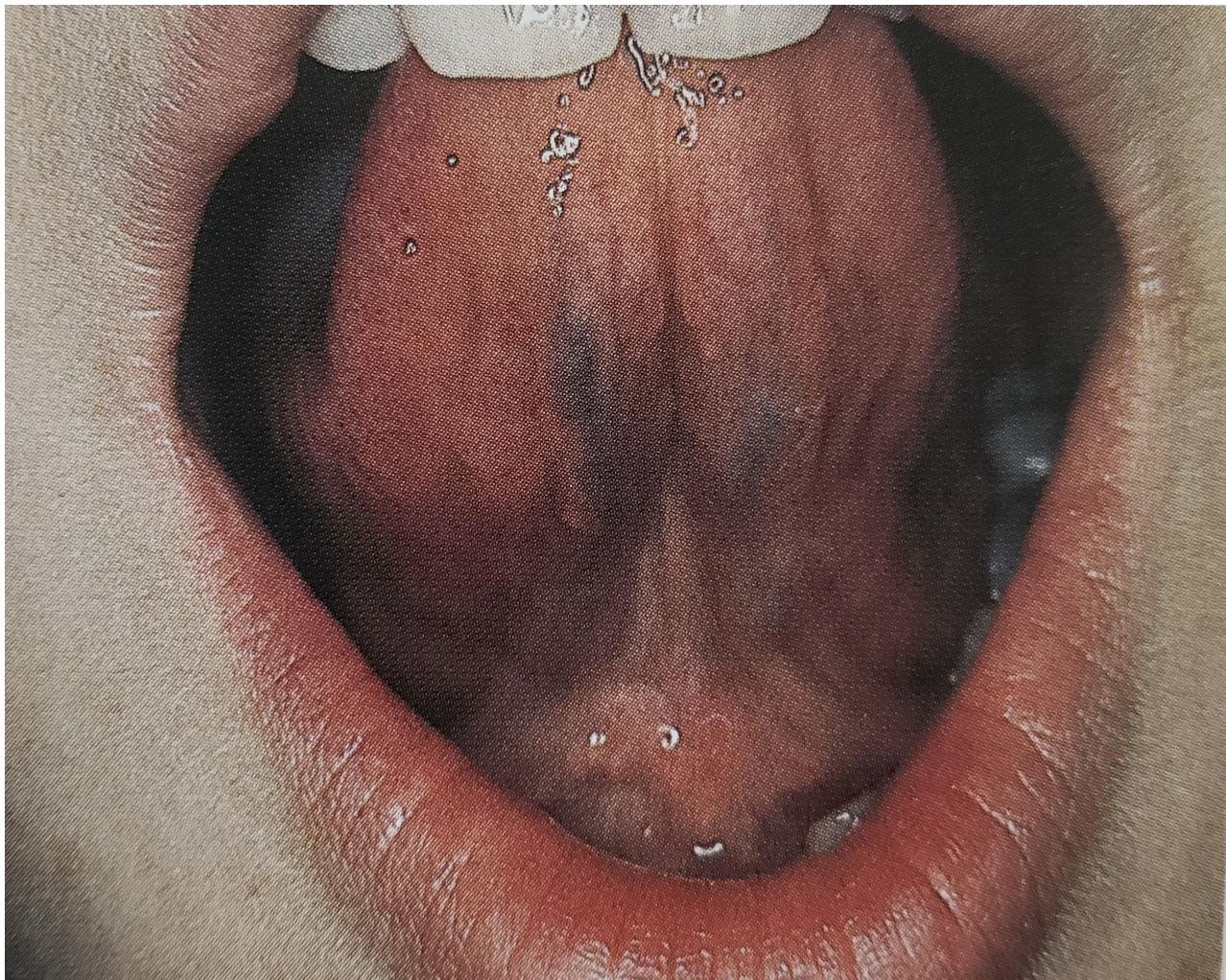


# SUBLINGUAL VEINS

- The sublingual veins should always form part of a routine examination of the tongue body.
- **Normal:** Barely visible, pale-red color
- **Abnormal:** Clearly visible
- Observe: size and color

## SUBLINGUAL VEINS (Cont.)

- Distended (not dark): Qi deficiency
- Thin: Yin deficiency
- Distended and Dark: Blood stasis
- Dark and dry: Severe yin deficiency with Empty-Heat
- Dark, swollen and wet: Lung, Spleen and Kidney deficiency with accumulation of fluids
- Reddish and shiny: Damp-Heat
- Yellowish: Dampness
- White and slippery: Cold-Dampness
- Swollen, white and sticky: Dampness and Blood stasis





## 2. TONGUE-BODY SHAPE

- Observation of the tongue-body shape reveals conditions of: **Blood & Nutritive Qi, Deficiency or Excess (Full or Empty).**
- It adds more information to the tongue-body color:
- Example: A Pale tongue may indicate Yang deficiency, but if, in addition the tongue is also very Swollen this indicates that the Yang deficiency is severe and that it has led to the accumulation on Dampness or Phlegm.

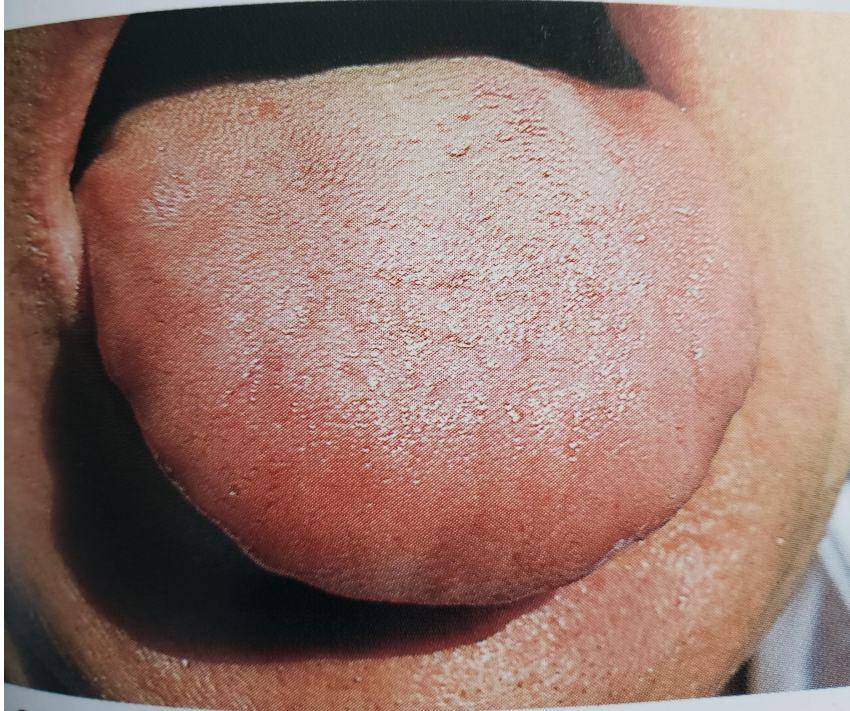
# THIN

- The body of the tongue is formed by fluids and Blood.
- A thin body always indicates a deficiency either of Blood or of Yin fluids.
- **Blood Deficiency:** It will also be **Pale**
- **Yin deficiency:** It could be **Red**
- A thin tongue is not common

# SWOLLEN

- The size of the tongue body has to be related to the size of the head of the person.
- A swollen tongue-body indicates an accumulation of fluids, which may be **Dampness**, **Phlegm** or **edema**
- Swelling of the tongue always indicates a **Full** condition

24.9 Purple colour in breast chest area



25.1 Swollen tongue body

# PARTIALLY SWOLLEN

- Partial swelling may indicate Qi deficiency, Qi stagnation or Heat.
- Common areas: **Liver** or **Chest** area, **the tip** and **the front third**.
- **Swelling on the sides:** Liver-heat
- **Swelling on the chest/breast area:** Phlegm in the chest or breast or Lung-Qi deficiency
- **Swelling of the tip:** Heart-Heat or Heart-Fire
- **Swelling of the front third:** Phlegm in the Lungs

# FLACCID

- A flaccid tongue is flabby and in severe cases it has a crumpled look.
- It always indicates **Lack of Body Fluids** or **Blood**.

# LONG

- A long tongue is usually narrow and when extended, protrudes further than normal
- Not commonly seen
- It indicates **Heat**

# SHORT

- A short tongue appears to be contracted
- The patient is unable to extend it out of the mouth cavity
- If **Pale: severe Internal Cold** and **Yang deficiency** (Internal Cold contracts the muscles)
- If **Red** and **without coating: Yin deficiency** (not enough fluids in the tongue)

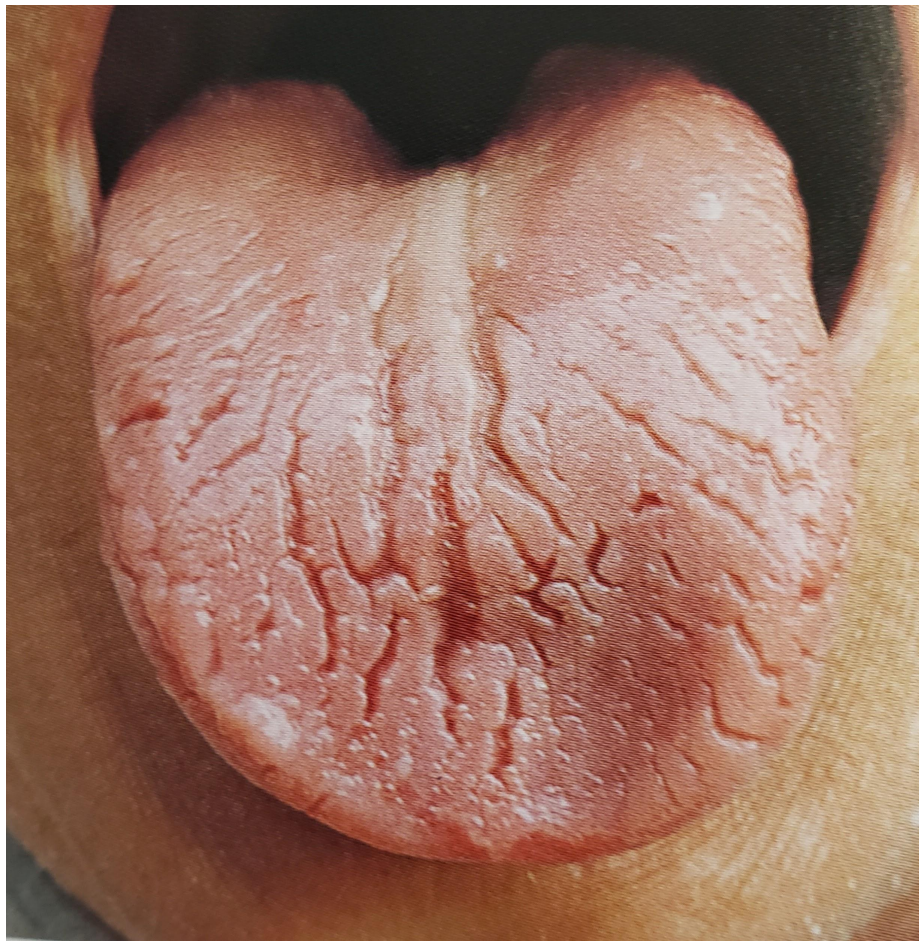


# CRACKED

- **Yin deficiency:** the most common cause.
- It could also indicate **Dampness** or **Qi deficiency**
- **Horizontal Cracks:** Stomach or Kidney Yin deficiency, or both (they are more commonly seen in elderly)
- **Irregular Cracks:** Stomach-Yin deficiency
- **Central short crack in the midline:** Stomach-Yin deficiency
- **Central long crack in the midline:** Heart patterns. If the heart crack is shallow and the body color is normal indicates constitutional tendency to heart patterns.
- **An extremely deep midline crack with other small cracks:** severe Kidney Yin deficiency with Empty-Heat in KD/HT



Horizontal cracks



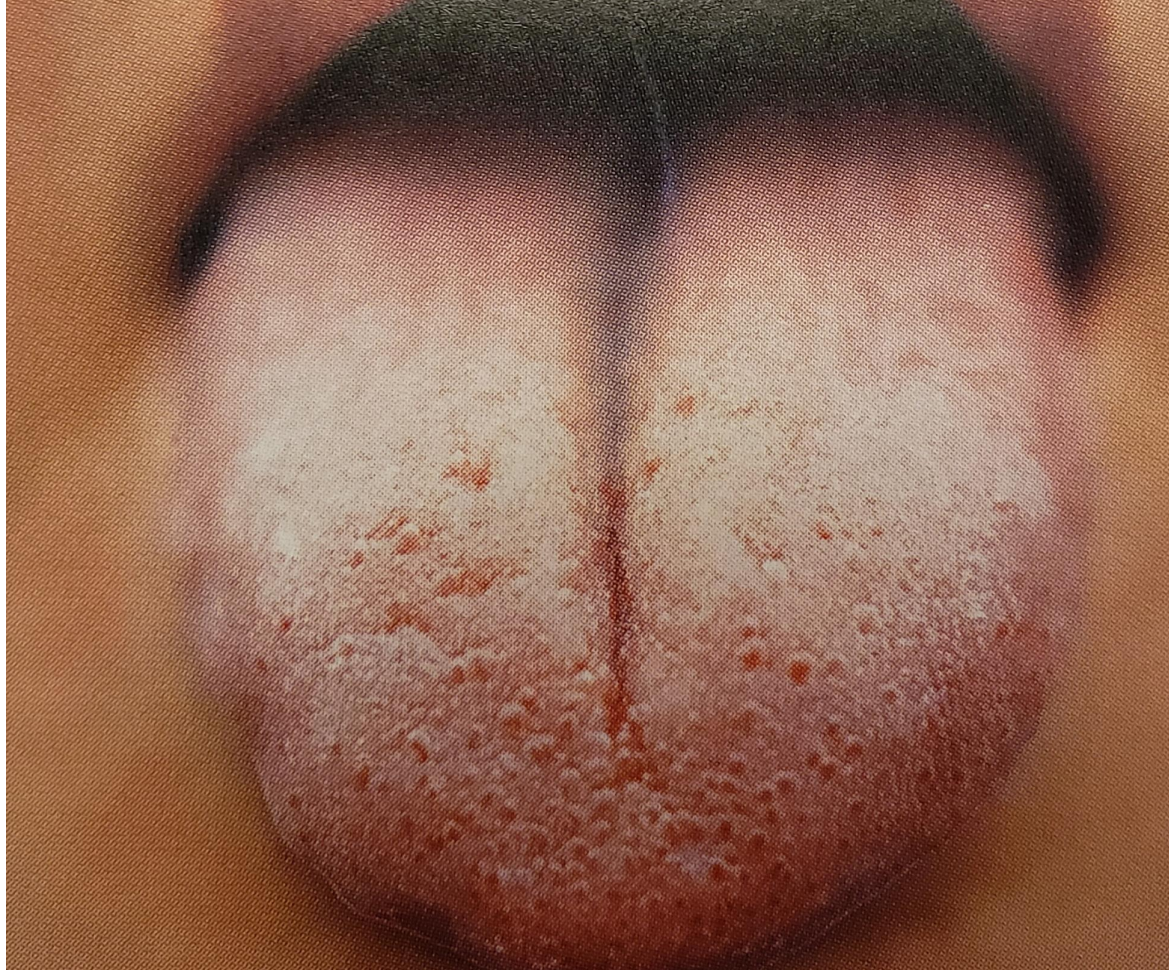
Irregular cracks





Stomach crack





Heart crack



Deep midline crack with small cracks

# DEVIATED

- The deviated tongue deviates to one side when extended.
- The most common cause is **Internal-Wind**
- Most commonly seen in elderly
- In young person it may be related to Heart deficiency

# MOVING

- The moving tongue moves slowly from side to side with large amplitude
- The patient cannot control the movement
- It always indicates **Internal-Wind**
- Usually seen in the elderly



# QUIVERING

- Trembles rapidly and with small amplitude movements
- Most commonly seen in chronic conditions like **Spleen-Qi deficiency** or **Spleen-Yang deficiency**.

# TOOTHMARKED

- Indicates **Chronic Spleen-Qi deficiency**, but since a tongue with a normal body shape can have teethmarks, do not assume that the presence of teethmarks necessarily means it is swollen.



### 3. TONGUE COATING

- The Stomach rots and ripens food, and during the process of digestion a small amount of “turbidity” scapes upwards to reach the tongue: This forms the coating.
- The presence of a coating indicates the normal functioning of the **Stomach-Qi**.
- **A normal coating** should be **white** and **thin** enough to see the body color through it.
- The Stomach, Spleen and Kidneys play a role in the coating formation. Lack of coating may indicate Stomach-Yin or Kidney-Yin deficiency or both

## TONGUE COATING (Cont.)

- The tongue coating is naturally thicker at the root of the tongue and thinner towards the tip.
- The coating does not extend to the very edges of the tongue.
- Tongue coating reflects the state of the **Yang organs**, especially the **Stomach**.
- Tongue coating reflects **Deficiency** or **Excess**, **Heat** or **Cold**

# PRESENCE OR ABSENCE OF COATING

- If the tongue has a coating with root, it indicates that the **stomach-Qi** is still intact even if the excessive thickness or color of the coating is pathological.
- The tongue without coating indicates that the stomach-Qi is severely weakened and therefore a deficiency condition.
- It is better to have a thick, pathological coating with root than not to have a coating.
- The tongue coating disappears gradually over a long time (usually years). In acute conditions and especially acute, febrile diseases in children, the coating may disappear very quickly in a matter of days.

# PRESENCE OR ABSENCE OF COATING

- In chronic conditions characterized by the absence of coating, with treatment the coating should return gradually and quite slowly; this is a positive sign. If the coating appears suddenly on a tongue that previously lacked it , this is a bad sign.
- If a tongue has a very thick, pathological coating, its sudden total or partial disappearance in the course of the disease is a poor prognosis sign because it indicates the sudden depletion of Stomach-Qi.
- The tongue coating can change much more quickly than the tongue-body color.

# COATING WITH OR WITHOUT ROOT

- A coating with root reflects the normal functioning of the Stomach-Qi even if the coating may be pathological.
- A coating without root resembles mown grass “added” on top of the tongue rather than growing out of it.
- In severe conditions, the rootless coating may look like salt or snow sprinkled on top of the tongue.
- A rootless coating indicates the beginning of the weakening of the Stomach-Qi in the course of a chronic disease.
- It is better to have a thick, pathological coating with root than to have a thin coating without coating



# COATING WITH OR WITHOUT ROOT

- The coating with root is not necessarily thin, although that is the most common situation.
- The coating without root can also be thick and often sticky: this represent the worst scenario because it indicates that on one hand, Stomach-Qi is weakened and on the other hand, there is a significant pathogenic factor (against which the body is unable to fight due to the Stomach-Qi deficiency).

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graph LR; A[Coating with root] --> B[Thin = Stomach-Qi deficiency]; A --> C[Thick = Pathogenic factors]; D[Coating without root] --> E[Thin = Stomach-Qi weakened]; D --> F[Thick = Strong pathogenic factor, Stomach-Qi weakened];
```

Coating with root

Thin = Stomach-Qi deficiency

Thick = Pathogenic factors

Coating without root

Thin = Stomach-Qi weakened

Thick = Strong pathogenic factor,  
Stomach-Qi weakened

# TONGUE COATING WITH OR WITHOUT ROOT

- **Thin coating with root:** Healthy Stomach-Qi
- **Thick coating with root:** Strong pathogenic factor, Stomach-Qi still intact.
- **Thin coating without root:** Beginning of weakening of Stomach-Qi
- **Thick coating without root:** Strong pathogenic factor, Stomach-Qi weakened

# COATING THICKNESS

- The normal coating is thin and it should be possible to see the tongue body through it. If the tongue body cannot be seen, the tongue coating is too thick.
- The thickness of the tongue coating reflects the strength of the pathogenic factor: The thicker the coating the stronger the pathogenic factor. If a thin coating becomes thick this indicates, this indicates that the pathogenic factors are getting stronger or that they are penetrating deeper into the interior.
- If we are treating a patient with a thick tongue coating, we should expect it to become gradually thinner.

# COATING DISTRIBUTION

- The tongue coating never extends to the very tip or the very edges of the tongue.
- The most common locations where a thick coating is observed are in the center and on the root of the tongue.
- **In the center:** Reflects the presence of a pathogenic factor in the Stomach (Heat, Cold, Dampness or Phlegm).
- **On the root:** Reflects the presence of a pathogenic factor in the Bladder or Intestines.
- A pathogenic factor in the Gall-Bladder is manifested by unilateral or bilateral coating on the edges of the tongue.

# PATHOLOGICAL COATING COLORS

1. **White:** Cold pattern
2. **Yellow:** Full Heat pattern
3. **Grey or Black:** Extreme Cold or Extreme Heat (Tongue Wet or Dry respectively)
4. **Absence of coating:** Stomach-Yin Deficiency
5. **Total absence** of coating, **red tongue body:** Stomach and Kidney-Yin Deficiency with Empty Heat
6. **Thick coating:** Pathogenic factor

# COATING MOISTURE

- The normal coating should be relatively moist, indicating a good supply and movement of body fluids.
- **Too Dry coating:** Indicates either Heat or Yin deficiency
- **Too Wet coating:** Severe Yang deficiency



## TONGUE COATING (Cont.)

- **Sticky Coating:** Also called **Greasy**. Has an oily but coarse appearance and individual papillae can be seen. Dampness or Phlegm (especially latter)
- **Slippery Coating:** Also greasy or oilier than the sticky coating . Individual papillae cannot be seen. Dampness or Phlegm ( especially the former)
- **Mouldy Coating:** Thick, patchy and crumbly (like cottage cheese). It looks greasy without root. Dampness or Phlegm with Stomach-Yin deficiency.

## 4. TONGUE SPIRIT

- The tongue spirit refers to the general appearance of the tongue; this is called “Shen” in chinese.
- It refers to the qualities of brightness, sheen and vitality
- We can distinguish 2 types of tongue: One with spirit, the other without spirit.
- A tongue with spirit denotes certain qualities of liveliness, vitality and brightness of the tongue body.
- A tongue without spirit looks lifeless, rather stiff, dark and dull

## TONGUE SPIRIT (Cont.)

- The spirit should be observed in particular on the root of the tongue, because the root reflects the the state of the Kidneys, and the spirit of this area reflects the condition of the Kidney essence.
- The Kidney essence is the foundation of life and the absence of spirit on the root of the tongue indicates a severe deficiency of the Kidneys and therefore the tendency to illness.
- The tongue spirit is a prognosis sign as a tongue with spirit indicates that the patient may recover

# TONGUE SPIRIT

- A tongue without spirit indicates that, whatever the patient may suffer from, the treatment may be prolonged.
- It is important to remember that the tongue spirit has nothing to do with other pathological signs on the tongue; in other words, the patient may have a tongue that is pathological in many aspects, but if it has spirit this indicates that the Kidney essence is still strong and that the body can fight off pathogenic factors.