Tongue and Pulse Diagnosis

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Contents of Tongue Diagnosis

Chapter 1 Tongue Introduction

What is Tongue Diagnosis?

- Inspection of Tongue
  - An important part of inspection diagnosis in TCM.
  - A diagnostic method by means of observing the changes of the body and fur (coat) of the tongue.

http://www.youtube.com/watch?v=aIxFaoqAwPU&NR=1
Why Introduce Tongue Diagnosis?

- The tongue has many relationships and connections in the body, both to the meridians and the internal organs.

- It is therefore very useful and important during inspection for confirming TCM diagnosis.

- It can present strong visual indicators of a person's overall balance or unbalance.

Internal organs Related with Tongue
- Tongue is the sprout (mirror) of Heart
- Tongue is called the out-show of the spleen

Channels/Meridians Reaching the Tongue
- By Luo connecting channel: Heart channel
- By divergent or branch of meridian: Liver, Spleen, Kidney, Urinary Bladder, Triple Energizer;
- By external-internal relationship: Lung, Large Intestine, Small Intestine, Gallbladder;
Why Introduce Tongue Diagnosis?

- **Qi and Blood with Tongue**
  - The tongue depends on qi and blood to nourish and body fluid to moisten.
  - The color and texture of the tongue are related to the state of qi and blood.
  - The moisture and dryness of the tongue coating and body are related to the quantity and distribution of body fluid.
  - So, the tongue can reveal the states of the viscera, qi, blood, yin, yang, pathogenic factors and healthy qi as well as the progress of diseases.

The Significance of Tongue Diagnosis

- **1. To judge the excess or decline of the vital qi:**
  - The exuberance or decline of visceral qi and blood can be shown in tongue. For example:
  - The red and moist tongue means the exuberance of qi and blood; while the pale tongue is a sign of deficiency of both qi and blood.
  - The white, thin and moist coating indicates a exuberant stomach qi; while no coating is due to the decline of stomach qi or impairment of stomach yin.
The Significance of Tongue Diagnosis

2. To distinguish the nature of disease:
   - Evils of different natures will make different tongue. For example,
     - If there is no prickle on tongue surface and the coating is white and moist, or the tongue is bluish black without prickle. It is due to cold evil.
     - If there is a red and dry tongue with yellow coating or red prickle tongue with yellow, thick and greasy coating, it is due to warm or heat evil.
     - The greasy or putrid coating indicates the food-retention.
     - The blue macule or spot on tongue suggests blood stasis.

How to inspect Tongue?

In order to avoid mistake when observing tongue, special attention should be paid to some points which can make changes in tongue picture.
   - The Posture of Patient
   - The light of Inspection
   - Diet
How to inspect Tongue?

1. The Posture of Patient
   - There is no limitation of the body posture. The patient should stretch out the tongue in a natural way to expose tongue thoroughly.
   - The muscles of tongue should be relaxed. The tongue tip droops slightly.
   - The upper surface of tongue should be expanded to two sides without curve.
   - The over extension of tongue with too much strength should be avoided, so as not to make effect on blood circulation of tongue which will change the tongue color.
How to inspect Tongue?

2. The light of Inspection
- It is best to observe tongue in daytime under the natural light. For example, in lamp light. The yellow coating can be seen as a white coating. The pale tongue is seen as dark purple tongue. etc. When observing tongue at night, the fluorescent lamp can be chosen because it is similar to nature light.

How to inspect Tongue?

3. The Effect of Diet on Tongue
- The patient had better to avoid taking food before seeing a doctor. The tongue keeps its true state before food intake. After meal, the moist or dry of coating is difficult to be distinguished. If patient has taken food or drugs, the doctor should pay attention on dyed coating.
- Some food or drugs can make the color of tongue coating changed. For example, smoked plum and Chinese olive can change coating color into black; milk can change coating into greasy; loquat and gold-thread root can dye coating in yellow; heavy smoking can turn coating color into black. If tongue condition is not corresponding to the whole symptoms, one should ask the patient about the food and drugs to prevent from being confused by the false tongue conditions.
How to inspect Tongue?

- Additional special attention:
  - Brushed tongue
  - Season of the year
  - Time of Day
  - Patient’s age

How to inspect Tongue?

- The order of inspect tongue
  - General speaking, first inspect tip of tongue, then middle of tongue, finally inspect root of tongue.
  - General speaking, first inspect body of tongue, and then coating of tongue
  - Throughly and quickly
How to inspect Tongue?

- To detect the location of disease

- To infer the tendency of disease
- The changes of tongue usually follow the changes of vital qi and evils, and disease location.
- We can infer the tendency of disease by observing tongue, especially in exogenous febrile diseases. For example,
  - The turning of coating from white to yellow, and from yellow to black, is usually due to the transferring of evils from exterior to interior or from cold to heat. It shows the deterioration of disease.
  - If a moist coating turns into dry, it is usually due to loss of body-fluid resulting from heat.
  - The change from dry to moister implies the recover of body-fluid.
  - The change of coating from thick to thin is a sign of improvement.
What includes in Tongue Diagnosis

- Tongue diagnosis includes observing tongue body (texture) and observing tongue coating.
  - Inspection of the body of the tongue includes the color, shape, texture and movement of the tongue, which reflect the conditions of the viscera, qi and blood.
  - The tongue fur or coating refers to the lichen-like materials formed on the surface of the tongue. Inspection of the color of the tongue and fur can reveal the conditions and nature of pathogenic factors as well as the interaction between healthy qi and pathogenic factors.

What is Normal Tongue?

- Dark red tongue
- Pale tongue
- ?
What is Normal Tongue?

- The normal tongue is characterized by a middle size, soft, neither tough nor tender, free movement, light red (Zheng Hong) color, covered by thin and even white coating with moderate moist, which could not be scraped away and has its root in tongue.

- In a word, pink tongue with white and thin coating.
Several Concepts

Tongue Vitality

- Observing tongue vitality is to observe the abnormal changes of the body, color, shape and movement of the tongue.
- The tongue vitality is shown in the flourishing or withering of tongue body.

1) Flourishing means to be full of vitality. The flourishing of the tongue refers to a light red tongue body with energetic movement and enough fluid in it. It suggests:
   - The normal stomach qi.
   - If the condition is red, moist and vigorous, no matter whether the color of tongue coating is yellow, white or black, the prognosis is good.
Several Concepts

2) Withering means to lack vitality. The withering of tongue refers to a dark and dry tongue body with sluggish movement. No matter whether there is a coating or not, the prognosis is bad.

Several Concepts

In tongue observation, tongue coating and tongue texture have their own applying field respectively. The observation of tongue texture is more important.

Generally speaking, observation of tongue texture mainly probes the visceral conditions; while observation of tongue coating inspects the nature and location of disease and the clear or turbid of stomach qi.
Several Concepts

- If changes are only in tongue coating, the illness is mild. When changes develop from tongue coating to tongue texture, it indicates the disease developed. If tongue texture is no vitality, it is a critical condition.
What is Normal Tongue Color?

Normal tongue color:

Light red (pink color) is the normal color of the tongue body. The normal condition is neither too light nor too deep pink color for the whole of the tongue body. If the color change is out of this range, it is abnormal.

Such a condition of the tongue is usually suggesting sufficiency of qi and blood.

Sometime it is also seen in mild cases, such as primary stage of exogenous disease or mild internal impairment, indicating that qi, blood, yin, yang and viscera are not involved.

Several Abnormal Tongue Colors

- Pale Tongue
  - Manifestation:
    - The color of the tongue is lighter than that in normal condition, more white and less red, or even showing no signs of blood (severe case) at all
  - Mechanism
    - Deficiency of qi and blood fail to nourish the vessels of the tongue. So the tongue shows pale.
  - Indications:
    - Yang qi deficiency
    - Qi and blood deficiency
Several Abnormal Tongue Colors
-----Pale Tongue

- Differentiation between Yang qi deficiency and qi, blood deficiency
  - Yang qi deficiency
    - Pale tongue body, swollen with surplus fluid on it.
    - The decline of yang will lead to inner deficient cold. The dysfunction of spleen yang leads to water-dampness retained inside, so the color of the tongue is pale and the tongue body is swollen with surplus fluid on it.
    - It is accompanied by intolerance to cold, cold limbs, listlessness, poor appetite, loose stools, a deep and slow pulse or a deep and weak pulse.

- Qi and blood deficiency
  - Pale and the tongue body is small and thin with little fluid on it.
  - The blood deficiency is often due to qi (heart, spleen) deficiency, which is not strong enough to generate blood, and acute or chronic bleeding. In this condition, the color is pale and the tongue body is small and thin with little fluid on it. Usually there is no coating.
  - It is accompanied by sallow complexion, pale lips, palpitations, lusterless nails and thready pulse.
Several Abnormal Tongue Colors

-----Pale Tongue

 Pale tongue
Due to yang qi deficiency

 Pale tongue
Due to qi and blood deficiency

Several Abnormal Tongue Colors

- Red Tongue
  - Manifestation
    - The tongue is redder than that in the normal tongue.
  - Mechanism
    - Heat in the body makes qi and blood boiling. Then the vessels of the tongue are filled up. So the tongue shows red.
  - Indications
    - Heat syndrome
      - Excessive heat
      - Deficient heat
Several Abnormal Tongue Colors
-----Red Tongue

- Differentiation between excessive heat and deficient heat
  - Excessive heat
    - Marked by redness and dryness, and there are prickles or cracks on the tongue upper surface.
    - It is often accompanied by fever, extreme thirst and profuse sweating & drinking, a yellow coating, surging pulse, etc.
      - Red tip of the tongue is due to heart fire flaming up with dry throat.
      - Tongue with redness in the bilateral margins is due to liver and gallbladder fire.
      - Red small points on the tongue is due to heat-toxin.
      - Heavy red small points over all the tongue surface is called "red star tongue". It is due to damp-heat which attacks the heart and spleen and leads to heat in both zang-viscera and fu-viscera.
  - Deficient heat
    - The tongue is bright red without a coating or with little coating, or a dry tongue with red in the middle.
    - It is often accompanied by tidal fever, malar flush, irritability, hot sensations in "five centers", night sweating, with a thready and rapid pulse.
Several Abnormal Tongue Colors

-----Red Tongue

Red tongue
Due to excessive heat

Red tongue
Due to deficient heat

Several Abnormal Tongue Colors

- Crimson (deep-red) tongue
  - Manifestation
    - Crimson tongue develops from a red tongue. The color is deeper and darker than red tongue.
  - Mechanism
    - Heat in the body makes qi and blood boiling. Then the vessels of the tongue are filled up. So the tongue shows red.
    - The redder the tongue, the severer the heat.
  - Indications
    - Heat syndrome
      - Excessive heat
      - Deficient heat
Several Abnormal Tongue Colors
-----Crimson Tongue

- Differentiation between excessive heat and deficient heat
  - Excessive heat
    - Extreme stage of febrile disease—excess heat
      - Warm-heat evils entered nutrient and blood phase.
      - Evils in pericardium.
      - Accumulation of latent heat in heart and stomach

- In internal injury diseases
  - Hyperactivity of fire due to yin deficiency--
    Crimson and dry tongue with little coating or without coating, and thin tongue body with cracks.
  - Crimson and moist tongue with little coating is due to blood stasis.
  - If the tongue is crimson and withered without coating, and the tongue surface is mirror-like, it is called "mirror-tongue" and belongs to the critical condition of stomach and kidney yin exhaustion.
Several Abnormal Tongue Colors

-----Crimson Tongue

Crimson tongue
Due to excessive heat

Mirror tongue
Due to stomach and kidney yin exhaustion

Several Abnormal Tongue Colors

- Purple (cyanotic) tongue
  - Manifestation
    - When tongue body is purple, it is called a purple tongue.
  - Mechanism
    - Excessive yin cold, excessive heat or deficient yang obstruct the vessels of tongue. So the blood stasis and tongue shows purple, even spots on the surface of the tongue.
  - Indications
    - Excess syndrome
      - Excessive heat
      - Excessive yin cold
      - Blood stasis (due to Qi stagnation)
      - Phlegm and dampness
      - Injury by alcohol toxicity
    - Deficient syndrome
      - Yang qi deficiency
      - Kidney and stomach yin exhaustion
Several Abnormal Tongue Colors
-----Purple Tongue

- Differentiation between excess and deficiency
  - Excessive syndrome
    - Heat evil entering interior--the purple and dry tongue with cracks is seen in severe cases of yin exhaustion caused by heat.
    - Internal excess of yin cold—the purple and wet tongue accompanied by yin cold syndrome. Such as cold coagulates liver meridian.
    - Blood stasis--the tongue is dark purple and moist.
    - Phlegm-dampness--purple color and the coating is slippery and greasy.
    - Injury by alcoholic toxin--purple and swollen, dry tongue

- Deficient syndrome
  - Pale purple tongue: with white, moist coating is due to deficient cold.
  - Kidney and stomach yin exhaustion--dark purple and dry just like a pig liver.
Several Abnormal Tongue Colors

-----Purple Tongue

Purple tongue
Due to phlegm dampness

Purple tongue
Due to excess yin cold

Several Abnormal Tongue Colors

-----Purple Tongue

Purple tongue
Due to Heat evil entering interior

Pig Liver tongue
Due to Kidney and stomach yin exhaustion

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Several Abnormal Tongue Colors

Bluish tongue
- Manifestation
  - When the tongue body is light blue and purple, it is called bluish purple tongue.
- Mechanism
  - Excessive yin cold, blood stasis obstruct the vessels of tongue. So the tongue shows light blue, even spots on the surface of the tongue.
- Indications
  - Yin cold syndrome---wholly bluish tongue
  - Blood stasis---bluish side of tongue

---Bluish Tongue

Bluish Tongue
## Questions

![Tongue Images]

<table>
<thead>
<tr>
<th>Tongue Body Color</th>
<th>Indications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pink</strong></td>
<td>normal or mild disorder</td>
</tr>
</tbody>
</table>
| **Pale**          | yang, blood a/or qi def  
Deficiency Cold  
+ thin & dry = blood def  
+ wet = qi def  
+ swollen = qi def  
+ swollen & wet = yang def |
| **Red**           | Heat:  
+ no coating = yin def empty heat  
+ yellow coat = excess heat  
+ wet = damp heat  
+ dry = injured fluids  
  - Red tip of the tongue = heart fire  
  - Red side of the tongue = liver fire  
  - Red small points on the tongue = heat toxin |
| **Crimson**       | Extreme heat, more severe conditions than red |
| **Purple**        | Excess: Heat; Yin cold; Blood stasis; Phlegm damp; Alcoholic toxin  
Deficiency: Deficient cold (moist); Stomach and kidney yin exhaustion (pig liver) |
| **Blue**          | Internal Yin cold syndrome---wholly bluish tongue  
Blood stasis---bluish side of tongue |
What is Normal Tongue Texture & Shape?

- Normal Tongue Texture & Shape
  - Supple (soft), neither too flabby nor too stiff, no cracks, does not tremble, is neither swollen nor thin, has no ulcers. As a general rule, the normal tongue shape changes only when pathology persists over a long period of time.
Normal Tongue Texture & Shape

Several Abnormal Tongue Texture & Shape

- **Tender tongue** (Tenderness, Jiao Nen She)
  - **Manifestation**
    - The texture of tongue are delicate, fine and smooth, moistened and lustrous surface, light color and bulgy appearance.
  - **Mechanism**
    - Deficiency of Yang qi, or deficiency of qi and yin fail to nourish the vessels of tongue. So the tongue shows tender
  - **Indication**
    - Deficiency syndrome (yang or qi and yin)
    - Cold syndrome
Several Abnormal Tongue--- Tender tongue

- **Tough Tongue** (Rough, Cang Lao She)
  - **Manifestation**
    - The texture of tongue are rough and sturdy, dry surface and dull color.
  - **Mechanism**
    - Yang heat inside the body injury the body fluid. So the tongue shows toughness or roughness.
  - **Indication**
    - Excess syndrome
    - Heat syndrome
## Few Abnormal Tongue--- Tough tongue

![Tough Tongue Example]

### Texture | Manifestation | Indications
--- | --- | ---
Tender Tongue | Delicate, fine, smooth, moistened, lustrous surface, light color and bulgy appearance. | 1) Deficiency syndrome (yang or qi and yin)  
2) Cold syndrome
Tough Tongue | Tough and sturdy, dry surface and dull color | 1) Excess syndrome  
2) Heat syndrome
Several Abnormal Tongue Texture & Shape

Bulgy Tongue (Pang Da She)

- Manifestation
  - The tongue which is bigger than usual is called bulgy tongue.

- Mechanism
  - Retention of dampness and phlegm caused by yang deficiency or damp-heat in the spleen and stomach lead to stagnation of fluid or accumulation of damp in the tongue collaterals. The tongue shows bulgy.

- Indications
  - Deficiency syndrome (Qi deficiency or Yang qi deficiency)
  - Dampness and phlegm syndrome

Several Abnormal Tongue---Bulgy Tongue

- If tongue is light-white and bulgy with moist and slippery coating, that indicates deficiency of spleen and kidney yang which fails to transform body fluid and leads to internal retention of dampness and phlegm.

- If tongue is light-red and bulgy with yellowish greasy coating, that is usually due to damp-heat in the spleen and stomach.
Several Abnormal Tongue---Bulgy Tongue

Bulgy Tongue
Due to yang deficiency

Bulgy Tongue
Due to damp-heat

Several Abnormal Tongue Texture & Shape

Swollen Tongue *(Zhong Zhang She)*
- **Manifestation**
  - The enlarged and swollen tongue body, even full of the mouth, is called a swollen tongue.
- **Mechanism**
  - Excessive heat in the heart and spleen, or by mixture of febrile pathogenic factors with alcoholic toxin attacking on the upper, or by intoxication which leads to stagnation of qi and blood in the tongue collaterals
- **Indications**
  - Excess syndrome (heat in heart and spleen; alcoholism or intoxication), sometimes deficiency syndrome.
Several Abnormal Tongue---Swollen Tongue

(1) Red and swollen
   - usually due to excessive heat in the blood.
(2) Red, swollen with yellow greasy coating
   -- phlegm-damp heat
(3) Dark purple and swollen tongue
   - often due to alcohol poisoning or drug intoxication.
(4) Pale, tenderness and swollen
   -- accumulation of body fluid caused by Yang deficiency of spleen and kidney
## Bulgy and Swollen Tongue

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<td>Bigger than usual is called bulgy tongue.</td>
<td>1) Deficiency syndrome (qi or yang deficiency)</td>
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<td></td>
<td>sometimes deficiency syndrome (spleen and kidney yang deficiency)</td>
</tr>
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</table>

## Several Abnormal Tongue Texture & Shape

- **Thin and emaciated Tongue** *(Shou Bao She)*
  - **Manifestation**
    - The tongue which is thinner and emaciated than usual is called thin tongue.
  - **Mechanism**
    - Deficiency of qi and blood, or consumption of yin fluid and insufficient moisture and nutrition of the tongue.
  - **Indications**
    - Deficiency of qi and blood
    - Consumption of yin fluid
Several Abnormal Tongue---Thin Tongue

- **Pale thinness**
  - Due to qi and blood deficiency of heart and spleen.
- **Dry, thin, red tongue**
  - Due to yin deficiency.
- **Withered, thin, dark color**
  - Due to exhaustion of both qi and yin.

Pale Thin Tongue
Due to deficiency of qi and blood

Red Thin Tongue
Due to deficiency of yin
Several Abnormal Tongue Texture & Shape

- **Fissured Tongue** *(Lie Wen She)*
  - **Manifestation**
    - The tongue which there are various fissures on the surface is called fissured tongue.
  - **Mechanism**
    - Consumption of body fluid or deficiency of essence and blood lead to insufficient nourish of tongue. The tongue shows fissure.
  - **Indications**
    - Deficiency syndrome (Essence and blood)
    - Excessive syndrome (Excessive heat consumption fluid)
    - Sometimes in healthy people (congenital fissured tongue, 0.5%)

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**Several Abnormal Tongue---Fissured Tongue**

- Deep-red and fissured tongue
  - Due to excessive heat consuming fluid
- Light-colored and fissured tongue
  - Due to deficiency of essence and blood
- Fine fissures and covered with tongue coating
  - Congenital fissured tongue
Several Abnormal Tongue---Fissured Tongue

Fissured tongue
Due to excessive heat consuming fluid

Fissured tongue
Due to deficiency of essence and blood

Several Abnormal Tongue Texture & Shape

Prickly Tongue (Mang Ci She)

- Manifestation
  - The spots or prickles on the surface of the tongue which look like strawberry. Some of them are red, white, black.

- Mechanism
  - Superabundance of heat in the viscera, invasion of heat into blood and accumulation of heat in the tongue collaterals.

- Indications
  - Excess of evil heat, even toxic heat (Stagnated heat in the nutrient-blood level)
Several Abnormal Tongue---Prickly Tongue

- The location of prickles may indicate the location of evil heat.
  - Prickles on the tongue tip indicate hyperactivity of heart fire;
  - Prickles on the tongue center indicate excess of heat in the stomach and intestines;
  - Prickles on the margins indicate excess of liver and gallbladder fire;
- The more the prickles and the deeper the color, the more severe the evil heat.
Several Abnormal Tongue Texture & Shape

- **Tooth-marked tongue (Chi Hen She)**
  - **Manifestation**
    - The margins of the tongue are printed with tooth marks.
  - **Mechanism**
    - The decline of the spleen qi or spleen yang lead to dysfunction in transportation and transformation as well as internal retention of dampness in the tongue, result in enlarged tongue which is pressed against by teeth. So it is often seen with swollen tongues.
  - **Indications**
    - Deficiency of qi or yang qi
    - Internal retention of dampness

Several Abnormal Tongue---Tooth-marked Tongue

- Tooth-marked with pale and moist tongue
  - Due to internal retention of cold dampness
- Tooth-marked with pale tongue
  - Due to spleen and kidney yang deficiency
- Tooth-marked with reddened and swollen tongue
  - Due to accumulated phlegm caused by damp-heat.
Several Abnormal Tongue---Tooth-marked Tongue

Tooth-marked tongue
Due to yang qi deficiency

Tooth-marked tongue
Due to internal retention of cold dampness

Questions?

What kind of tongues are they and what do they usually indicate?
Questions?

Questions?
## Summarization

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| Tender Tongue| Delicate, fine, smooth, moistened, lustrous surface, light color and bulgy appearance. | 1) Deficiency syndrome (yang or qi and yin)  
2) Cold syndrome |
| Tough Tongue | Tough and sturdy, dry surface and dull color                                  | 1) Excess syndrome  
2) Heat syndrome |
| Bulgy Tongue | Bigger than usual is called bulgy tongue.                                    | 1) Deficiency syndrome (qi or yang deficiency)  
2) Dampness and phlegm syndrome |
| Swollen Tongue| Enlarged and swollen tongue body, even full of the mouth, is called a swollen tongue. | Excess syndrome (heat in heart and spleen; alcoholism Or intoxication); Sometimes deficiency syndrome (spleen and kidney yang deficiency) |
| Thin Tongue  | Thinner and emaciated than usual.                                             | 1) Deficiency of qi and blood  
2) Consumption of yin fluid |
| Fissured Tongue | Various fissures on the tongue                                                 | Deficiency of Essence and blood; Excessive Heat consumption fluid; Health people |
| Prickly Tongue| The spots or prickles on the surface of the tongue which like strawberry      | Excess of evil heat, even toxic heat (Stagnated heat in the nutrient-blood level) |
| Tooth-mark tongue | The margins of the tongue are printed with tooth marks.                      | 1) Deficiency of qi or yang qi  
2) Internal retention of dampness |
What is Normal Tongue State?

- **Normal Tongue State**
  - Normally the tongue is soft and flexible, free movement, indicating sufficiency of qi and blood, normal circulation of vessels and meridians as well as normal functions of the viscera.

- **Investigation of Tongue State**
  - This mainly includes the examination of the changes of movement of the tongue.
Several Abnormal Tongue State

- **Stiff Tongue** *(Jiang Ying She)*
  - **Manifestation**
    - The tongue is not soft; it is inflexible with difficulty in moving or inability of turning.
  - **Mechanism**
    - Either exogenous diseases or Internal impairment cause either malnutrition of the tongue or obstruction of the tongue collaterals. So the tongue shows stiff.
  - **Indications**
    - Exogenous diseases (Hyperactive of evil heat; Invasion of heat into the pericardium; Obstruction of phlegm and turbid)
    - Internal impairment (Liver wind complicated by phlegm; Excessive heat consuming body fluid or invasion of heat into the pericardium; Wind-phlegm obstructing collaterals; Wind stroke)

**Several Abnormal Tongue State—Stiff Tongue**

- In exogenous diseases:
  - Hyperactivity of pathogenic heat---consume body fluid---lead to malnutrition of the tongue and inflexibility of the tongue
  - Invasion of heat into the pericardium and disturb the spirit
  - Phlegm and turbid substance---confuse the heart and affect the tongue
Several Abnormal Tongue State—Stiff Tongue

- In miscellaneous diseases due to internal impairment
  - Liver wind complicated by phlegm—obstruct the tongue collaterals. Stiff tongue is accompanied by inability of speech, vague mind, wry mouth and eyes, hemiplegia, it is the critical condition of wind stroke of zang-viscera.
  - Excessive heat consumes body fluid or invasion of heat into the pericardium, frequently seen at the severe heat stage of exogenous diseases------ deep red stiff tongue with scanty fluid
  - Wind-phlegm obstructs collaterals---stiff tongue with greasy and thick coating seen in miscellaneous diseases

- If the tongue suddenly becomes stiff, accompanied by aphasia, numbness of the limbs and dizziness, it is the premonitory sign of wind stroke.
- All conditions of stiff tongue, no matter what disease it is and what color the tongue is, belong to critical cases.
Several Abnormal Tongue State—Stiff Tongue

Video:
http://down.toyboxes.cn/soft/jpk/Article/ShowArticle.asp?ArticleID=162

Several Abnormal Tongue State

- **Atrophy** (Flaccid tongue, Wei Ruan She)
  - Manifestation
    - The tongue is flaccid and weak, and unable to move. The tongue is too weak to protrude and withdraw.
  - Mechanism
    - Extreme consumption of fluid or decline of qi and blood cause malnutrition of musculature and vessels of the tongue.
  - Indications
    - Decline of qi and blood
    - Extreme consumption of fluid caused by advanced stage in exogenous febrile disease
Several Abnormal Tongue State—Atrophy Tongue

- **The sudden onset of tongue atrophy**
  - Usually due to heat scorching the body-fluid, the tongue is red and dry.

- **The tongue atrophy in chronic diseases usually belongs to deficiency syndrome.**
  - The atrophied tongue in pale is due to deficiency of both qi and blood.
  - The dry and atrophied tongue in crimson is due to extreme deficiency of liver and kidney yin.

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58. Enlarged flaccid light-red tongue with thin dry yellow coating

**Manifestation:**
Enlarged light-red tongue with shiny sides which is too flaccid to stretch out; a little bit dry yellow coating.

**Clinical significance:**
1) Deficiency of Qi and blood.
2) Yin impairment by phlegm-heat.
Several Abnormal Tongue State

- **Shivering Tongue** *(Tremor, Chan Dong She)*
  - **Manifestation**
    - It refers to shivering and swaying which are not controlled by the patient. It is also called a trembling tongue.
  - **Mechanism**
    - Either consumption of blood or body fluid, or extreme heat generating wind, or liver yang transforming into wind fail to nourish the tendons and vessels of tongue.
  - **Indications**
    - Endogenous liver wind

Several Abnormal Tongue State—Shivering Tongue

- Light-whitish and shivering tongue
  - Due to deficiency of qi and blood and endogenous deficient-wind, usually seen in internal impairment, chronic diseases and severe diseases;
- Reddish shivering tongue with scanty dry coating
  - Due to consumption of yin fluid, malnutrition of the tendons and vessels and endogenous wind, usually seen at the advanced stage of exogenous febrile diseases;
- Deep-red and shivering tongue
  - Due to extreme heat generating wind, frequently seen at the severe heat stage of exogenous diseases;
- Reddish and shivering tongue
  - Due to liver yang transforming into wind, often seen in miscellaneous diseases due to internal impairment accompanied by headache and dizziness.
Several Abnormal Tongue State—Shivering Tongue

Video:
http://www.56.com/u24/v_NDAxNzQ4Mjk.html

Deviated tongue (Wry, Wai Xie She)

- Manifestation
  - When tongue protruding out of mouth, it is deviated or inclined to one side.

- Mechanism
  - Wind stroke or premonitory sign of wind stroke due to liver wind complicated by phlegm or liver wind complicated by stagnation in the collaterals of the tongue.

- Indications
  - Wind stroke or premonitory sign of wind stroke
Several Abnormal Tongue State—Deviated Tongue

- It is mainly due to wind entering collateral or wind-phlegm obstructing in collateral.
- When disease is in left, the tongue wry to right, and disease is in right, the tongue wry to left.

Video:
https://www.youtube.com/watch?v=RI09XKb03Ck
Several Abnormal Tongue State

- **Short tongue** (shrunk tongue, Duan Suo She)
  - **Manifestation**
    - The tongue contracts and shortens and is unable to stretch, even can not reach teeth. It is called a shortened tongue.
  - **Mechanism**
    - Either invasion of pathogenic cold, or stagnation of endogenous cold, or extreme heat consuming fluid, or stagnation of liver wind with phlegm cause spasm of the musculature and vessels. So the tongue shows short.
  - **Indications**
    - Critical condition. Either cold or heat syndrome

Several Abnormal Tongue State—Short Tongue

- If it is inborn, it is harmless.
- If it occurs in diseases, no matter what condition it is, it is a critical case. It can be caused by heat, cold, phlegm, or deficiency, etc.
  - Shortness due to cold--with moist, pale or bluish purple tongue.
  - Shortness due to heat--with red or crimson tongue and dry (when heat damages the body-fluid, the tendons and collateral are not nourished. )
  - Shortness due to phlegm
    - If accompanied by swollen tongue with greasy coating, it is due to damp-phlegm retention.
    - If yellow coating is on the tongue root and tongue is numb, it is due to phlegm carried by liver-wind.
Several Abnormal Tongue State—Short Tongue

- Protruding and wagging tongue (Tu Nong She)
  - Manifestation
    - The tongue that stretches out but is unable to retreat is called a protruding tongue. The tongue that frequently protrudes out but immediately draws back or licks the lips or corners of the mouth is called wagging tongue (playing tongue).
  - Mechanism
    - Heat in heart and spleen and the impasse of heart qi—the protruded tongue can not retract in mouth and the patient can not speak.
    - Heat in heart and spleen—disturb tongue and tongue could not keep quiet. Then it sways left and right, up and down.
  - Indications
    - Protruding—Heat in the heart and spleen; Pestilence into the heart or health qi exhaustion, usually seen in critical condition.
    - Wagging—Heat in the heart and spleen; Premonitory sign of endogenous wind; Also seen in children dementia
Several Abnormal Tongue State—Short Tongue

Video:


Protruding tongue
### Texture

<table>
<thead>
<tr>
<th>Texture</th>
<th>Manifestation</th>
<th>Indications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stiff Tongue</td>
<td>Not soft; inflexible with difficulty in moving or inability of turning.</td>
<td>Exogenous diseases (Hyperactive of evil heat; Invasion of heat into the pericardium; Obstruction of phlegm and turbid); Internal impairment (Liver wind complicated by phlegm; Excessive heat consuming body fluid or invasion of heat into the pericardium; Wind-phlegm obstructing collaterals; Wind stroke)</td>
</tr>
<tr>
<td>Atrophy Tongue</td>
<td>Flaccid, weak, and unable to move. Too weak to protrude and withdraw.</td>
<td>Decline of qi and blood; Extreme consumption of fluid caused by advanced stage in exogenous febrile disease</td>
</tr>
<tr>
<td>Shivering Tongue</td>
<td>Shivering and swaying; Not controlled by the patient</td>
<td>1) Deficiency syndrome (qi or yang deficiency) 2) Dampness, phlegm syndrome; Endogenous liver wind</td>
</tr>
<tr>
<td>Deviated Tongue</td>
<td>When tongue protruding out of mouth, it is deviated to one side.</td>
<td>Wind stroke or premonitory sign of wind stroke.</td>
</tr>
<tr>
<td>Short Tongue</td>
<td>The tongue contracts and shortens and is unable to stretch, even can not reach teeth.</td>
<td>Critical condition. Either cold or heat syndrome, Either phlegm or deficiency syndrome</td>
</tr>
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<td>Protruding and wagging Tongue</td>
<td>The tongue that stretches out but is unable to retreat is called a protruding tongue. The tongue that frequently protrudes out but immediately draws back or licks the lips or corners of the mouth is called wagging tongue (playing tongue).</td>
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</table>
Questions?

What kind of tongues are they and what do they usually indicate?

Multiple Choice

1. If a tongue is pale, it is due to:
   - A. Excess
   - B. Deficiency of qi and blood
   - C. Heat
   - D. Blood stasis

2. If a tongue is red and dry, and there are prickles on tongue. It is accompanied by fever, extreme thirst and profuse drinking. It indicates the disease is due to:
   - A. Excessive cold
   - B. Excessive heat
   - C. Deficient heat
   - D. Deficient cold
3. The red and tender tongue is due to:
   A. Excessive heat in the kidney
   B. Excessive heat in the liver
   C. Excessive cold in the spleen
   D. Deficient heat

4. The enlarged and swollen tongue body which is pale and tender is caused by:
   A. Excessive heat
   B. Phlegm-damp heat
   C. Alcohol poisoning or drug intoxication
   D. Accumulation of body fluid caused by Yang deficiency of spleen and kidney

5. The fissure (crack) in deep red tongue is due to:
   A. Body-fluid deficiency
   B. Spleen deficiency and dampness overflow
   C. Heart fire flaring
   D. Cold

6. Short tongue can be seen in:
   A. Heat or cold syndrome
   B. Phlegm syndrome
   C. Inborn Tongue
   D. All of A, B, C
7. Which of the following description about deviated tongue is correct EXCEPT:
A. Usually indicates wind stroke or premonitory sign of wind stroke
B. When disease is in left, the tongue wry to right, and disease is in right, the tongue wry to left.
C. When disease is in left, the tongue wry to left, and disease is in right, the tongue wry to right.
D. It is due to liver wind complicated by phlegm or liver wind complicated by stagnation in the collaterals of the tongue.

8. Deep-red shivering tongue with normal coating usually indicates:
A. Deficiency of qi and blood and endogenous deficient-wind
B. Extreme heat generating wind
C. Liver yang transforming into wind
D. Severe heat stage of exogenous diseases consumption of yin fluid

9. A patient has distending pain in abdomen with fissured tongue, his coating is yellow, thick and dry. It is due to:
A. Damp-heat in large intestine and body fluid is impaired
B. Excessive interior heat in large intestine and body fluid is impaired
C. Water-dampness retention and yang deficiency, instead of the heat syndrome
D. The evil has just entered the interior from the exterior, the heat is not severe and the body-fluid is not impaired

10. A patient suffers from edema with vomiting, diarrhea, cold limbs and skin, severe edema in lower limbs, swollen and pale tongue with gray coating, deep and thready pulse. It belongs to:
A. Excessive heat in heart
B. Wind cold in the lung
C. Yin edema due to Yang deficiency of spleen and kidney
D. Blood stasis in liver
Normal Tongue Coating

Tongue coating:

Tongue coating refers to the back of tongue body spread a layer of moss-like, under normal circumstances and run a thin white. Moss-like composition of this very complex, the present study is generally believed that it fell off the tongue by the mucosa keratinized epithelial cells, saliva, bacteria. Food debris and exudation of white blood cells and other components.

In TCM, the normal tongue coating is thin, white and properly moist, neither slippery nor dry. It means the gastric qi (Wei Qi) is vigorous and normal function of spleen and stomach.
Normal Tongue Coating

- Normal tongue coating is thin, white and properly moist, neither slippery nor dry.

- The formation and the appearance of tongue:
  - Under normal circumstances, as a result of chewing and swallowing movements, as well as saliva, rinse diet, often tongue constantly removed the surface material, showed only a thin layer of white tongue.
  - When sick, eat less or only into the soft food, so that chewing and tongue movements to reduce, or reduce saliva secretion, thickening on the tongue.
Normal Tongue Coating

- The formation and the appearance of tongue
  - In TCM, the tongue coating is from the steamed Gastric Qi upward (Wei Qi) and moistening of gastric fluid. It is just like grass growing in fertile soil.
  - If there is no coating, it means Gastric Qi is short of vitality. It is just like the grass can not grow in barren earth.
  - The coating in diseases is made up of gastric qi and steaming up evil in combination.

Inspection Tongue Coating

- Observing tongue coating includes observing the color and the texture of the coating. There are white, yellow, gray and black coating colors. The texture can be classified into thick or thin, slippery or dry, greasy or putrid, even or not, exfoliated, true or false.
- By inspection of tongue coating, it is helpful for understanding the location and nature of disease as well as the relation between healthy qi and pathogenic factors.
Several Abnormal Tongue Coating

White coating

- Manifestation:
  - The color of the tongue coating is white.

- Mechanism
  - The specific causes depend on different conditions.
  - Caused by anaerobic bacterium that thrives under the surface of the tongue.

- Indications:
  - External syndrome
  - Cold syndrome
Abnormal Tongue Coating---White coating

Several differentiations for white coating

1. External syndrome
   - Thin and white tongue coating
     Often seen at the primary stage of exogenous diseases and internal impairment without fever.
   - Light-red tongue with thin, white and moist tongue coating
     Indicates wind-cold external syndrome
   - Reddish margins and tip as well as thin, white and moistless tongue coating
     Indicates wind-heat external syndrome

The yellowish white coating
   - Suggests the disease is partially in both the interior and exterior.

Light-white tongue with thin and white tongue coating
   - Usually seen in internal deficient-cold syndrome
Abnormal Tongue Coating---White coating

2. White coating also indicates the cold syndrome due to cold-dampness.
   - (1) White, slippery and greasy coating
     - Due to spleen encumbered by cold-dampness. The accompanying symptoms are chest congestion, vomiting, dislike to drink, sweet taste in mouth, and tiredness.
   - (2) White and thick coating
     - White thick and dry coating
       - Due to dampness with loss of gastric qi and body-fluid.
Abnormal Tongue Coating---White coating

- White thick and slippery coating
  - Exogenous evil draws forth the internal dampness. It is accompanied by chilling and fever, stuffy chest, cough and expectoration.

- White thick and putrid coating (coating like bean curd on tongue, rotten coating)
  - Food retention in stomach but has not produced heat, and the turbid qi then steams up to tongue.

- White coating like piled flour (white greasy coating like wheat flour over all the tongue body, powder tongue coating)
  - It is seen in warm diseases, pestilence and seasonal diseases. It is because the exogenous turbid qi and heat evil spread over all three jiao.

- White coating like snow flakes on tongue (snow-flake coating)
  - It is the emblem of cold in spleen.
Abnormal Tongue Coating---White coating

White greasy tongue coating:
Internal retention cold-damp turbid

Bean curd tongue coating:
Food retention in stomach

Abnormal Tongue Coating---White coating

Powder tongue coating:
Exogenous turbid qi and heat evil spread over all three jiao

Snow-flake tongue coating:
Emblem of cold in spleen
Several Abnormal Tongue Coating

Yellow coating

- Manifestation:
  - The color of the tongue coating is yellow.

- Mechanism
  - The specific causes depend on different conditions.
  - May be due to bacteria infection, the emergence of active inflammation of gastric mucosa, resulting in functional gastrointestinal disorders, oral reduction in saliva secretion, reduced the role of self-cleaning, leading to oral flora of tongue disorders, inflammatory exudation and yellow moss growing, it remains to be further studied.

- Indications:
  - Internal syndrome
  - Heat syndrome

Abnormal Tongue Coating---Yellow coating

- During the course of a disease, the change of tongue coating from white to yellow suggests that the pathogenic factors have transformed into heat and transmitted to the interior.
- Coating is purely yellow without any white, it is the emblem of heat evil in the interior.
- The yellower the tongue coating, the severe the pathogenic heat.
- Light-yellow tongue coating indicates mild heat, deep-yellow tongue coating signifies sever heat.
- That is why yellow tongue coating usually appears simultaneously with red and deep-red tongue.
Abnormal Tongue Coating---Yellow coating

- Several differentiations for yellow coating
  - Yellow and thin coating with moisture
    - Wind-heat external syndrome, or inward invasion of heat transformed from wind-cold, or mild heat progress in internal heat syndrome. The heat is not severe and the body-fluid is not impaired.
  - Yellow and thin coating with dryness
    - Because the exogenous evil has just entered the Yangming or the initial stage of warm-heat evil enters the qi-phase.
    - The heat is not severe but damages the body-fluid. Depending on the constitution of the patient. Ex: Yin deficiency.
    - Evil is expelled and the body-fluid is already consumed.

- Yellow, thick and greasy coating
  - Accumulation of damp-heat in the interior, or due to phlegm and fluid retention transforming into heat, or food retention and heat putrefaction.

- Yellow, thick and dry coating
  - Excessive interior heat damages the body-fluid. If accompanied by cracked tongue, it is due to the severe excess heat which consumes the body-fluid and also leads to dry stools in intestines. It is usually accompanied by distending pain in abdomen.
Abnormal Tongue Coating---Yellow coating

- Yellow, slippery, and moist in swollen and tender tongue
  - Due to yang qi deficiency and water-dampness retention, instead of the heat syndrome.
- In general, yellow coating can also be classified as toughness and tenderness.
  - Tender yellow--In the beginning of diseases, the interior heat is not severe and the body-fluid is not exhausted.
  - Tough, dry and yellow coating—exorbitant heat in the spleen and stomach, the yang prevails over the yin, stomach fluid is used up.

Abnormal Tongue Coating---Yellow coating

Yellow and thin coating
Yellow, thick and greasy coating
Several Abnormal Tongue Coating

- **Gray coating**
  - **Manifestation:**
    - The color of the tongue coating is light black. It is the mild case of black coating. So it indicates the similar diseases to that of black coating.
  - **Mechanism**
    - Developed from white or yellow coating.
  - **Indications:**
    - Internal syndrome (cold or heat, deficiency or excess)
  - **All conditions of gray coating mean the severe cases and belong to interior syndromes. None of them is exterior syndrome.**

Abnormal Tongue Coating---Gray coating

- **Gray coating evolves either from white coating or from yellow coating.**
  - From white coating: cold syndrome
  - From yellow coating: heat syndrome
- **The gray color of the tongue coating corresponds to the degree of the pathological conditions.**
- **The deeper the tongue coating color, the sever the pathological conditions.**
Abnormal Tongue Coating---Gray coating

- Gray tongue coating in cold syndrome usually develops from white tongue coating, or cold evils attack the three yin directly.
  - For example, gray and moist tongue coating with light-white tongue signifies yang deficiency and cold excess, or cold dampness and internal retention of phlegm and fluid;
  - If cold evils attack the three yin directly, the coating will be gray and moist, with cold limbs and no thirst.
- Gray tongue coating in heat syndrome evolves from yellow tongue coating.
  - For instance, gray and dry coating with deep-red tongue or even prickly tongue is due to extreme heat consuming fluid.

Abnormal Tongue Coating---Gray coating

Gray coating in cold syndrome

Gray coating in heat syndrome
Several Abnormal Tongue Coating

Black coating
- Manifestation:
  - The tongue coating is deeper in color than gray coating. It usually comes from gray or brown coating.
- Mechanism:
  - Developed from gray coating.
- Indications:
  - Internal syndrome (cold or heat, deficiency or excess).
- All conditions of black coating mean the severe cases and belong to interior syndromes. None of them is exterior syndrome.

Abnormal Tongue Coating---Black coating

Several differentiations for black coating
- If black coating is moist----due to yang deficiency leading to cold or spleen disorder due to dampness.
- The tongue is swollen, moist, pale----cold-water insults the heart.
- Black and dry coating with red tongue, even prickled tongue----the heat consumes the water and the genuine-water of Shaoyin will be exhausted.
Abnormal Tongue Coating---Black coating

- Black, dry coating in middle of the tongue.
  - If with black lips and gums----suggests stomach failure
  - While without black lips and gums, is due to dry stools in the bowel.
- Black coating at tip of tongue is due to heart fire burning.
- Black & yellow coating on the root of the tongue suggests heat in lower-jiao.
Combined Colors of Coating

- The combined colors of tongue coating are commonly seen in clinical practice. They reflect the dynamic state and the complexity of disease. The common combined colors are:
  - Combined white and yellow coating
  - Combined white and yellow-black coating
  - Combined white and gray-black coating
  - Combined yellow and gray-black coating:

- Combined white and yellow coating:
  - (1) The changing of coating color from white to combined white and yellow ----the evils enter the interior from the exterior. In the time, because evils do not enter the interior completely and some of them still in the exterior, there are chilling and fever, because some evils transform into heat, there is dry throat; because evils block in the interior, there are chest choke and stuffy epigastrium.
  - (2) The changing from yellow to combined yellow and white is a good omen for recovery.
  - (3) If it is seen in internal miscellaneous diseases. It usually suggests the internal retention of phlegm-fluid, or heat in stomach.
Combined Colors of Coating

- Combined white and yellow-black coating
  1. If the coating on middle and root of the tongue is white and grayish yellow, and the other part is white, ---the damp-heat in Taiyang Meridian enters Yangming Meridian.
  2. If the mixed color is seen in all the coating—cold evil transmitting into the interior and transforming into fire.

Combined Colors of Coating

- Combined white and gray-black coating
  1. If the coating is moist and easy to be scraped off and there is no thirst or thirst but dislikes drinking, it is dampness in Taiyin Meridian
  2. If it is dry and thick and is hard to be scraped off, it is due to interior heat or damp-heat retained internally.
Combined Colors of Coating

- Combined yellow and gray-black coating:
  1. The slippery and greasy coating in black and yellow—damp-heat accumulated in Taiyin.
  2. The yellow coating with black in middle---interior excessive heat syndrome of Yangming.

### Summarization

<table>
<thead>
<tr>
<th>Color</th>
<th>Manifestation</th>
<th>Indications</th>
</tr>
</thead>
<tbody>
<tr>
<td>White coating</td>
<td>White</td>
<td>External syndrome (wind cold; wind heat; partial in both exterior and interior)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cold syndrome</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-- spleen encumbered by cold-dampness;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-- dampness with loss of gastric qi and body-fluid</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-- exogenous evil draws forth the internal dampness</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-- rotten coating; power coating; snow-flake coating</td>
</tr>
<tr>
<td>Yellow coating</td>
<td>Yellow</td>
<td>Internal syndrome (accumulation of damp-heat in the interior, or due to phlegm and fluid retention transforming into heat, or food retention and heat putrefaction; Excessive interior heat damages the body-fluid or without damage of body-fluid; yang qi deficiency and water-dampness retention, instead of the heat syndrome)</td>
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<td></td>
<td></td>
<td>Heat syndrome (wind heat; inward invasion of heat transformed from wind-cold, or mild heat progress in internal heat syndrome; warm-heat evil enters the qi-phase or yangming;)</td>
</tr>
</tbody>
</table>
## Contents of Tongue Diagnosis

### Chapter 6 The Texture of Tongue Coating

<table>
<thead>
<tr>
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</table>
| Gray coating | Gray | Internal syndrome (cold or heat, deficiency or excess)  
---develops from white tongue coating, or cold evils attack the three yin directly  
---evolves from yellow tongue coating. |
| Black coating | Black | Internal syndrome (cold or heat, deficiency or excess)  
---yang deficiency leading to cold or spleen disorder due to dampness.  
---cold-water insults the heart.  
---the heat consumes the water and the genuine-water of Shaoyin will be exhausted.  
---stomach failure  
---dry stools in the bowel.  
---heart fire burning.  
---heat in lower-jiao |
Normal Tongue Coating Texture

Tongue coating texture:

Thin white, neither thickness nor too thin, or even no coating, properly moist, neither slippery nor dry.

It is from the Gastric Qi (Wei Qi) and gastric fluid.

It means the gastric qi is vigorous and normal function of spleen and stomach.
Normal Tongue Coating Texture

The formation and the appearance of tongue
- Under normal circumstances, as a result of chewing and swallowing movements, as well as saliva, rinse diet, often tongue constantly removed the surface material, showed only a thin layer of white tongue.
- When sick, eat less or only into the soft food, so that chewing and tongue movements to reduce, or reduce saliva secretion, thickening on the tongue.

In TCM, the tongue is from the steamed Gastric Qi (Wei Qi) upward and moistened by gastric fluid. It is just like grass growing in fertile soil.
- If there is no coating, it means Gastric Qi is short of vitality. It is just like the grass can not grow in barren earth.
- The coating in diseases is made up of gastric qi and steaming up evil in combination.
Inspection Tongue Coating Texture

- Observing tongue coating texture includes thick or thin, slippery or dry, greasy or putrid, even or not, peeled or not, wax or wane, true or false.
- By inspection of tongue coating texture, it is helpful for understanding the development of diseases as well as the relation between healthy qi and pathogenic factors.

Several Abnormal Tongue Coating Texture

- **Thinness**
  - **Manifestation:**
    - Bottom visible. That means the tongue coating with dimly visible body of the tongue is thin coating.
  - **Mechanism**
    - The specific causes depend on different conditions.
    - Gastric qi and steaming up evil in combination; chewing and tongue movements to reduce, or reduce saliva secretion, etc;
  - **Indications:**
    - External syndrome
    - Mild syndrome of internal diseases
Abnormal Tongue Coating Texture---Thin coating

Several Abnormal Tongue Coating Texture

- **Thickness**
  - **Manifestation:**
    - Bottom invisible. That means the tongue coating with invisible body of the tongue is thick coating.
  - **Mechanism**
    - The specific causes depend on different conditions.
    - Gastric qi and steaming up evil in combination
  - **Indications:**
    - Internal syndrome
      - For example, retentions of food, fluid, phlegm and/or dampness, the coating is usually thick.
Abnormal Tongue Coating Texture---Thick coating

The tongue body can be seen or body can not be seen is taken as the standard of judging thickness and thinness.

Observing the thickness and thinness of coating is helpful to know the deep and shallow, the wax and wane of disease.

If thin coating becomes thick, it indicates that evil enters the interior from the exterior and the disease changes from mild to severe, the disease is worsening.

While thick coating turns into thin, it is the mark of evils being cleared up or expelled, the disease is improving.

Abnormal Tongue Coating Texture---Thinness and Thickness
Several Abnormal Tongue Coating Texture

- **Moistness**
  - **Manifestation:**
    - The tongue coating that is moist with moderate dampness is called moist tongue coating. The tongue coating with excessive dampness and slipperiness, even dripping is called slippery tongue coating.
  - **Mechanism**
    - Sufficiency or retention of fluid upward distribution.
  - **Indications**
    - Moist tongue coating—sufficiency and upward distribution of body fluid
    - Slippery tongue coating—cold dampness, or deficiency of yang qi and failure of qi to transform fluid.

Several Abnormal Tongue Coating Texture—Moist coating

- Several moist tongue coating
  - If there is much fluid on coating, even dripping when stretching out tongue—often seen in cold syndrome or damp syndrome.
  - If it is the condition that evil has just entered the interior, and the coating is white, slippery and greasy, it is due to cold in stomach.
Several Abnormal Tongue Coating Texture—Moist coating

- If the retention of water on tongue is excessive and saliva is ready to drip, it is called slippery coating, due to cold or damp syndrome. They are caused by invasion of the interior by cold-dampness or by stagnation of phlegm-dampness in the interior due to Yang deficiency floating upward on the surface of the tongue.

- The spleen deficiency with excessive dampness is shown by pale tongue with slippery and greasy coating, chest fullness, poor appetite, etc.

Moist tongue coating
Slippery tongue coating
Several Abnormal Tongue Coating Texture

**Dryness**

- **Manifestation:**
  - The dry tongue coating, without fluid or even fissured is called dry tongue coating. The tongue coating that is dry, rough and sandy is called rough tongue coating.

- **Mechanism:**
  - Consumption of fluid by excessive heat or deficiency of yin.

- **Indications:**
  - Consumption of fluid by excessive heat
  - Deficiency of yin

---

Several Abnormal Tongue Coating Texture—Dry coating

- The dry coating without fluid on it, even rough like sand on it, is called rough coating. It is due to deficiency body-fluid resulting from heat or depletion of yin.

- Dry coating in yellow is usually due to extreme heat in stomach. If it is black, it is usually due to yin exhaustion and extreme heat, or phlegm heat in chest.

- Dry coating with light-whitish tongue accompanied by chest oppression and dry mouth without desire to drink, it is usually due to obstruction of yang or deficiency of yang qi and failure of qi to transform fluid.
Several Abnormal Tongue Coating Texture—Dry coating

- The moistness and dryness reflect the wax and wane and the distribution of body-fluid. The well moisturized coating is taken as the normal condition. It reflects the normal state of body-fluid.
- During the course of a disease, the change of the tongue coating from moisture to dryness indicates consumption of body fluid and severity of heat.
- The change of tongue coating from dryness to moisture suggests abatement and gradual restoration of body fluid.
Several Abnormal Tongue Coating Texture

- **Greasiness**
  - **Manifestation:**
    - The greasy means sticky, smooth, and fine particles. It is thicker in middle and thinner in margin and difficult to be scraped off. It looks like being covered by greasy mucus.
  - **Mechanism**
    - The yang qi is encumbered by accumulated turbid-dampness inside.
  - **Indications**
    - Dampness, phlegm, retention of food

Several Abnormal Tongue Coating Texture—Greasy coating

- If it is white greasy coating
  - Turbid-dampness or cold-dampness.
- If it is yellow greasy coating
  - Damp-heat, phlegm-heat, food-retention.
Several Abnormal Tongue Coating Texture—Greasy coating

- **Putrid (curdy)**
  - **Manifestation:**
    - The coating looks like coarse mulch granules as putrid bean dregs piling on tongue, and it is easy to be scraped off with thickness on both the center and margins, it is called putrid coating.
  - **Mechanism**
    - The excessive yang-heat steaming the turbid and putrid qi up.
  - **Indications**
    - Retention of food in the stomach and intestines
    - Accumulation of phlegm and turbid substance
Several Abnormal Tongue Coating Texture—Putrid coating

- “Pus-putrid coating” from internal abscess. The coating looks like pus, white with little red color, thick and sticky. The white one is seen in lung carbuncle. The yellow one is seen in stomach carbuncle.
- “Moldy-putrid coating” (festered curdy coating). The coating is white and all over tongue or like moldy rice. Because the rotten stomach makes the fluid in it transformed into turbid qi.
Several Abnormal Tongue Coating Texture

- **Peeled coating**
  - **Manifestation:**
    - The coating on the tongue has peeled partially or completely during the course of a disease. It is divided into anterior, medium, patched peeled tongue coating. If completely peeled, it is called mirror-like coating.
  - **Mechanism**
    - Due to failure of deficient gastric qi to fumigate the tongue or due to failure of the exhausted gastric yin to moisten the tongue.
  - **Indications**
    - Gastric qi deficiency, or even exhaustion
    - Gastric yin deficiency, or even exhaustion
    - Exhaustion of gastric qi and yin (Mirror-like coating)

Several Abnormal Tongue Coating Texture—peeled coating

Peeled coating

Mirror-like coating
Several Abnormal Tongue Coating Texture

**True and false coating**

- **Manifestation**
  - The rooted or not rooted is taken as the criterion to distinguish the true from the false.
  - The rooted coating is the coating which is closely adhered to the tongue body and is difficult to be scraped off, it looks like it is growing out from the tongue body. It is called a true coating.
  - A not-rooted coating is a thick coating with clear boundaries and is easy to be scraped off. It looks as if it was put on the tongue body. It is a false coating.

**Indications**

- **Thin rooted coating**
  - 1) seen in normal persons
  - 2) seen in a condition of mild illness in which the vital qi is not harmed
- **Thick rooted coating**
  - Excessive evils and sufficient vital qi
- **Not-rooted coating**
  - Too deficient gastric qi and yin to produce the coating.
  - Prolong disease with not-rooted coating, it is hard to be cured. It is due to exhaustion of vital qi and failure of stomach and kidney qi.
Combining consideration of tongue texture and coating

- **Pale tongue with different kinds of coatings:**
  - Pale tongue with thin, white transparent coating
    - Indicates deficient cold of the spleen and stomach
  - Pale tongue with white, thick and slippery coating
    - Due to cold-dampness in spleen and stomach.
  - Pale tongue with yellow, cracked coating
    - Due to weakness of qi and body-fluid of the constitution and then attacked by fire evil which damages body-fluid.
  - Pale tongue with yellow, slippery coating
    - Due to inactivity of spleen Yang which leads to water-dampness retention interior turn into heat.

- **Red or crimson tongue with different kinds of coatings:**
  - Red tongue with white, thin coating
    - Yin deficiency and attacked by wind-cold
  - Red tongue with white greasy coating
    - Dampness in qi-phase and heat in nutrient-phase
    - Yin deficiency accompanied by dampness in stomach and intestines or food-retention
  - Red tongue with white flour-like coating
    - Accumulation of warm pestilential toxin
Combining consideration of tongue texture and coating

- Red with yellow, dry and cracked
  - Body fluid is consumed with heat accumulating in intestines with waste.
- Red tongue with some black coating on tip
  - Due to internal heat in heart
- Red with gray or black, dry coating
  - The sign of excess heat and exhausted body-fluid.
- Crimson tongue with yellow-white coating
  - Evil in qi and nutrient
- Crimson with yellow, greasy coating
  - Deficient heat in nutrient phase with phlegm or fluid-retention inside.
- Bluish purple tongue with different kinds of coatings:
  - With white, slippery coating
    - Yin-cold in interior.
  - With yellow, dry coating
    - Heat excess inside
  - Light purple tongue with gray coating
    - If moist—cold evil
    - If dry—heat enters the blood-phase in warm disease
  - Blue tongue with black coating
    - Extreme cold
Modern research on Tongue

- The pale tongue is often seen in deficient syndrome. It is related to anemia, dysfunction of digestive system which lead to malnutrition and hypo-metabolism.
- The red and crimson tongue is seen in fevers, infections, dehydration, hyper-metabolism, inflammation.
- The purple tongue is usually seen in heart diseases, liver and gallbladder diseases and cancers.

Summarization of Tongue Diagnosis
### Summarization of Tongue Body Color

<table>
<thead>
<tr>
<th>Tongue Body Color</th>
<th>Indications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pink</td>
<td>normal or mild disorder</td>
</tr>
</tbody>
</table>
| Pale              | yang, blood a/or qi def  
  Deficiency Cold  
  + thin & dry = blood def  
  + wet = qi def  
  + swollen = qi def  
  + swollen & wet = yang def |
| Red               | Heat:  
  + no coating = yin def empty heat  
  + yellow coat = excess heat  
  + wet = damp heat  
  + dry = injured fluids  
  Red tip of the tongue = heart fire  
  Red side of the tongue = liver fire  
  Red small points on the tongue = heat toxin |
| Crimson           | Extreme heat, more severe conditions than red |
| Purple            | Excess: Heat; Yin cold; Blood stasis; Phlegm damp; Alcoholic toxin  
  Deficiency: Deficient cold (moist); Stomach and kidney yin exhaustion (pig liver) |
| Blue              | Internal Yin cold syndrome—wholly bluish tongue  
  Blood stasis—bluish side of tongue |

### Summarization of Tongue Texture and Shape

<table>
<thead>
<tr>
<th>Texture</th>
<th>Manifestation</th>
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</tr>
</thead>
</table>
| Tender Tongue   | Delicate, fine, smooth, moistened, lustrous surface, light color and bulgy appearance. | 1) Deficiency syndrome (yang or qi and yin)  
  2) Cold syndrome |
| Tough Tongue    | Tough and sturdy, dry surface and dull color                                  | 1) Excess syndrome  
  2) Heat syndrome |
| Bulgy Tongue    | Bigger than usual is called bulgy tongue.                                     | 1) Deficiency syndrome (qi or yang deficiency)  
  2) Dampness and phlegm syndrome |
| Swollen Tongue  | Enlarged and swollen tongue body, even full of the mouth, is called a swollen tongue. | Excess syndrome (heat in heart and spleen; alcoholism Or intoxication); Sometimes deficiency syndrome (spleen and kidney yang deficiency) |
| Thin Tongue     | Thinner and emaciated than usual.                                             | 1) Deficiency of qi and blood  
  2) Consumption of yin fluid |
| Fissured Tongue | Various fissures on the tongue                                                 | Deficiency of Essence and blood: Excessive Heat consumption fluid; Health people |
| Prickly Tongue  | The spots or prickles on the surface of the tongue which like strawberry      | Excess of evil heat, even toxic heat  
  (Stagnated heat in the nutrient-blood level) |
| Tooth-mark tongue | The margins of the tongue are printed with tooth marks.  | 1) Deficiency of qi or yang qi  
  2) Internal retention of dampness |
### Summarization of Tongue State

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<tr>
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<tr>
<td><strong>Stiff Tongue</strong></td>
<td>Not soft; inflexible with difficulty in moving or inability of turning.</td>
<td>Exogenous diseases (Hyperactive of evil heat; Invasion of heat into the pericardium; Obstruction of phlegm and turbid). Internal impairment (Liver wind complicated by phlegm; Excessive heat consuming body fluid or invasion of heat into the pericardium; Wind-phlegm obstructing collaterals; Wind stroke).</td>
</tr>
<tr>
<td><strong>Atrrophy Tongue</strong></td>
<td>Flaccid, weak, and unable to move. Too weak to protrude and withdraw.</td>
<td>Decline of qi and blood; Extreme consumption of fluid caused by advanced stage in exogenous febrile disease.</td>
</tr>
<tr>
<td><strong>Shivering Tongue</strong></td>
<td>Shivering and swaying; Not controlled by the patient</td>
<td>1) Deficiency syndrome (qi or yang deficiency) 2) Dampness, phlegm syndrome; Endogenous liver wind</td>
</tr>
<tr>
<td><strong>Deviated Tongue</strong></td>
<td>When tongue protruding out of mouth, it is deviated to one side.</td>
<td>Wind stroke or premonitory sign of wind stroke.</td>
</tr>
</tbody>
</table>

### Summarization of Tongue State

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<td><strong>Short Tongue</strong></td>
<td>The tongue contracts and shortens and is unable to stretch, even can not reach teeth.</td>
<td>Critical condition. Either cold or heat syndrome; Either phlegm or deficiency syndrome</td>
</tr>
<tr>
<td><strong>Protruding and wagging Tongue</strong></td>
<td>The tongue that stretches out but is unable to retreat is called a protruding tongue. The tongue that frequently protrudes out but immediately draws back or licks the lips or corners of the mouth is called wagging tongue (playing tongue).</td>
<td>Protruding--Heat in the heart and spleen; Pestilence into the heart or health qi exhaustion, usually seen in critical condition. Wagging----Heat in the heart and spleen; Premonitory sign of endogenous wind; Also seen in children dementia</td>
</tr>
<tr>
<td>Color</td>
<td>Manifestation</td>
<td>Indications</td>
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<td>---------------</td>
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</tr>
</tbody>
</table>
| White coating | White        | External syndrome (wind cold; wind heat; partial in both exterior and interior)  
                    |                 | Cold syndrome  
                    |                 |  
                    |                 | -- spleen encumbered by cold-dampness;  
                    |                 | -- dampness with loss of gastric qi and body-fluid  
                    |                 | -- exogenous evil draws forth the internal dampness  
                    |                 | -- rotten coating; power coating; snow-flake coating  
| Yellow coating| Yellow       | Internal syndrome (accumulation of damp-heat in the interior, or due to phlegm and fluid retention transforming into heat, or food retention and heat putrefaction; Excessive interior heat damages the body-fluid or without damage of body-fluid; yang qi deficiency and water-dampness retention, instead of the heat syndrome)  
                    |                 | Heat syndrome (wind heat; inward invasion of heat transformed from wind-cold, or mild heat progress in internal heat syndrome; warm-heat evil enters the qi-phase or yangming)  |

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| Gray coating  | Gray         | Internal syndrome (cold or heat, deficiency or excess)  
                    |                 | --- develops from white tongue coating, or cold evils attack the three yin directly  
                    |                 | --- evolves from yellow tongue coating.  |
| Black coating | Black        | Internal syndrome (cold or heat, deficiency or excess)  
                    |                 | --- yang deficiency leading to cold or spleen disorder due to dampness.  
                    |                 | --- cold-water insults the heart.  
                    |                 | --- the heat consumes the water and the genuine-water of Shaoyin will be exhausted.  
                    |                 | --- stomach failure  
                    |                 | --- dry stools in the bowel.  
                    |                 | --- heart fire burning.  
                    |                 | --- heat in lower-jiao  |
### Summarization of Tongue Coating Texture

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<tr>
<td>Thin coating</td>
<td>Bottom visible. That means the tongue coating with dimly visible body of the tongue is thin coating.</td>
<td>External syndrome Mild syndrome of internal diseases</td>
</tr>
<tr>
<td>Thick coating</td>
<td>Bottom invisible. That means the tongue coating with invisible body of the tongue is thick coating.</td>
<td>Internal syndrome For example, retentions of food, fluid, phlegm and/or dampness, the coating is usually thick.</td>
</tr>
<tr>
<td>Moist coating</td>
<td>The tongue coating that is moist with moderate dampness is called moist tongue coating. The tongue coating with excessive dampness and slipperiness, even dripping is called slippery tongue coating.</td>
<td>Moist tongue coating---sufficiency and upward distribution of body fluid Slippery tongue coating---cold dampness, or deficiency of yang qi and failure of qi to transform fluid.</td>
</tr>
<tr>
<td>Dry coating</td>
<td>The dry tongue coating, without fluid or even fissured is called dry tongue coating. The tongue coating that is dry, rough and sandy is called rough tongue coating.</td>
<td>Consumption of fluid by excessive heat Deficiency of yin</td>
</tr>
<tr>
<td>Greasy coating</td>
<td>The greasy means sticky, smooth, and fine particles. It is thicker in middle and thinner in margin and difficult to be scraped off. It looks like being covered by greasy mucus.</td>
<td>Dampness, phlegm, retention of food</td>
</tr>
<tr>
<td>Putrid (curdy) coating</td>
<td>The coating looks like coarse mulch granules as putrid bean dregs piling on tongue, and it is easy to be scraped off with thickness on both the center and margins, it is called putrid coating.</td>
<td>Retention of food in the stomach and intestines Accumulation of phlegm and turbid substance</td>
</tr>
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| Peeled coating   | The coating on the tongue has peeled partially or completely during the course of a disease. It is divided into anterior, medium, patched peeled tongue coating. If completely peeled, it is called mirror-like coating. | Gastric qi deficiency, or even exhaustion  
Gastric yin deficiency, or even exhaustion  
Exhaustion of gastric qi and yin (Mirror-like coating) |
| True coating     | The rooted coating is the coating which is closely adhered to the tongue body and is difficult to be scraped off, it looks like it is growing out from the tongue body. It is called a true coating. |                                                                                               |
| False coating    | A not-rooted coating is a thick coating with clear boundaries and is easy to be scraped off. It looks as if it was put on the tongue body. It is a false coating. |                                                                                               |