Tongue Diagnosis

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What can you tell about people from their tongues?
The Physiology of the Tongue and Oral Cavity
It isn’t just the little part that sticks out

• This is an ox tongue, but it shows the underground anatomy.
Lingual tonsils

- Lingual tonsils are normal rounded masses of lymphatic tissue that cover the posterior region of the tongue and drain into the single tonsillar crypt.
Muscles of the Tongue

- Genioglossus
- Styloglossus
- Hyoglossus
- Palatoglossus
- Stylo Hyoideus
Extrinsic muscles

Extrinsic tongue muscles, by definition, originate from structure outside the tongue and insert into the tongue. The four paired extrinsic muscles protrude, retract, depress, and elevate the tongue:

<table>
<thead>
<tr>
<th>Muscle</th>
<th>From</th>
<th>Nerve</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genioglossus muscle</td>
<td>mandible</td>
<td>hypoglossal nerve</td>
<td>protrudes the tongue as well as depressing its center.</td>
</tr>
<tr>
<td>Hyoglossus muscle</td>
<td>hyoid bone</td>
<td>hypoglossal nerve</td>
<td>depresses the tongue.</td>
</tr>
<tr>
<td>Styloglossus muscle</td>
<td>styloid process</td>
<td>hypoglossal nerve</td>
<td>elevates and retracts the tongue.</td>
</tr>
<tr>
<td>Palatoglossus muscle</td>
<td>palatine aponeurosis</td>
<td>pharyngeal branch of vagus nerve</td>
<td>depresses the soft palate, moves the palatoglossal fold towards the midline, and elevates the back of the tongue.</td>
</tr>
</tbody>
</table>
Intrinsic Muscles of the Tongue

Four paired intrinsic muscles of the tongue originate and insert within the tongue, running along its length. These muscles alter the shape of the tongue by: lengthening and shortening it, curling and uncurling its apex and edges, and flattening and rounding its surface.

- The **superior longitudinal muscle** runs along the superior surface of the tongue under the mucous membrane, and elevates, assists in retraction of, or deviates the tip of the tongue. It originates near the epiglottis, the hyoid bone, from the median fibrous septum.

- The **inferior longitudinal muscle** lines the sides of the tongue, and is joined to the styloglossus muscle.

- The **verticalis muscle** is located in the middle of the tongue, and joins the superior and inferior longitudinal muscles.

- The **transversus muscle** divides the tongue at the middle, and is attached to the mucous membranes that run along the sides.
Papillae

The oral part of the tongue is covered with small bumpy projections called papillae. There are four types of papillae:

- **filiform** (thread-shape)
- **fungiform** (mushroom-shape)
- **circumvallate** (ringed-circle)
- **foliate** (leaf-shape)

All papillae except the filiform have **taste buds** on their surface. The circumvallate are the largest of the papillae. There are 8 to 14 circumvallate papillae arranged in a V-shape in front of the sulcus terminalis, creating a border between the oral and pharyngeal parts of the tongue.
Circumvallate papillae
Filiform papillae

- Make up most tongue fur
- Do not taste
- Can pick up color
- Can be stimulated into overgrowth for very furry tongues
- Can become keratinized
Don’t confuse the fungiform papillae with petacchie that mean something in OM. They would need to be swollen or angry red.
There are five tastes: sweet, sour, salty, sweet and savory or (umami)

All parts of the tongue have abilities to taste each flavor but they distribute differently.

The bogus map derives from a mistranslation in a scientific paper

All papillae except the filliform can taste
Meridians of the Tongue

- All except the Dai
- Du and Ren connect
- Heart goes to tip of tongue
- St and Sp to center of tongue
- Liver and GB to sides
- Many go through divergents and tendino musculo channels
Vasculature of the tongue

The underside of a human tongue

• The tongue receives its blood supply primarily from the lingual or ranine artery, a branch of the external carotid artery. The floor of the mouth also receives its blood supply from the lingual artery.
Interior vasculature

- Anterior lingual gland
- Ranine artery
- Lingual nerve
- Orifice of submaxillary and sublingual glands
- Sublingual gland
Microsystems and the Tongue
Chapter Nine

Points of Tongue Acupuncture

- Zuoquan
- Zhimai
- Yepang
- Shengen
- Yinxue
- Xiazhixue
- Xiaochangxue
- Shenxue
- Shangzhixue
- Pangguangxue
- Juquan
- Ganxue
- Danxue
- Dachangxue
- Zhongju
- Yanhouxue
- Shenzhu
- Sanjiaoxue
- Muxue
- Jinjin Yuye
- Haiquan
- Exue
- Erxue
- Bixue
- Pixue
- Weixue
- Feixue
- Xinxue
Tooth Microsystem of Mouth
<table>
<thead>
<tr>
<th>SENSE ORGANS</th>
<th>Inner Ear</th>
<th>Maxillary Sinus</th>
<th>Ethmoid Cell</th>
<th>Eye</th>
<th>Frontal Sinus</th>
<th>Frontal Sinus</th>
<th>Eye</th>
<th>Ethmoid Cell</th>
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<th>Inner Ear</th>
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<tbody>
<tr>
<td></td>
<td>Hand skeletal</td>
<td>foot</td>
<td>sacroiliac joint</td>
<td>Front of knee</td>
<td>Hand radial</td>
<td>Foot</td>
<td>Sacroccocyx</td>
<td>Sacroccocyx</td>
<td>Hand radial</td>
<td>Foot</td>
</tr>
<tr>
<td>VERTEBRAE</td>
<td>T1 T5 T6 S1 S2</td>
<td>T11</td>
<td>T12</td>
<td>L1</td>
<td>C5 C6 C7 T3 T4 L4 L5 T9 T10</td>
<td>L3 L3 S3 S4 S5 Coccyx</td>
<td>T9 T10</td>
<td>C5 C6 C7 T3 T4 L4 L5 T11</td>
<td>T12</td>
<td>L1</td>
</tr>
<tr>
<td>ORGANS</td>
<td>Heart</td>
<td>Pancreas</td>
<td>Lung</td>
<td>Liver</td>
<td>Kidney</td>
<td>Kidney</td>
<td>Liver</td>
<td>Lung</td>
<td>Pancreas</td>
<td>Heart</td>
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<tr>
<td></td>
<td>Duodenum</td>
<td>Stomach</td>
<td>Large intestine</td>
<td>Gallbladder</td>
<td>Bladder Urogenital area</td>
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<td>Stomach</td>
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<tr>
<td>ENDOCRINE GLANDS</td>
<td>Ant. lobe of pituitary</td>
<td>Para-thyroid</td>
<td>Thyroid</td>
<td>Post. lobe of pituitary</td>
<td>Pineal gland</td>
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<td>Thyroid</td>
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<tr>
<td>OTHERS</td>
<td>CNS</td>
<td>Psyche</td>
<td>Mammary gland</td>
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<td>Psyche</td>
<td></td>
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<tr>
<td>ENDOCRINE GLDS TISSUE SYSTEMS</td>
<td>Peripheral nerves</td>
<td>Arteries</td>
<td>Veins</td>
<td>Lymph vessels</td>
<td>Gonad</td>
<td>Adrenal gland</td>
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<td>JOINTS</td>
<td>Shoulder and elbow</td>
<td>Front of knee</td>
<td>Back of knee</td>
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Chinese Tongue Diagnosis
How do we look?

- Good light or a penlight
- Ask if they have eaten anything with strong colors recently
- Ask patient to let out her tongue
- The tongue should be relaxed while extended
- 15-20 seconds
- If the tongue reddens or stiffens with prolonged extension, have them stop and relax
What do we look for?

- Vitality: Shen of the tongue
- Body map
- Color of the tongue body
- Color of the tongue fur
- Thickness of the tongue fur
- Shape of the tongue
- Swellings
- Cracks
- Petacchie (red spots)
- Sublingual veins
The Chinese Tongue Map
Ayurvedic Tongue is Similar

- The area considered “pancreas” is called “Spleen” in the Chinese tongue but the function is similar.
- The area ascribed to Liver and Gallbladder says liver and spleen, but again has similar functions.
Color of the Tongue Body
Pale Tongue

- Pale and slightly wet
- Pale and slightly dry
- Slightly pale
- Pale on sides all along the edges
- Pale on the sides in center
- Pale orangey
- Pale w/o coat
- Yang deficiency
- Blood deficiency
- Qi deficiency
- Liver Blood deficiency
- Spleen Blood deficiency
- Liver Blood deficiency
- Liver Blood deficiency
Red tongue and coat combos

- Red tongue with coating
- Red tongue without coating
- Normal tongue without coating
- Full heat
- Empty (Deficient) heat
- Yin deficiency
Purple Tongue

- A purple tongue always indicates stasis
- Red purple is stasis from heat
- Blue purple is stasis from cold
- Purple in Liver areas indicates Liver Blood stasis or Blood stasis in the Uterus
- Breast/chest area: Blood stasis in the Heart or Breast, COPD or asthma
- Center: Blood stasis in the Stomach
Tongue fur

- Color: clear, white, yellow, black, brown
- Thickness: thick, thin, gone
- Wet or Dry
- Rooted or not
- Distribution
Tongue coating:

- Thin, white: Normal
- Thick: Excess
- Yellow, thick, glossy: Damp heat, Excess heat
- Dry, yellow: Damage from heat or dampness
- Brown: Deficient yin
- Missing or peeled:
  - Heart yin deficiency if it's on the tip of the tongue
  - Kidney yin deficiency if it's all over the tongue or at the back of the tongue and the tongue body is red.
Rootedness

• The tongue coat should look as if it were growing out of the tongue rather than as if scattered like mown grass

• Coating with root:
  – Thin: Stomach Qi healthy
  – Thick: Pathogenic factors

• Coating without root:
  – Thin- Stomach Qi weakened
  – Strong pathogenic factors with weak St. Qi
Yellow fur
Black or Brown Fur
Thick fur
Thin fur
No fur
Location of Tongue Fur
Non pathological tongue coat (yet!)
The Color of the Tongue Body

- Pale red tongue body
- Pink normal tongue body
- Slightly red tongue body
- Scarlet red tongue body
- Purple tongue body
Tongue Body Shape and Bearing: Thin Tongue

- Thin refers to the thickness not width
- Body of tongue is formed by fluids and Blood, so thin is Blood or Yin Deficient
- If pale, Blood Deficient*
- If without coat, Yin Deficient

*Not all Blood Deficient tongues are thin.
Swollen

- Along full edge, red
- Sides in middle, pale
- On sides in chest/breast area
- Swollen tip, red
- Swelling of front third

- Liver Heat
- Chronic Spleen Qi deficiency
- Phlegm in chest or breast
- Heart Fire
- Phlegm in the Lungs
Swollen Tongues
Teethmarks

• Indicate chronic Spleen-Qi deficiency
• Not necessarily swollen in all cases.
Stiff or Flaccid Tongues

• Stiff tongue:
  – Internal Wind
  – Blood stasis
  – Severe Yin Deficiency

• Flaccid tongue
  – Lack of body fluids
  – Blood deficiency
Short tongue

• If wet: severe Yang deficiency
• If peeled and red: severe Yin deficiency
Short Tongues
Curled Tongue  May be a sign of:

- Sides curled up:  
  - Liver qi stagnation
  - Dampness or phlegm
  - If the sides are swollen and red, it may indicate Liver fire
Long Tongues
What can you tell about him?
Deviated

- Liver Wind or Heart Deficiency (in a young person)
Quivering and Moving

• Moving tongues move slowly from side to side with large movements that the patient cannot control. This indicates internal wind and is seen in the elderly.

• Quivering tongues tremble rapidly with small movements from side to side when extended. Usually indicates chronic Spleen Qi or Spleen Yang deficiency
Cracks: Excess heat or yin deficiency

- Central long thin midline crack, constitutional Heart deficiency, with tendency to emotional problems
- Stomach/Spleen imbalance if a short wide crack is in the center or constitutional ST deficiency
- If the crack is wide and has yellow inside, phlegm
- Short diagonal crack in Lung area- past lung disease
- If crack is mild, may indicate nothing
- Very deep midline crack with other cracks stemming off of it- Kidney Yin deficiency
More cracks
Red Points and Grains

- Physiological Ministerial Fire ascending to communicate with the Heart forms red grains on the surface of the tongue (offshoot of the heart.)
- These red grains are normal and indicate that Ministerial Fire is sufficient
- When this Fire becomes pathological it flares upward causing grains to get redder and to protrude from the surface of the tongue and they are called Red Points.
The intensity of redness, protrusion and correlates with the intensity of the heat.
Red Points

- On the full sides of the top of the tongue, relate to Liver Heat
- In the center sides of the top of the tongue or the center, Stomach Heat
- At the tip of the tongue Heart Fire
- On either side of the tip, Lung Heat
- At the root, Damp heat in the Lower Jiao
- In external disease: Wind Heat
- If they become denser in the tongue center, the disease is progressing to the interior
Red Spots

• Red spots relate to the circumvallate papillae at the base of the tongue

• They are pathological if red or purplish, indicating blood stagnation
In Wind Heat Disease the red points will cluster based on the penetration of the disease.
Sublingual Veins

- Useful to rate stagnation on a two point basis
- +1 Distended only, normal color
- +1 Purple but not distended
- +2 Purple and distended
Sublingual Vein Diagnosis

- Distended, not dark
- Thin
- Distended and dark
- Dark and dry
- Dark swollen and wet
- Reddish and shiny
- Yellowish
- White and slippery
- Swollen, white and sticky

- Qi deficiency
- Yin deficiency
- Blood stasis in upper jiao
- Yin def w empty heat
- Lu, Sp and K def w fluid accumulation
- Damp heat
- Damp
- Cold-dampness
- Dampness and Blood stasis
Modern Chinese Sublingual Dx

• Dark purple
• Distended, dark and crooked
• Look like earthworms protruding, dark, crooked
• Small nodules like wheat grains

• Hardening of the arteries
• Hardening of the arteries, hypertension
• Severe ateriosclerosis or hypertension
• Hardening of arteries in heart disease

Note these are prodomal (predictive) signs
Effects of Medications on Tongue

- Antibiotics: patches w/o coat, St. yin hurt
  - Tetracyclines worse, eventually gets cold
- Bronchiodilators- red tongue tip
- Diuretics- thin, yin deficient
- Anti-inflammatories- red points, thin body, peeled
- Antineoplastic drugs- black or brown, dry fur
Red Tongues and Heat Diseases
Excess heat - excess yang

Excess heat often relates to inflammation and possibly infection in Western medicine. Some tongues have red spots on them and this too is a sign of heat. It is possible for a tongue to be of normal color but have small red spots.

Where there is excess heat in the body, foods which are considered to be warm in nature should be avoided - these include red meat, excess refined sugar, spicy food, chicken, alcohol and coffee. The diet should be light with increased portions of vegetables, and little or no meat. Food should be raw, steamed or boiled and not fried in oil or butter.

Fever, a red face and flushing, thirst, sweating, a feeling of heat, constipation, dark and scanty urine, dryness in the mouth and throat and a strong rapid pulse.
True Heat

• Confirmatory signs: red face, red tongue, anger or irritation, rapid pulse, feverish

Jin Yin Hua to clear excess heat
Heart heat with dampness in lower body

- More excess than deficient heat- note fullness in tongue
- Young people show less
• Look for confirming signs
• This case of measles shows an excess heat skin rash
• The raised sarcoid lesions are yang, excess lesions
Liver Fire with Heat Toxin and Phlegm

Dots on tongue show heat toxin.
Not all papillae are toxic heat- raised, angry
Person has dampness in digestion- some stagnation
His chronic conjunctivitis would most likely be due to liver fire.
Liver fire from excess smoking and drinking

- Liver opens to the eyes
- Possible hepatitis
- Blood heat possibly (eyes)
- Excess condition—not dry, deficient
Foods for Excess Heat
-Yang Excess

- Watermelon
- Lettuce
- Cucumber
- Soya milk
- Barley
- Seaweed
- Mung beans
- Coriander leaf juice

Cucumber and mung beansprout rolls
Deficient Heat

Deficient heat - Deficient yin

Low grade fever worse in the late afternoon and evening, night sweats, sensation of heat and burning in the palms of the hands, soles of the feet and the centre of the chest, thirst quenched in sips which becomes more pronounced in the late afternoon and evening, a weak and rapid pulse.

The picture of deficient yin usually occurs as a result of over work and a hectic stressful lifestyle. It needs to be treated by foods that are nourishing, build up the body and increase fluids. The following foods might be chosen to assist healing in someone with either excess or deficient heat. They all have a cooling action on the body. However, those which work on yin deficiency are more building and strengthening in effect.
Confirming signs: Malar Flush

• In this case the yin deficient malar flush show signs of stasis

• In others it looks like rosy cheeks.
Deficient heat in liver and heart

- Tongue is overall thin, dehydrated and skin tends to be pale, so not excess heat.
Heart heat with damage to fluids (tonsils removed)
Heart and Liver yin deficiency

- 26 year old woman, thin, shy, has PCOS, insulin resistance and acne. Eats a good insulin resistance diet.
- Note narrow tongue with erosion, red point, dry tongue fur
Dampness with Deficient Heat

45 year old woman with extreme mold disease, lupus, and celiac. Note cracks in the tongue due to yin deficiency, heat in heart at the tip, but yin is burning out; blackness due to extreme damp
Chronic yin deficient heat leading to blood stasis

- Older person
- Heat has dried out tongue so it has no coat
- Cracks are from dehydration
- Point shows dryness.
- Some phlegm because of swelling
Foods for deficient heat - yin deficiency

- Asparagus
- Pears
- Okra
- Seaweed
- Wheat
- Rice
- Grapes
- Banana
- Tofu
- Green beans

Pear, asparagus and tofu salad
Heat can lead to Blood Stasis

- Either Excess or Deficient Heat can congeal the blood and allow it to stagnate, building up heat. It results in a purplish tongue, petacchie, enlarged sublingual veins and sometimes a stabbing pain.

Dicentra for blood stasis
A blue purple tongue body is stasis from cold.
Development of Blood Stasis
Tongue

Cold

| Pale tongue |
| Bluish purple |
| Blood stasis |

Heat

| Red tongue |
| Reddish purple |

Blood stasis
Etiology and Pathomechanisms of Blood Stasis

- **Knocks and Falls**
  - When qi stagnates, blood becomes static

- **Qi Stagnation**
  - Severeing of vessels
  - When qi stagnates, blood becomes static

- **Enduring Illness**
  - Enduring illness eventually affects blood

- **Qi Vacuity**
  - When qi is vacuous, it fails to command the blood
  - Cold congeals the blood

- **Blood Cold**
  - Heat consumes and decocts the blood

- **Blood Heat**
  - When there is stagnation, there is pain

- **Masses and Swellings**
  - Static blood forms concentrations and accumulations

- **Pain**
  - Static blood obstructs network vessels leading to extravasation of blood

- **Bleeding**
Blood stasis with deficient Heart Yin

- This tongue is small, dehydrated and shows a purple color which is representative of blood stagnation. Large heart crack and horizontal lines.
Blood Stagnation (Stasis)

Blood Stagnation is where the normal flow of Blood has become obstructed. Stagnant Blood can occur in the channels (usually due to trauma), or in the internal Zang Fu (Yin Yang) Organs, mainly in the Liver, Heart, Uterus, Intestines and Stomach. Heat in the Blood also eventually causes blood to stagnate/congeal, as does Internal Cold. If there is Blood Stasis there will be Blood Deficiency so both are typically treated.

**General Symptoms of Blood Stagnation**
- Stabbing fixed pain
- Dark complexion
- Purple lips and nails
- Dark blood and clots if there is bleeding

**Tongue**
- Red purple if there is Heat
- Blue purple if there is Cold
- Possible purple or red spots

**Pulse**
- Wiry or choppy pulse
Blood Stasis
Confirmatory Signs & Treatment
Yin deficiency leads to Yang deficiency

• If you burn out your yin, your yang will collapse: Chronic fatigue, lethargy, lack of drive, lower back pain, sexual impotence or infertility, and leaky jing gate conditions may result.
A pale tongue always indicates deficiency. Which type of deficiency will depend on other factors revealed on the tongue, as well as the presenting symptoms. A pale tongue indicates a deficiency of yang, qi or blood. If the tongue is pale and moist it indicates a deficiency of yang which is also sometimes called deficiency cold as it causes cold symptoms in the body. This is rare.
Yang deficient cold

- Yang and blood deficiency from severe nutritional impairment, as seen by scallops and lateral cracks on tongue, as well as history.
- Her Yin is substantially burned out. The crack on the tongue indicates a constitutional propensity for heart problems and is quite deep because the yin deficiency was long term.
Feels easily cold especially in the limbs. Tends to wear more clothes, desire for hot drinks, loose stools, exhaustion, lack of motivation, depression, sensitivity to the cold, a slow and weak pulse

Yang deficiency needs to be treated with foods which are warm and tonifying in nature. The tongue is pale and may be scalloped in appearance.
Yang deficient

This particular tongue can indicate yang or blood deficiency, but in a man is more likely to indicate yang deficiency unless there has been trauma. The tongue alone won’t tell what organ is affected. Since the tongue body is also swollen, which usually indicates Phlegm, and there are transverse Spleen cracks on the tongue, it is more likely to be Spleen-Yang deficiency. The central crack correlates with the Heart and shows a constitutional propensity to problems.
Foods for Yang Deficiency

- Lamb
- Lobster
- Steak
- Walnuts
- Cinnamon, ginger
- Pepper
- Basil, oregano and rosemary
- Garlic, onions
- Soups, which are warm and digestible
Blood Deficiency

• Blood is a yin substance, and blood deficiency can be an earlier step to yin deficiency. However it is a cooler condition, not yet including deficient heat
• It can also be caused by trauma
• It can be caused by diet
• It is not identical to anemia but can include anemia
Blood Deficiency

- Symptoms include: pain with dizziness; heart palpitations; fatigue; pale complexion; pale lips, a pale tongue body with a thin-white tongue coating; and a thin-weak pulse. Many blood deficient people lack a thin tongue.
• The classic texts indicate that a blood xu person has a pale thin tongue.
• Giovanni Macciocia says in his database only 1.4% of patients have thin tongues, but far more are blood deficient.
• Blood deficiency is commonly paired with dampness and phlegm because the qi is not circulating well.
Foods for Blood Deficiency

- Red meat
- Liver
- Goji Berries
- Beets
- Green superfoods (spirulina, chlorella, wheatgrass, etc.)
- Dark green and dark red foods

Spicy Liver and Greens Stirfry
Four Levels Patterns

• Wei Level
• Qi Level
• Nutritive Ying Level
• Blood Level

• Slightly red front or edges. Thin white TC
• Red or normal body. Yellow TC
• No coating
• No coating
## Six Stages Tongue Signs

<table>
<thead>
<tr>
<th>Stage</th>
<th>Body</th>
<th>Fur</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tai Yang</td>
<td>Unchanged</td>
<td>Thin, white, possibly around center or front</td>
</tr>
<tr>
<td>Yangming</td>
<td>Red</td>
<td>Yellow, thick and dry</td>
</tr>
<tr>
<td>Shao yang</td>
<td>Unchanged</td>
<td>White and slippery on one side only or white and gray or white and black</td>
</tr>
</tbody>
</table>
Summary of Tongue Signs in Externally Contracted Cold or Heat

- Six Stages
- For Levels
- Three Burners
### Six Stages Tongue Signs

<table>
<thead>
<tr>
<th>Stage</th>
<th>Body</th>
<th>Fur</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tai Yin</td>
<td>Pale</td>
<td>White</td>
</tr>
<tr>
<td>Shao Yin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Cold</td>
<td>Pale</td>
<td>White</td>
</tr>
<tr>
<td>– Heat</td>
<td>Red</td>
<td>No coat</td>
</tr>
<tr>
<td>Jue Yin</td>
<td>Unchanged</td>
<td>White and yellow because of both heat and cold signs</td>
</tr>
</tbody>
</table>
# Identification by Three Burners: Upper Burner

<table>
<thead>
<tr>
<th>Condition</th>
<th>Description</th>
<th>Color</th>
<th>Other Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wind heat in the lungs</td>
<td>Slightly red on front or edges</td>
<td>Yellow</td>
<td></td>
</tr>
<tr>
<td>Lung Heat</td>
<td>Red</td>
<td>Yellow</td>
<td></td>
</tr>
<tr>
<td>Pericardium Heat</td>
<td>Deep red, red points</td>
<td>No coat</td>
<td></td>
</tr>
</tbody>
</table>
Identification by Three Burners: Middle Burner

- Heat in Yangming
- Liver
- Scarlet red
- Scarlet red
- Scarlet red
- Yellow dry
- Sticky yellow
Identification by Three Burners: Lower Burner

- Kidneys
  - Deep red
  - No coating

- Liver
  - Deep red
  - No coating
Western Conditions of the Tongue and Oral Cavity
Normal Circumvallate Papillae (taste buds) and thick damp tongue coat
White Hairy Tongue

- Thick white tongue coat indicates dampness
- Peeled red sides indicates deficient heat in Liver or Gallbladder
- May have oral candida
Black hairy tongue

- Hot or cold?
- State of yin?
- Look at the lips
• Black Hairy Tongue is an elongation of the taste buds combined caused by poor oral hygiene, fungus, chronic oral irritation or smoking. This patient was treated with radiation therapy cancer and has chronic oral inflammation. Treatment involves good oral hygiene, brushing of the tongue, mouth rinses and sometimes the trimming of the elongated papilla. Same patient after two months of oral hygiene.
Black hairy tongue due to GERD before and after reflux treatment, with antifungal meds and tongue brushing.
Black tongue from antibiotic use

- Stagnation indicated by dark color
- Black tongue can be fungal reaction to cold antibiotics
- Wet tongue- damp
- Spleen and Stomach show damage
Dampness with Deficient Heat

Extreme mold disease, lupus, and celiac.
Note cracks in the tongue due to yin deficiency
Heat in heart at the tip, but yin is burning out;
Blackness due to extreme damp
Ankyloglossia (Tongue tie)

Is this heart yin?
Pale red tongue, thin white coat,
petacchie not red,
Ankloglossia

Mild red color, thin white coat, no sublingual veins, lots of fillings so perhaps poor diet and mercury issues. Do you think the attached frenulum means anything?
• Macroglossia can be related to primary and myeloma-related amyloidosis. Macroglossia is also a clinical feature in congenital hypothyroidism, and immuno-deficiency
• Severe yin deficiency
• Not much heat showing
Thrush (candida)

- What is this on the upper palate?
- How would you describe it in TCM terms?
Fissured or scrotal tongue

- Normal color, thin white coat, perhaps the central crack is yin deficiency, perhaps not. Benign condition often seen with Down's syndrome
Fissured or scrotal tongue with geographic tongue coat
Geographic tongue

- Geographicness may have no particular meaning but you still can see a lot
- Red tongue body
- Wet, especially on sides
- Possible phlegm dampness in Spleen and Lower Jiao
Geographic Tongue (western explanation)

Other Names:
• Patches on the tongue; Patchy tongue; Benign migratory glossitis

Causes
• The specific cause of geographic tongue is unknown, although vitamin B deficiency may be involved. Other causes may include irritation from hot or spicy foods, or alcohol. The condition appears to be less common in those who smoke.
• The pattern on the surface of the tongue may change very rapidly. This pattern changes occur when there is a loss of the tiny finger-like projections, called papillae, on the tongue's surface. This makes areas of the tongue flat. These areas are said to be "denuded." Denuded areas may persist for more than a month.
• Geographic tongue
• Damp
• Heat?
• Locus of peeling may or may not be important
- Geographic tongue
- Heat
- Swollen
- Dampness
- Digestive issues
- Possibly Lung problems
• Heat
• Tip eroded
• Depression on left indicates qi stagnation
• Moderate color and tongue fur with slight geographic distribution
• Wind most likely since deviated
• Scallops
• Probably some heat-hard to tell in a photo
• Central crack
• Relatively thick tongue coat
• Geographic distribution of fur
- Red tongue body
- Petacchie, raised and red
- Dampness
- Liver/gallbladder red
- Liver fire
• Pale tongue, lips and complexion indicate cold
• Yang and blood deficiency
• Scallops and lateral cracks on tongue
• Yin is substantially burned out.
• The crack on the tongue goes from Kidney to Heart indicating heart problems.
• Median rhomboid fungal glossitis
• Damp heat especially in the lower jiao- note yellow tongue fur
• Liver/gallbladder areas red
• Atrophic Glossitis, could be due to B vitamin deficiency or bacterial or viral
• Mirror tongue
• Swollen
• No tongue coat
• Digestive problems
• Qi stagnation
• Spine may be irregular
Deficient heat in liver and heart

- Tongue is overall thin, dehydrated and skin tends to be pale, so not excess heat.
Tongue hyperkeratosis

- Dampness and heat
- Cottage cheese coating
- Liver, Heart and Gallbladder are red
- Deep crack to tip shows Heart heat
- Keratosis may be from friction of tongue thrusting against teeth
- Mechanical problem in WM may show shen disturbance in CM
Viral Stomatitis/ Phlegm damp

- Patient had outbreak one day after a chemical exposure that hurt wei qi
- History of oral herpes, with lesions probably due to that virus
- Phlegm damp lesion
- Little heat
- Peeled sides of tongue in Liver/ Gallbladder area
- Pale body with red tip
- What is the TCM pathogen?
Tongue diagnosis can help identify oral cancers, so be aware

- Tongue cancer in a smoker
- People with poor oral health may not have dentists monitoring tongue growths - refer to an ENT
Oral carcinoma
Squamous cell lip cancer

- Patient may think it is just a herpetic lesion
• Black pigmentation, satellite lesions and red erythema characteristic of malignant melanoma
Lingual Hemangioma

- Usually a benign vascular tumor rich with blood vessels
- May ulcerate
- Thick white tongue fur indicates dampness
- Blood stasis indicated by purple color and phlegm by swelling
- Cavernous form difficult to embolize or remove
Lingual Hemangioma

- Small and noncavernous, on six year old child
- Can be removed
- Tongue shows fire toxins with red papillae
- Redness on sides and tip
- Wet tongue
Tongue Papilloma

- Benign epithelial tumor growing outward, but which in the wrong location can cause fatal obstruction of airways
- May be due to HPV 6 or 11
- What would you treat it as?
Tongue squamous cell cancer
Fungating tumor of the oral mucosa after years of chewing tobacco
Nicotine Stomatitis
Radiation caused caries
Torus palatinus

- This is a hard bony growth in the center of the roof of the mouth (palate).
- Not a tumor or neoplasm but a benign bony growth called an exostosis.
- This growth commonly occurs in females over the age of 30 and rarely needs treatment.
Abrasion from Dentures and Piercings can cause problems

- Inflammatory hyperplasia from dentures is a kind of stagnant heat from injury
• Endocarditis from tongue stud, had red tip indication on the tongue, but infection went to the Heart organ.
• Note red tip emanating from the stud.
Tongue swelling from piercing
Resources

• You can Google-Image tongue pictures from dental and ENT sites to get pictures of various conditions. Try to look at them in TCM terms.

• Otolaryngology Houston has good pictures: www.ghorayeb.com/TongueHemangioma.html

• ENT America has some: www.entusa.com/oral_photos.htm

• There is a Chinese tongue diagnosis selector with explanation at: http://beyondwellbeing.com/herbs/tongue-diagnosis.shtml

• Giovanni Macciocia’s web site has a gallery.
Recommended Books


• Giovanni Macciocia *Diagnosis in Chinese Medicine*. Eastland Press 2004