



## Tongue diagnosis for analyzing health and diseases

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### Abstract:

In Asian medical science, clinical examination like the tongue examination of a patient is of utmost importance in the diagnosis of a disease. Though the methods of examination of patients are slightly different in various countries/ systems, a few of the basics are somewhat similar. In the Ayurved system there are three main examination methods i.e. Darshan, Sparshan & Prashna. In the 8 fold examination of certain body parts, Pulse, Urine, Faecal matter, Tongue, Sound, Palpation, Eyes, and built. Tongue examination is also part of this 8 fold method. In this review article comparative review on tongue diagnosis in Ayurved, Traditional Chinese Medicine, Japanese Kampō, Korean Medicine, Mongolian Medicine, Tibetan Medicine & siddha System of medicine have been studied. After comparative study, it has been found that in Asian systems of medicine, Tongue examination is the most common attribute to look for in a self-tongue diagnosis. This examination can be a part of daily routine by peeking at the tongue each morning upon awakening. It can be concluded as Use of this examination method along with other methods like interrogation, pulse reading is very helpful in the clinical diagnosis of a disease.

### Introduction:

*"The Tongue can paint what the eye can't see"* -  
Proverb

In Asian medical science, clinical examination like the tongue examination of a patient is of utmost importance in the diagnosis of a disease. Though the methods of examination of patients are slightly different in various countries/ systems, a few of the basics are somewhat similar.

In the Ayurved system there are three main examination methods which are described as follows:

- *Darshan*(Inspection),
- *Sparshan* (Palpation) and
- *Prashna* (Interrogation) is the 8 fold examination of certain body parts (for all patients). These are

Pulse, Urine, Faecal matter, Tongue, Sound, Palpation, Eyes, and built.

- In TCM, the diagnostic process is explained in four areas - the four examinations which are as follows:
- Looking: complexion, eyes, tongue, nails, hair, gait, stature and affect.
- Hearing and Smelling: sound of voice and breath, odour of breath, skin.
- Interrogation/asking.
- Touching: palpation and pulse reading.

### Traditional Chinese Medicine:

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 harmony or disharmony.

The tongue has a special relationship with the Heart, in that the Heart opens to the tongue. The tongue is said to be an "offshoot" of the Heart, or "flowers" into the Heart.

The normal tongue in Traditional Chinese Medicine has a light red or pinkish body with a thin white coating.

Stomach affects tongue coating:

1. Tongue coating or "fur" is formed by some "turbid dampness" that is a by-product of the stomach's rotting and ripening activity. This dirty dampness rises up to the tongue to form the coating.

2. Thin white coating on tongue = Stomach is functioning properly. No coating or peeled coating = Stomach's digesting function is impaired and Stomach *Qi* and perhaps *Yin* severely weakened.

If Stomach fluids are abundant, digestion will be good, sense of taste will be normal. Deficient stomach fluids (Deficient Stomach *Yin*): poor digestion, thirst, dry, cracked tongue.

External causes / Six Excesses –<sup>12</sup>

The Six Excesses (*pinyin*: *liùyín*, sometimes also translated as "Pathogenic Factors", or "Six Pernicious Influences".<sup>3</sup> It also known with the alternative term of *liùxié*, – "Six Evils" or "Six Devils") are allegorical terms used to describe disharmony patterns displaying certain typical symptoms.<sup>4</sup> These symptoms resemble the effects of six climatic factors.<sup>5</sup> The Six Excesses and their characteristic clinical signs are:<sup>6</sup>

1. Wind (*pinyin*: *fēng*): rapid onset of symptoms, wandering location of symptoms, itching, nasal congestion, "floating" pulse; tremor, paralysis, convulsions.

2. Cold (*pinyin*: *hán*): cold sensations, aversion to cold, relief of symptoms by warmth, watery/clear excreta, severe pain, abdominal pain, contracture/hyper tonicity of muscles, (slimy) white tongue fur, deep/hidden/string-like" pulse, or slow pulse.<sup>7</sup>

3. Fire/Heat (*pinyin*: *huǒ*): aversion to heat, high fever, thirst, concentrated urine, red face, red tongue, yellow tongue fur, rapid pulse.

4. Dampness (*pinyin*: *shī*): sensation of heaviness, sensation of fullness, symptoms of Spleen dysfunction, greasy tongue fur, "slippery" pulse.<sup>8</sup>

5. Dryness (*pinyin*: *zào*): dry-cough, dry mouth- throat-lips -skin, nosebleeds, stools.

In detail, the Eight Principles refer to the following:

- Exterior (*pinyin*) - disease manifesting in the superficial layers of the body – skin, hair, flesh, and meridians, characterized by aversion to cold and/or wind, headache, muscle ache, mild fever, a "floating" pulse, and a normal tongue appearance.<sup>9</sup>

- Interior (*pinyin*) - disease manifestation in the *zàng-fǔ*, or (in a wider sense) to any disease that cannot be counted as exterior, no generalized characteristic symptoms of interior patterns, since they'll be determined by the affected *zàng* or *fǔ* entity<sup>10</sup>.

- Cold (*pinyin*: *hán*) - is generally characterized by aversion to cold, absence of thirst, and a white tongue fur. More detailed characterization depends on whether cold is coupled with vacuity or repletion.

- Heat (*pinyin*: *rè*) - is characterized by absence of aversion to cold, a red and painful throat, a dry tongue fur and a rapid and floating pulse, if it falls together with an exterior pattern. In all other cases, symptoms depend on whether heat is coupled with vacuity or repletion.

Method of Clinical Examination:

- Degenerative disease: Pale tongue, white coat



- Inflammatory disease: Red tongue, yellow coat

Tongue features:

- Tongue Body Color<sup>11</sup>
- Tongue Body Shape
- Tongue Body Features
- Tongue Body Moisture
- Tongue Coating
- Tongue Coat Thickness
- Tongue Body Cracks
- Tongue Coat Root

## Japanese Kampō:

In *Kampō*, a close observation of the tongue is an important part of evaluating the health of the patient. The tongue often presents strong visual indicators of a person's overall harmony or disharmony. The practitioner will then evaluate the size, shape, color, and coating of the tongue.<sup>12</sup>

Tongue color and coating provide important information, such as signs of blood or qi vacuity, heat, or blood stasis. Another important part of the tongue evaluation is the observation of sublingual veins, found on the bottom side of the tongue.

- Tongue body colour

Pale tongue: tongue less red than normal, indicating qi and blood deficiency or presence of deficiency-cold.

Pale red tongue: tongue of normal color.

Red tongue: tongue redder than normal, indicating presence of heat.

Blue tongue: tongue of bluish color, indicating congealing cold and static blood.

Purple tongue: tongue purple in color, indicating stagnant circulation of qi and blood.

Bluish purple tongue: cyanotic tongue, indicating blood stasis or heat toxin in the nutrient-blood.

Crimson tongue: tongue deep red in color, indicating intense heat.

- Form of the tongue:

Enlarged tongue: tongue that is larger than normal, pale in color and delicate, usually bearing dental indentations on the margin.

Swollen tongue: large and bulging tongue that makes the mouth full or difficult to open.

Thin tongue: tongue thinner than normal.

Spotted tongue: a tongue with red, white or black spots as well as thorn-like protrusions on its surface.

Prickly tongue: tongue with thorn-like protrusions on its surface.

Teeth-marked tongue: tongue with dental indentations on its margin.

Fissured tongue: tongue with fissures on its surface.

Sublingual collateral vessels: the vein under the tongue on either side of the frenulum.

- Tongue fur, Fur colour, Texture of fur

White fur: tongue coating white in color.

White sandy fur: white dry and thick tongue coating like a layer of sand.

Yellow fur: tongue coating yellow in color.

Black fur: tongue coating black in color, indicating either excessive cold or extreme heat in the interior.

## Korean Medicine:

- KM clinicians use the Pattern Identification (PI) system to diagnose the cause, nature, and location of the illness as well as the patient's physical condition and the patient's treatment. Therefore, the PI system plays an important role in KM. The PI system is a synthetic and analytical process that analyzes information obtained from four examinations- visual inspection, listening and smelling, inquiry, and pulse diagnosis. To successfully perform PI, an objective and precise process using the four examinations is essential.



And the analysis of the *Kappa* values –such as “Poor, Moderate or Good *Kappa* value.”

- Visual inspection means observing the patient’s mental state, facial expression, complexion, and physical condition as well as the condition of the tongue. (dry, fur and teeth marked tongue) have poor *Kappa* values. However, the other items had moderate-to-good values.
- Tongue diagnosis is the inspection of the size, shape, color, and moisture of the tongue proper and its coating. Several studies have emphasized the inter-observer reliability among clinicians regarding tongue diagnosis.
- Inspection, including tongue diagnosis, has unavoidable limitations because the clinical skills of observation and diagnosis depend on the clinician’s experience and knowledge, and environmental factors can influence whether the clinician can obtain diagnostic results from the patient’s body.

#### Mongolian Medicine:

- To diagnose a disease the traditional physician reads the pulse, examines the tongue, checks the urine by smell, colour and taste and interrogates the patient.
- The heart-vital part of the body connects to the exterior through the tongue.

#### Tibetan Medicine:

“Root *Tantra*” - The First *Tantra* amongst Four *Tantras* (*Gyushi*, *rGyu-bzhi*) contains very briefly an explanation of all diseases. It is like a seed. A general outline of the principles of Tibetan Medicine, it discusses the humors in the body and their imbalances and their link to illness. In Tibetan medicine diagnosis is divided into three sections –

1. Visual observation/ urine analysis
2. Touch/ pulse palpation
3. Questioning/ interrogation

Visual Observation methods - It is divided into two: the first is observation of the tongue and the other is urine analysis. Each of the three humors has a different effect on the patient's tongue and urine, which can be visually detected by the physician.

#### Tongue Diagnosis:

The table below lists symptoms of the three *Nyes-pas* that are found through tongue diagnosis.

<i>Nyes – pas</i>	Tongue
<i>Loong</i>	Reddish, coarse, dry texture
<i>mKhris-pa</i>	Thick yellowish coating
<i>Bad-kan</i>	Pale, smooth and whitish coating, moist texture

#### Siddha Medicine:

- In diagnosis, examination of eight items is required which is commonly known as “*Ennvakaithtervu*”. These are:
- *Na* (tongue): black in *Vaatham*, yellow or red in *Pitham*, white in *Karpam*, ulcerated in anaemia.

#### Ayurved:

In Ayurveda, making an accurate diagnosis of a patient's condition is very necessary before beginning any kind of treatment for them. An examination is necessary in order to arrive at an accurate diagnosis for these conditions. A broad variety of Rog Rogi Pariksha preparations are described in Ayurveda writings. Some examples of these are the Trividha Pariksha, Saptvidha Pariksha, Ashtavidha Pariksha, and Dashavidha Pariksha, amongst others.<sup>13</sup>



The tongue according to Ayurved is a strong diagnostic tool for looking at one's systemic health. It is a very accurate view into the inner health of an individual. Tongue analysis can be used complementarily with pulse, nail and facial diagnosis in order to really see what is going on internally and detect issues that may not have manifested themselves otherwise.<sup>14</sup>

It is important to regularly check one's tongue in order to recognize when the body is accumulating toxins, when foods are causing negative reactions to the system or when other indications of disorder may arise.<sup>15</sup>

The ancient art of tongue diagnosis also describes typically characteristic patterns that can reveal the functional status of the respective internal organs merely by observing the surface of the tongue. The tongue is the mirror of the viscera.

A discoloration and /or sensitivity of a particular area of the tongue indicate a disorder in the organ corresponding to that area. A whitish tongue indicates a *Kapha* derangement and mucus accumulation; a red or yellow-green tongue indicates a *pitta* derangement; and a black to brown coloration indicates a *Vata* derangement. A dehydrated tongue is symptomatic of a decrease in the *rasadhatu* (plasma), while a pale tongue indicates a decrease in the *raktadhatu* (red blood cells).

Areas covered with tongue diagnosis:

- Organ health
- *Vata*, *Pitta* or *Kapha* imbalances
- Presence of toxins and where they are accumulating

Basically each area of the tongue is related to a certain organ in the body. The front of the tongue is related to the lungs and heart; the middle with the liver, spleen and stomach; and the back with the kidneys, small intestine and the colon. The very tip of the tongue

correlates with the thyroid; and vertically, smack in the middle of the tongue reveals the spine.

**Tongue Coating and Location:**

If the tongue has any sort of coating on it, this is a very clear indication of toxic build-up in the system and poor overall digestion.

**Tongue Coating and Color:**

One can look at the color of the coating which will reveal the *doshic* imbalance that is involved. If the coating is grey, black or brown, one can assume *Vata* toxins; if the coating is orange, reddish, yellow or green, this indicates *Pitta* toxins; and finally if there is a thick, whitish coating one can think *Kapha* toxins. This can be quite helpful as each toxin should be treated differently, depending on which *dosha* is involved.

## Conclusion:

- Tongue examination is the most common attribute to look for in a self-tongue diagnosis.
- This examination can be a part of daily routine by peeking at the tongue each morning upon awakening.
- The tongue may change day to day depending on food choices, emotions and overall health.
- Use of this examination method along with other methods like interrogation, pulse reading is very helpful in the clinical diagnosis of a disease.

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