

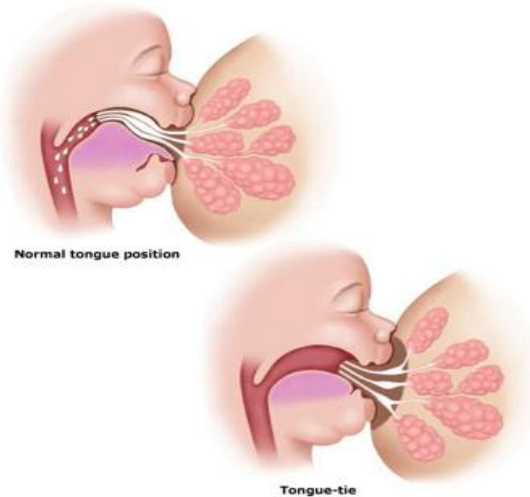
# Tongue

Ankyloglossia  
Geographic  
Black hairy tongue

By Victoria Hsu  
Histology & Embryology  
DEN 1114 Section D219

# What is Ankyloglossia ?

Ankyloglossia, also known as **tongue-tie**, is a congenital oral anomaly that may decrease mobility of the tongue tip and is caused by an unusually short, thick lingual frenulum.



The condition may first be noted by parents within a few weeks of birth, particularly as it interferes with breastfeeding.

# Symptoms

Signs and symptoms of ankyloglossia include:

- Difficulty lifting the tongue to the upper teeth or moving the tongue from side to side.
- Trouble sticking out the tongue past the lower front teeth.
- A tongue that appears notched or heart shaped when stuck out.



# Causes

- Tongue- tie (ankyloglossia) is a condition present at birth that restricts the tongue's range of motion.
- Typically, the lingual frenulum separates before birth, allowing the tongue free range of motion.
- With tongue- tie, the lingual frenulum remains attached to the bottom of the tongue
- It is largely unknown why this happens, although some cases of tongue-tie have been associated with certain genetic factors.

\*Risk factors - although tongue-tie can affect anyone, it's more common in boys than girls. Tongue-tie sometimes runs in families

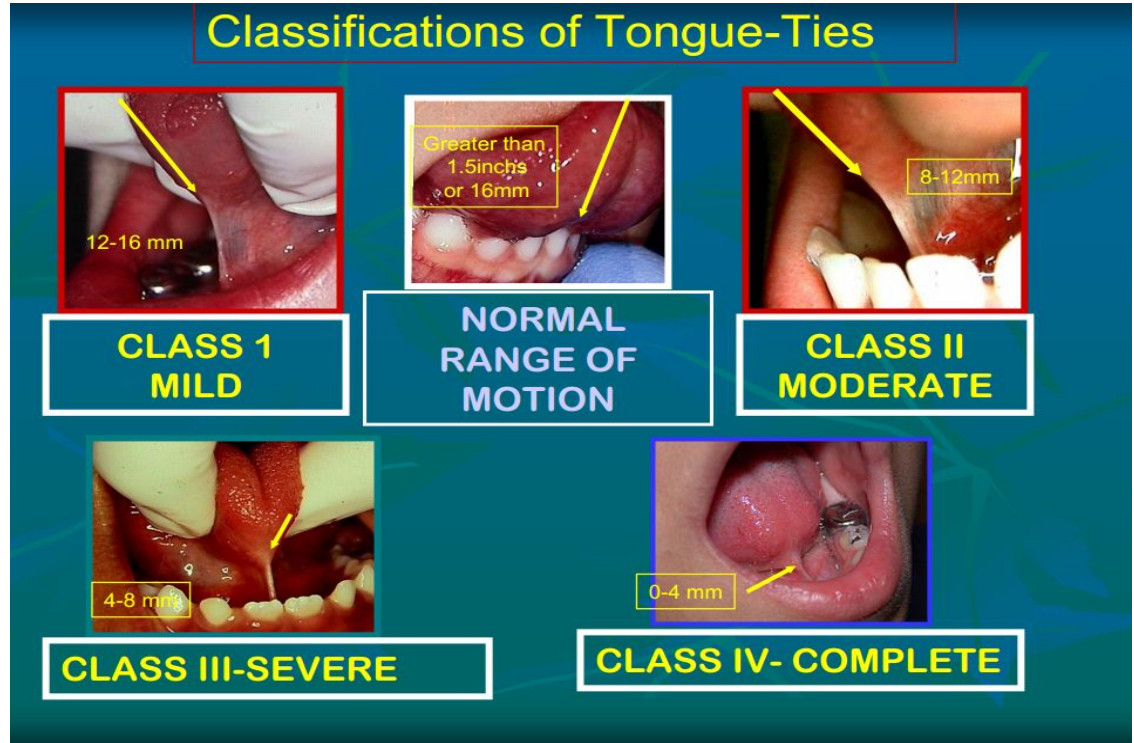
# Complications of Ankyloglossia

Some problems caused by tongue-tie in an infant include:

- Impaired speech development. (can interfere with the ability to make certain sounds, such as “t,” “d,” “z,” “s,” “the,” “r” and “i.”)
- Deformity of the lower front teeth or the incisors
- Poor oral hygiene
  - For an older child or adult, tongue-tie can make it difficult to sweep food debris from the teeth. This can contribute to tooth decay and inflammation of the gums (gingivitis).
- Breastfeeding problems
  - Due to incorrect latching of the baby’s mouth onto the breast causing inadequate milk supply to the baby’s mouth and pain in the mother’s nipple.
- Inability to lick, or play a wind instrument

# Diagnosis

- The shape, size and length of the frenulum and the tongue's range of movement and function is usually examined on a first visit to the dentist.
- In order children, teeth positioning, speech, and articulation also need to be examined.



Class I: Milde Ankyloglossia (12-16mm)

Class II: Moderate Ankyloglossia (8-11mm)

Class III: Sever Ankyloglossia (3-7mm)

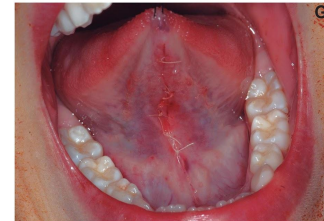
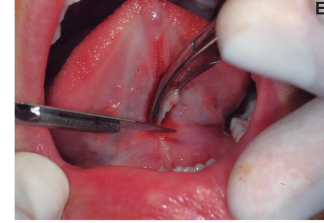
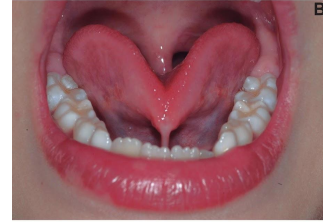
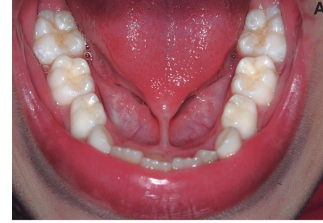
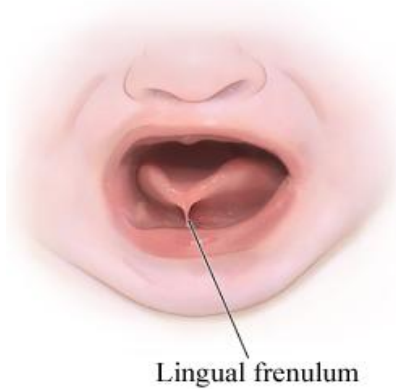
Class IV: Complete Ankyloglossia (> 3mm)

# Treatments

- Treatment for tongue-tie is controversial.
  - Some doctors and lactation consultants recommend correcting it right away, even before a newborn is discharged from the hospital.
  - A wait-and-watch approach may be undertaken by the healthcare provider for mild cases.
  - The lingual frenulum may loosen over time, resolving tongue-tie. In other cases, tongue-tie persists without causing problems. In some cases, consultation with a lactation consultant can assist with breastfeeding, and speech therapy with a speech-language pathologist may help improve speech sounds.
- Surgical treatment of tongue-tie may be needed for infants, children or adults if tongue-tie causes problems. Surgical procedures include :
  - **Frenotomy**
  - **Frenuloplasty**

# Lingual Frenotomy

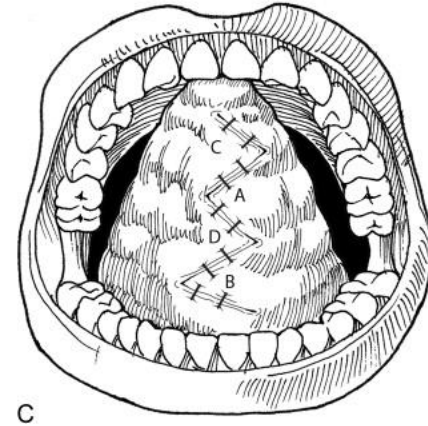
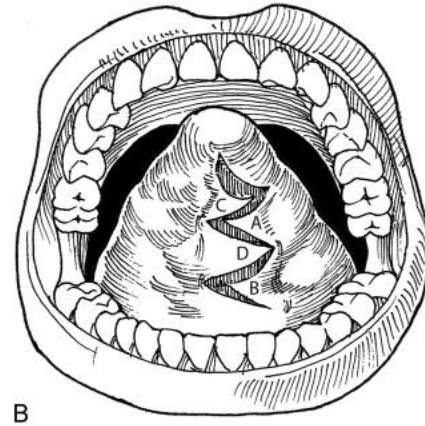
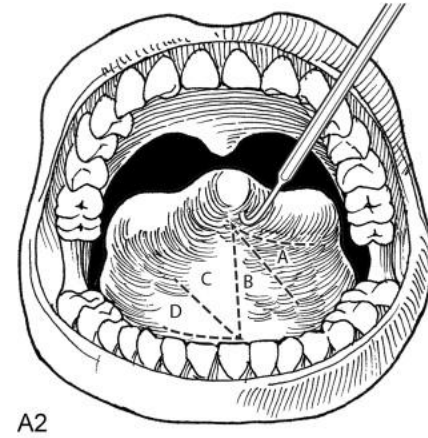
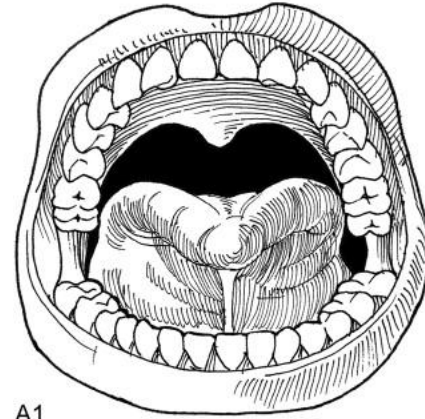
- A simple surgical procedure can be done with or without anesthesia in the hospital nursery or doctor's office.
- The doctor examines the lingual frenulum and then uses sterile scissors to snip the frenulum free.
- The procedure is quick and discomfort is minimal
- After the procedure, a baby can breastfeed immediately





# Lingual Frenuloplasty

- A more extensive procedure known as a frenuloplasty might be recommended if additional repair is needed or the lingual frenulum is too thick for a Frenotomy.
- Lingual frenuloplasty differs from frenotomy in that the frenulum is not completely removed, but only altered. Snip the frenulum just enough to loosen it and increase the mobility of the tongue.





# Geographic Tongue

- Is an inflammatory condition of the mucous of the tongue.
- A map-like appearance on the upper surface and sides of the tongue.
- Usually on the dorsal surface.
- Affecting about 1-3% of people
- Can show up in any age.
- More common in women than in men.

# Signs and symptoms may include:

- Smooth, red, irregularly shaped patches (lesions) on the top or side of your tongue
- Frequent changes in the location, size and shape of lesions
- Discomfort, pain or burning sensation in some cases, most often related to eating spicy or acidic food
- Many people with geographic tongue have no symptom
- Geographic tongue may go undetected for months or years. Often a dentist or other healthcare provider discovers the condition during an oral exam.

# Causes

- The cause of geographic tongue is unknown, and there is no way to prevent the condition.
- Geographic tongue has been seen more frequently in people with psoriasis and in those with fissured tongue.
  - In fissured tongue, cracks and grooves appear on the tops and sides of the Tongue.
  - Some people with Geographic tongue have a family history of the disorder, so inherited genetic factors may increase risk



# Complications

- Geographic tongue is a benign condition.
- It doesn't pose a threat to your health, cause long-term complications or increase the risk of major health problems.
- However, anxiety about the condition is common
  - The appearance of the tongue may be embarrassing, depending on how visible the lesions are.
  - A person may worry that there is something more seriously wrong

# Treatments

- Left untreated, most cases of geographic tongue clear up on their own with no medical intervention.
- Treatments for geographic tongue include:
  - Anesthetic and antihistamine mouthwash
  - Oral pain relievers
  - Corticosteroid rinses
  - Vitamin B and zinc supplements in some cases

# Do you have a GEOGRAPHIC TONGUE?

Manage the symptoms with simple home remedies

## DIETARY CHOICES

- Avoid eating hot, spicy, acidic or salty foods.
- Avoid any kind of tobacco products.
- Avoid heavily flavored candy or other food products.
- Avoid acidic fruits and vegetables.
- Limit consumption of highly sugary items.



Vegetable  
Glycerin



Hydrogen  
Peroxide



Mint



## FLUID INTAKE

- Drink an ample amount of water throughout the day. You can also suck on small pieces of ice.
- Drink chilled herbal teas like green or chamomile tea.
- Drink smoothies, fruit juice or vegetable juice.

Top10  
Home Remedies



Apple  
Cider Vinegar



Aloe  
Vera

To explore more, visit

Top10  
Home Remedies

[www.Top10HomeRemedies.com](http://www.Top10HomeRemedies.com)



Zinc



# Black Hairy Tongue

- A temporary, harmless oral condition
- Gives the tongue a dark, furry appearance
- A buildup of dead skin cell on the papillae collecting debris like bacteria and food
- It's easily remedied by practicing good oral health

# Symptoms

- Black discoloration of the tongue, although the color may be brown, tan, green, yellow or white
- A hairy or furry appearance of the tongue
- Altered taste or metallic taste in your mouth
- Bad breath (halitosis)
- Gagging or tickling sensation, if the overgrowth of the papillae is excessive



# Causes

- Although the cause of black tongue can't always be determined, possible causes or contributing factors include:
  - Changes in the normal bacteria or yeast content of the mouth after antibiotic use
  - Poor oral hygiene
  - Dry mouth (xerostomia)
  - Excessive use of alcohol
  - Drinking excessive amounts of coffee or black tea
  - Smoking, chewing, or dipping tobacco,



# Common treatments

- Have a good oral hygiene.
  - Properly brushing, flossing, and rinsing your mouth.
- Scrape your tongue
  - Use specialized tongue scrapers
- Discontinue the responsible medications
- Stop bad habits
- Consider what you're eating and drinking

# Aggressive treatments

- Prescription antifungal medicines
- Over the counter antiseptic mouthwash, such as Listerine or Orajel
- Surgical treatment to trim FB (filiform papillae)

# Dental Hygienist's Role

- Most dental diseases are preventable so the role of the dental hygienists is very important.
- The main role of the dental hygienists is focused on oral disease prevention and oral health promotion.
- Dental hygienists can help identify the conditions patients may not be aware of, and educate the patients on their conditions and the importance of maintaining oral hygiene.
  - Advice on dietary habits and lifestyles. Ex: not smoking to prevent black hairy tongue.
  - Educate the patients on how to brush their teeth and scrape their tongues according to their needs.

# Resources

[Mayo Clinic - Ankyloglossia](#)

[Mayo Clinic - Geographic Tongue](#)

[Mayo Clinic - Black Hairy Tongue](#)

[Medical News Today](#)

[Lingual Frenectomy versus Lingual Frenuloplasty](#)