

Plastic and Maxillofacial Surgery

Cleft palate

Cleft palate

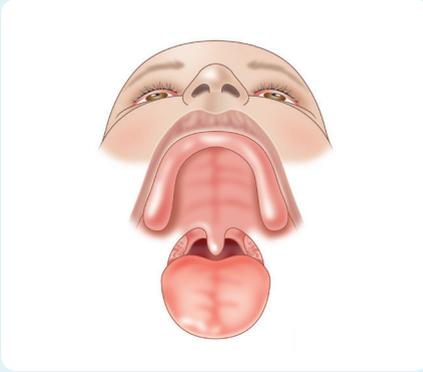
Clefts of the palate can vary in appearance and severity. The palate is made up of two main parts — a bony component called the hard palate and a muscular component called the soft palate. There can be a cleft of the soft palate alone, or a cleft of both the soft and hard palate.

Usually the split in the palate is clearly visible. However sometimes the cleft is under the mucous membrane of the mouth — we call this a submucous cleft palate. This type of cleft is often difficult to detect and may not be suspected until speech begins to develop. A bifid (split) uvula is often the only sign of this type of cleft palate.

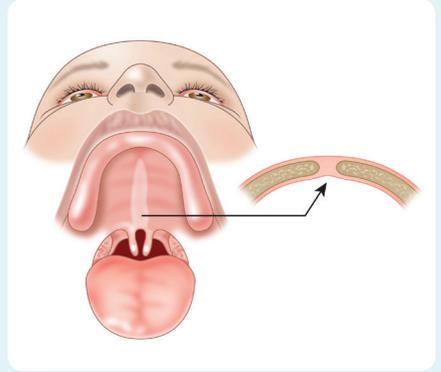
A small split in the uvula can occur without a cleft palate and may be present without any other problems. This is the most minor form of cleft palate, usually requiring no treatment.

Cleft palate

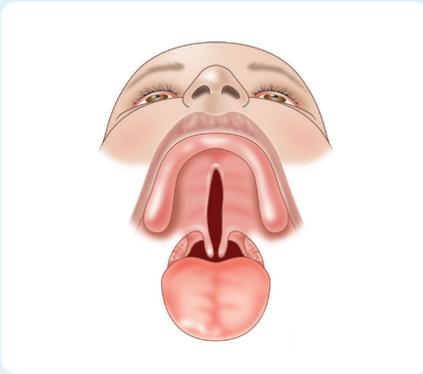




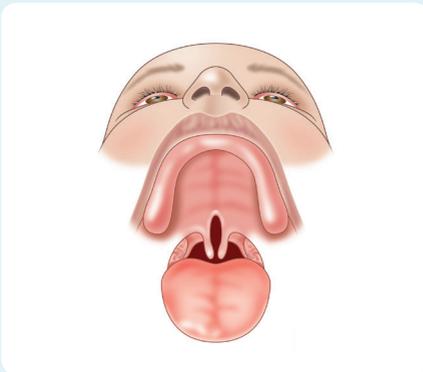
Normal palate



Submucous cleft palate



Cleft hard and soft palate



Cleft soft palate

How will a cleft affect my child?

Your child may be affected in a number of ways by their cleft. This will generally be influenced by the severity of the cleft.

When there is a cleft of the palate, we need to monitor a number of important areas: feeding, speech, hearing and teeth.

Feeding

In babies, the palate is important in generating suction when feeding. Babies with an unrepaired cleft palate will typically have difficulties creating enough suction to get sufficient milk out of a breast or teat. This makes feeding a long and tiring process and the baby may not get enough milk for adequate growth.



Various special bottles and teats

Speech

The palate is also very important in speech. In the closed position the palate usually shuts off tightly against the back and sides of the throat to make a seal which stops air from entering the nose. This is very important for a large number of consonants (p, b, t, d, k, g, f, v, s, z, sh, ch) and for the tone of speech. If the palate does not do its job, air escapes into the nose and may prevent development of consonants as well as cause an excessively nasal sounding voice. Some children also develop a range of sounds not usually heard in their native language. This makes them difficult to understand and can be frustrating for the child. Speech therapy is usually helpful in eliminating these sounds and developing the sounds found in the child's native language.

Hearing

Children with a cleft palate are prone to hearing difficulties. Hearing problems associated with cleft palate are usually a result of fluid in the middle ear. Any baby with a cleft palate needs to have their hearing monitored closely — a hearing assessment should generally be arranged for when the baby is around 4 weeks old, and repeated again at around 12 weeks of age. After the second hearing test, a review appointment with an ear, nose and throat (ENT) surgeon is required. At this time a decision will be made regarding the need for small tubes (grommets) to be inserted into the ear drums to allow drainage of fluid from the middle ear.

This can usually be done at the same time as the palate is repaired. Tubes usually stay in the ear drums for around 6–9 months. Some children will need more tubes if hearing problems continue. Annual hearing tests are recommended until at least 5 years of age for children with a history of cleft palate.

Teeth

It is important that your child's teeth are looked after carefully. Your child may want to have braces and other dental treatment in the future to improve their appearance, and healthy teeth are essential for this.

Children with a history of cleft should be seen by a dentist shortly after their first teeth come through. At The Royal Children's Hospital this is generally scheduled for around 18–24 months of age. It is important to see a dentist experienced in the care of people with clefts.

Surgery

Because of the important role of the palate in both speech and feeding, surgical repair is necessary. Palate surgery is done by a plastic surgeon. Palate repair surgery is usually done between 9 and 18 months of age. Your plastic surgeon will discuss timing which will depend on your child's general health and the type of cleft palate.

Cleft palate surgery usually takes around 2–3 hours. Dissolving stitches are used to repair the palate. Your child will need to eat a soft diet for 10 days after palate surgery, and may have to wear arm splints for several weeks to keep their hands away from the mouth as it heals. Following surgery, the average length of stay in hospital is 2–3 nights, and one parent is encouraged to stay overnight during hospitalisation. When your child is comfortable and feeding well they can be discharged from hospital.

Maxillary cleft

The upper jaw does not grow forward proportionally in 50% or more of children who have had a cleft palate repair. The lower jaw usually grows normally. This leads to a poor bite with the lower front teeth sitting in front of the upper front teeth. This can cause difficulties with chewing and affects the appearance of the face. Surgery to move the upper jaw forward can be done after growth has finished — usually around 16–17 years for females, 18–19 years for males. This procedure will be done by a maxillofacial surgeon following orthodontic preparation. Orthodontic preparation with braces can begin up to two years prior to jaw surgery.



Baby feeding with special bottle

In summary

- A cleft palate can affect infant feeding, hearing, speech and teeth.
- A baby born with a cleft palate will require surgery between 9–18 months.
- More surgery may be needed if speech is problematic.
- Jaw surgery may be required after growth has completed.
- Your child may need tubes (grommets) placed in their ear drums.

Recommendations

- Your baby should be seen by a plastic surgeon shortly after birth.

- Feeding support can be provided by your cleft coordinator or speech pathologist.

- Other members of a feeding team (e.g. paediatrician, lactation consultant, dietitian) may need to be consulted for more complex problems.

- Your child should have a routine hearing test (ABR) at around 4 weeks of age and again at 12 weeks.

- Your child's hearing should be monitored annually by an audiologist until at least 5 years of age.

- Your child should be reviewed by an ear, nose and throat (ENT) surgeon prior to palate repair to determine if ear tubes will be needed.

- Your child should be reviewed at a Cleft Clinic on a regular basis (usually at 3, 5, 8, 12 and 16-18 years of age).

- Your child's teeth should be regularly monitored by a dentist experienced in cleft care.

- Your child should be seen by an orthodontist when they are about 7-8 years old.

- Your child's speech sounds and language development (words and sentences) should be monitored by a speech pathologist experienced in cleft care.

- Your cleft coordinator can provide ongoing advice and support as necessary.

Plastic and Maxillofacial Surgery

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