



## **Cleft Palate Repair: The Surgery**

When a child is born with an opening in the roof of the mouth, it is called a cleft palate (Picture 1). The palate or roof of the mouth has two parts: the hard palate in the front of the mouth and the soft palate in back. The hard palate is the bony part that is attached to the skull. The soft palate is the skin (tissue and muscles) that extends from where the hard palate ends to the back of the throat. Babies can be born with a split in one or both parts of the palates. They may also have a split in the gums and lip or a split in only one of these places.

A cleft palate makes it hard for children to eat and speak. Food and liquid go up through the opening into the nose (nasal passage) instead of going down the throat into the stomach. A For your child to be able to speak and swallow normally, the palate needs to seal off the inside passage of the nose from the throat.

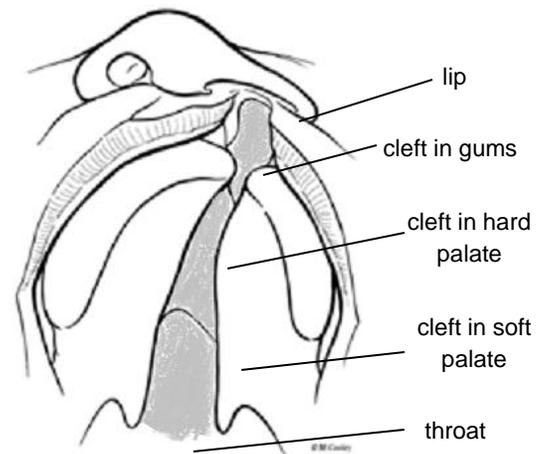
Cleft palate is one of the most common problems found in newborn babies. Each year about 1 in 600 babies is born with a cleft. The cause is not known, but scientists are learning that both genetics (conditions that run in families) and environment matter. You may want to meet with a doctor who specializes in genetics to find out more about what may have caused your child's cleft palate.

The only way to repair a cleft palate is by surgery. The goal is to close the opening in the roof of the child's mouth. Your child will be in the operating room for only a few hours. The hospital stay is usually 1 to 3 days.

### **Preparing for Surgery**

You will begin to prepare your child for surgery 2 weeks before the scheduled date.

**Starting 2 weeks before surgery, do not give aspirin or ibuprofen (such as Motrin® or Advil®). These medicines may cause bleeding problems after a cleft palate repair.**



**Picture 1** Cleft palate before surgery

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## Preparing for Surgery, continued

A nurse from the operating room (OR) may call you up to a week before surgery to review your child's health history. You will be asked detailed questions about your child's current health, recent illnesses, allergies, past surgeries, medicines, and immunizations. It is important to know if he or she has been exposed to any contagious diseases, including the flu or chickenpox, in the last month. Tell the nurse if your child's immunizations are not up to date.

### The day before surgery:

A nurse from the OR will call you to give you the following information:

- The time of surgery.
- The time to arrive at the hospital and directions to the Surgery Unit entrance.
- Food and drink instructions. It is very important to follow these exactly.
  - Your child may have breast milk up to 4 hours and formula up to 6 hours before surgery. **All other liquids, semi-liquids and solid foods MUST BE STOPPED 8 hours before surgery.**
  - Your child may have **CLEAR LIQUIDS up to 2 hours before surgery.** After that, he may have nothing else to drink. Clear liquids are those you can **see through** that have no pulp or food bits in them. Examples of clear liquids are water, apple juice, white grape juice and Pedialyte®.
- Prescription medicines. Give your child his usual prescription medicines, unless the doctor has told you to stop certain ones before surgery. Give medicine with a very small sip of plain water or formula. If your child is due to take his medicine during the surgery, give it before you come to the hospital. If you have questions about medicine, please ask the nurse who calls you.

The nurse will again ask you questions about your child's health, such as:

- recent exposures to contagious diseases
- a list of medicines your child is taking
- anything about your child's health that the doctors and nurses need to know to care for the child.

If no one has contacted you by **4 PM**, please call the main OR at (614) 722-5200.

### The day of surgery

- Give your child a bath before coming to the hospital.
- Pack a few favorite toys. Please label all items with his name.
- Be prepared to fill out insurance and permission forms. Bring the health card or medical insurance card, your child's social security number and your social security number or the social security number of the child's legal guardian.

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## Preparing for Surgery, continued

### The day of surgery

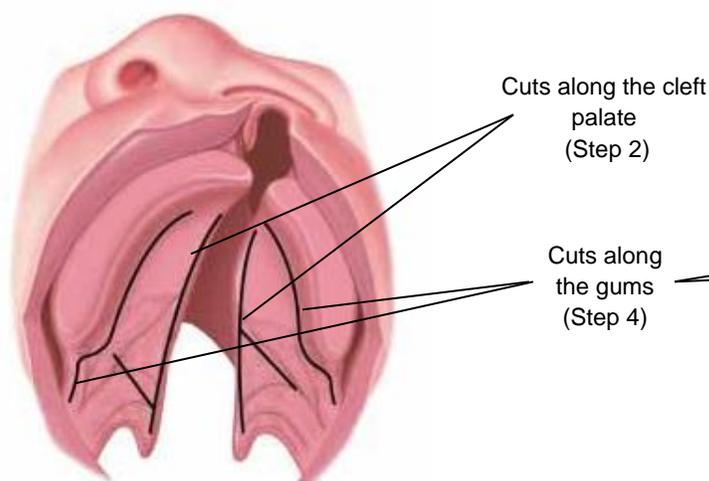
- The nurse will review your child's medical history one more time.
- Your child will be weighed and measured. He will have his blood pressure and temperature checked. He will have a physical exam.
- The Cleft Palate Team of specialists will meet you before and after the surgery.
- A nurse will explain special care routines, procedures, and home care to you.
- Parents must wear their pink/yellow badges at all times. Visitors must go to the information desk and get a blue visitor's pass.
- Children under 12 are **not allowed** to visit the patient units. This helps reduce the risk of infection to our patients.

## Surgery

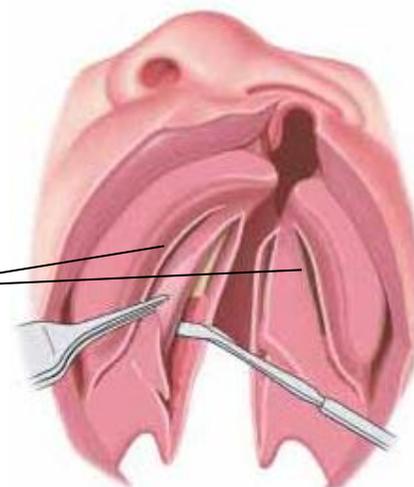
A team of specialists works together during and after the surgery. First, a doctor called an anesthesiologist will give your child medicine to fall asleep. The medicine is given as a mist that is breathed in through a mask. After your child is asleep, the anesthesiologist will put an IV into a vein so that stronger pain medicine can be given. This stronger medicine helps your child go into a deeper sleep and not feel any pain. The anesthesiologist will stay in the operating room the entire time to make sure your child feels no pain.

After your child is asleep, the plastic surgeon will follow these steps:

1. Place a device or brace into your child's mouth to keep it open during the surgery
2. Make incisions (cuts) on both sides of the palate along the cleft (Picture 2)
3. Loosen the layer of tissue attached to the bone of the hard palate. This will allow the tissue to be stretched (Picture 3).



**Picture 2** Cuts or incisions into the palate



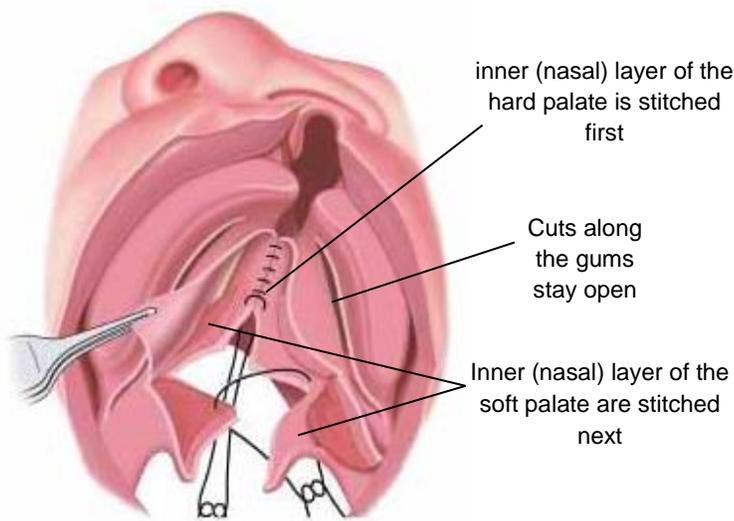
**Picture 3** Skin is loosened from the hard palate (Step 3).

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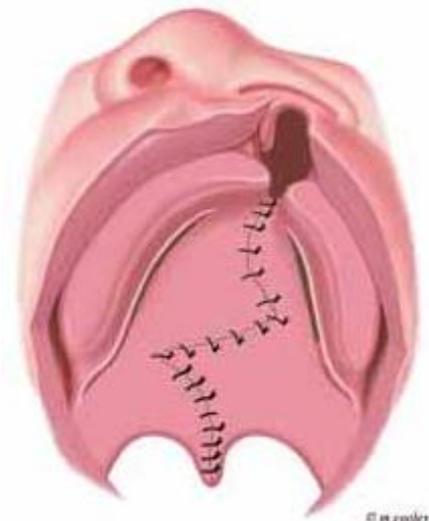
## Surgery, continued

4. Make a cut along the gums. This will allow the tissue of the palate to be stretched and moved toward the middle of the roof of the mouth (Picture 2, page 3). The incisions along the gums will be left open to heal over the next three weeks.
5. Close the inner (nasal) layer of tissue using stitches (sutures) that will dissolve as the incision heals (Picture 4).
6. Close the outer (oral) layer of tissue with sutures that will dissolve (Picture 5).
7. The incision inside your child's mouth will look like a "Z" (Picture 5).

The surgery is now complete.



**Picture 4** Inner (nasal) layer of tissue is closed.



**Picture 5** Outer (oral) layer is closed (Step 6). "Z" shaped closure of repaired cleft palate (Step 7)

The "Z" closure improves your child's speech in the following ways:

- It lengthens the soft palate. A "Z" incision is longer than one in a straight line. As any incision heals, it will shorten in length. The soft palate needs to be as long as possible. More tissue will help the palate seal the nasal passage from the throat when your child speaks.
- It places the muscles in the soft palate into a more normal position to heal and grow.

If your child has a cleft in the gum, it will be repaired at a later time. The child's upper jaw needs to grow many years before this opening is closed. The cleft in the gum is usually closed when your child is 7 or 8 years old. Often, the cleft lip has been repaired before the cleft palate surgery.

## What to Expect After Surgery

Some pain is normal after surgery. Your child will be sent home with pain medicine and an antibiotic. For more information on how to care for your child at home, see Helping Hand HH-I-18, *Cleft Palate Repair: Instructions after Surgery*.

For the first few days after surgery, you may see the following things.

- There may be a small amount of blood in the mucous or saliva (spit) for several days. The mucous or saliva will appear pink.
- More clear drainage than usual may come from the nose (snot) for several weeks. This is because the opening between the nose and mouth is now closed. Before surgery, mucous drained directly into the mouth.
- Your child may snore and sound congested for several weeks. This will go away when the swelling goes down and there is less drainage.
- It may be harder for your child to sleep as well as before surgery. Sleep habits should return to normal after several weeks.
- The appetite may not be as good as it was before surgery. After surgery, it is most important to make sure that your child is drinking enough liquids to stay hydrated.