

# CLEFT LIP REPAIR - PRIMARY SURGERY

## INFORMATION FOR PARENTS

### Introduction

A cleft lip is a gap in the upper lip which can pass from the lip and up into one or both of the nostrils. Often though the cleft involves only the lower part of the lip. In some cases there may also be a cleft of the gum and palate inside the mouth. Cleft lip/palate is amongst the most common of congenital abnormalities occurring in approximately 1 in 600 live births. About 90 new patients with cleft of lip and or palate are born each year in Ireland. Cleft of lip and or palate can result in a wide variety of disabilities.

Clefts may affect:

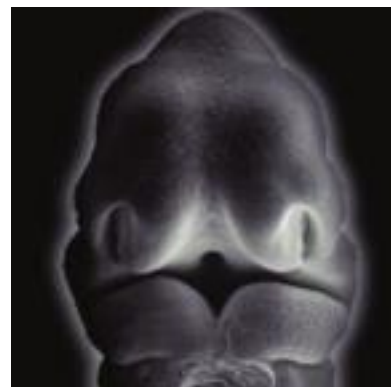
- breathing and feeding in newborn babies
- speech
- hearing
- facial appearance
- facial growth
- teeth
- psychological and social adjustment

This diagram illustrates a left unilateral cleft lip. Cleft can also be bilateral which is a more severe form.



### Why does cleft lip/palate occur?

The face forms during the early stage of pregnancy (from the 5<sup>th</sup> to the 8<sup>th</sup> week post conception). At the 5<sup>th</sup> week all faces have clefts (gaps) which should close. The upper lip develops from 3 separate parts which fuse with each other. Though no part is missing, clefts happen when certain parts do not join. It is not understood why parts of the face do not fuse properly. In some cases there is a family history of clefts. In most cases there is no single cause and the reason is never discovered. Having a first-degree relative (ie mother, sister, daughter) increases the risk of clefts by about 40 times.

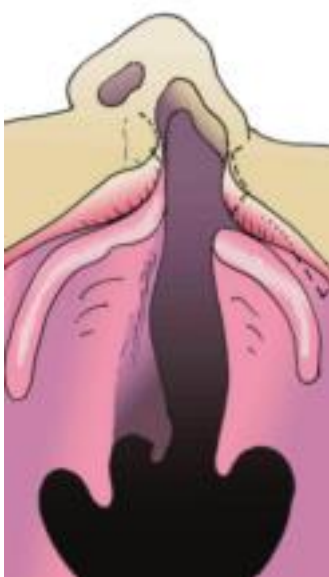


## What does surgery involve?

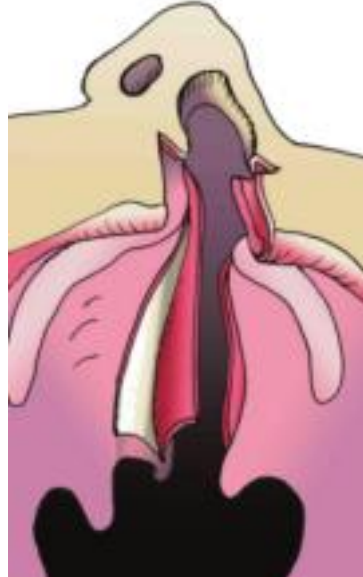
Cleft lip repair is usually carried out at three to four months of age. Although some cleft units around the world carry out neonatal repair (within the first one to two weeks after birth) we believe that this operation has no advantage for the baby, is higher risk and may actually result in a less satisfactory result.

The operation involves joining the tissues which have not joined while in the womb. No tissue or material is taken from elsewhere. The surgeon uses magnification to allow the small structures to be accurately joined. The cleft lip is repaired taking particular care to accurately join the lip muscles. The front of the hard palate (if the cleft lip is associated with a cleft of the palate) may also be repaired at this time (Vomerine flap). There may be surgery to improve the symmetry of the nose. The floor of the nose is closed but the gum is not joined at this stage. This is done, if necessary, at the age of 8 to 10 years with a bone graft). All the stitches are dissolvable, apart from 2-3 hitching stitches which are occasionally used in the nose. These hitching stitches are easily removed at one week in the clinic.

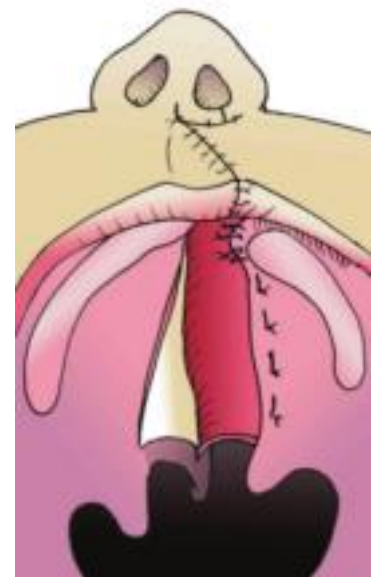
In very wide clefts a lip adhesion may be performed. This loosely closes the gap without putting the lip tissue under too much tension. This is usually done at 2-3 months of age. The lip adhesion helps narrow the gap over the next few months of growth, making the full lip repair much easier. Bilateral cleft lip repairs may also have to be done in stages particularly if they are wide.



1 This diagram shows a complete right cleft lip and palate



2 The skin edges of the lip are prepared the vomer flap is raised

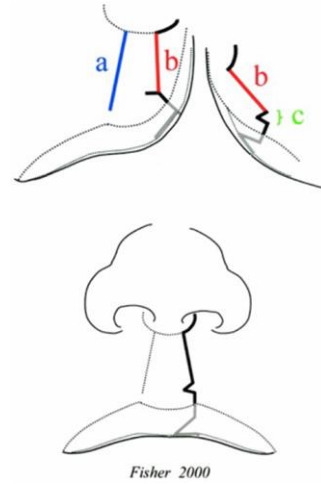


3 The lip is stitched and the vomer flap is used to close palate.

## What type of lip repair is performed ?



Anatomical repair design  
template; Fisher



We Perform the anatomical lip repair as described by David Fisher from Toronto. This repair is used in all the Irish units as we feel it delivers more natural and consistent results.



## What happens before the operation?

You will receive information on how to prepare your baby for the operation in your admission letter. You will need to bring your baby to the ward the day before the operation is due, so that you can meet the team who will be looking after your child. Your baby will need to have a medical check up and blood test to check everything is fine before the operation. He or she may have some photos taken for medical records and may need to have a dental impression too. The doctors will also need to see you to explain the operation in more detail, discuss any worries you may have and ask you to sign a consent form. If your baby has any medical problems, such as allergies, please tell the doctors. If your baby is on any medications, please bring these with you. An anaesthetist will also visit you to explain your child's anaesthetic in more detail.

### **Is there anything that I should do before the operation?**

If possible, it is advisable to keep your baby away from children or adults who have colds, 'flu or other infections, to reduce the chances that your baby's operation may have to be postponed.

### **How long will the operation take?**

The operation usually takes from one to two hours, depending on complexity.

### **Who performs the operation?**

The operation is performed by the plastic surgeon on the team.

### **What anaesthetic is used?**

The baby is given a general anaesthetic by an anaesthetist who specialises in giving anaesthetics to babies and children. Generally with younger babies ( 3 months) , a nurse will bring the baby into the anaesthetic room . For older babies and children, one parent will be able to go with the baby to the anaesthetic room for the beginning of the anaesthetic. This usually involves the baby breathing some anaesthetic gas until sleepy. Later, a tube is passed into the air passage (trachea) to safeguard breathing during the operation and a small needle (drip), is put in a vein and usually left for some time after the operation to allow fluid to be given.

### **When can I see my baby after the operation?**

Your baby will go to the recovery room after the operation and one parent will be able to go to the recovery room with a nurse when the baby is waking up. Because local anaesthetic is used, your baby will probably not be feeling any pain at this stage but may be distressed, perhaps because of hunger. There may well be a little blood around the face at this stage but there is usually no need for concerned.

Your baby will obviously look different after the operation and some parents find this a shock as they have become used to the baby's appearance. You may miss the "wide smile". However, this phase will soon pass.

### **When can my baby feed?**

We are happy for your baby to feed as soon as he or she is awake after the anaesthetic. The first feed may be difficult, partly because of the numbness of the lip.

## **What happens afterwards?**

When your baby has returned to the ward, they may not at first be drinking enough and may require some extra fluids through their drip. (The needle which is in the vein). This will be removed once he or she is drinking again. You can feed your baby as soon as he or she wakes up and you should be able to feed by breast or bottle as you did before the operation. Occasionally it may initially be easier to feed by syringe or spoon. Although your baby may have a feed immediately after the operation, he or she may take some time to return to normal feeding.

Soon after the operation there may be some bleeding but this usually stops quickly. Only very rarely will any further measures be necessary to stop the bleeding. Your child's lip may look swollen and bruised for the first few days after the operation, but this will soon go down. The corners of your baby's mouth may be sore for a few days after the operation, but this will improve if they are kept clean and softened with Vaseline. There may also be some crusts on the stitch line of the lip but leave these alone and they will soon separate.

He or she will also have medicines for pain relief after the operation. Your baby will have a sore mouth and so may not feel like eating or drinking much. It can help to give him or her some pain relief like paracetamol, ibuprofen or codeine beforehand, so eating and drinking is not so painful.

Your baby will need to take antibiotics after the operations to prevent any infection. He or she will need to take them for five days so we will give you some to take home with you.

## **How long will my baby be in hospital**

Usually about 3 nights including the night before surgery. You will be able to stay in a room with your baby

## **When you get home... ..**

Your baby should have resumed normal feeding by the time you leave hospital, so you should continue in the same way at home. If the palate has also been repaired, you should clean the inside of your child's mouth after eating, drinking and taking medicines, using cooled boiled water. The easiest way to do this is to give him or her a bottle containing a small amount of water.

Try to stop your baby putting his or her fingers or any toys into the mouth as this could damage the repair. If they are trying to touch their lip or palate a lot in the hospital they may have to wear mitts, and the nurses will show you how to bandage the hands to stop them touching the lip. Try to avoid using a soother (dummy) for the first two or three weeks, if you must make sure it has been sterilised or cleaned in boiling water.

You should call the ward or the cleft team if:

- You are concerned in any way about your baby
- Your baby develops an infection
- The operation site is red
- Your baby has a temperature of 37.5°C or more and paracetamol does not bring it down
- Your baby is irritable and is not feeding well
- Your baby is in a lot of pain and pain relief does not seem to help
- Your baby is not feeding after the first day back home
- There is a lot of bleeding from your baby's mouth
- Sometimes it may appear that a hole has appeared where the palate has been joined. This may close by itself and in general we would not need to be told about it, but if you have any special concerns ring the team

## **Coming back to hospital**

Your baby will need to come back to the outpatients one week after the operation for review.

Most of the stitches are dissolvable but occasionally there are 2-3 stitches in the nose which can be snipped off in the clinic. The stitches used to close the palate are also dissolvable but usually take some weeks to dissolve completely.

We will send you a further outpatient appointment about three months after the operation. These dates will be sent to you in the post.

## **The next few months**

It is not unusual for the lip scar to tighten in the few weeks after the operation and for the lip to temporarily pull up, but this will almost certainly settle again over the next three to six months.

The scar may also be pink and sometimes raised and lumpy in the early weeks after the operation, but this too should settle. We recommend silicone gel on the scar if it is a bit thickened.

## **What are the risks of surgery**

### 1 bleeding postoperatively:

Usually there is some minor bleeding after the operation, but this stops after a few hours. More significant bleeding (usually from the palate) is uncommon but would require a trip back to the operating theatre. Bleeding occurring 5-6 days after the operation is very rare and may be a sign of infection. Should this occur, bring the baby back to the hospital straight away and inform the on call plastic surgery team.

### 2 Infection

If the wound becomes red, and the baby is irritable, not feeding well or has a temperature, it could be a sign of infection. Call the team and/or GP as a change of antibiotics may be required.

### 3 Wound breakdown

This is rare and usually occurs as a result of infection. It is usually not possible to re-stitch the Wound. Revision of the lip may be required when the wound has settled several months later.

### 4 Adverse scar; lumpy, red or stretched

Some scars are very noticeable. A red or lumpy scar is called a hypertrophic scar and may need treatment with steroids and pressure tape or silicone to help it settle.

### 5 Poor growth

Surgery to the lip, particularly the repair of a bilateral cleft lip can create a band of tightness due to scar tissue, which may inhibit the growth of the upper jaw /midface. Poor growth in this area causes problems for dental occlusion requiring orthodontic treatment. In severe cases orthognathic surgery may be required

6 Poor symmetry, poor shape , thin lip

Sometimes, in spite of careful planning and meticulous surgery , the cosmetics of the lip Appearance is poor. The lip may look crooked , asymmetrical or the scar or red part of the lip may be notched. In these cases we tend to revise the lip in a minor operation before the age of five.

7 Anaesthetic problems, chest infection, Air way issues.

Babies can be very irritable after an anaesthetic but this settles after a day or so. They may have a sore throat or even develop a chest infection. It is very rare for the upper airways to swell and cause problems but this would be an emergency. Babies are closely monitored with an oxygen probe for the first night to alert the team to an airway problem. Sometimes the baby might need an inhaler or have the breathing tube reinserted should this problem arise. Fortunately this situation is rare.

If you have any questions, please call:

Baby or Children's surgical ward  
Cork University Hospital  
Switch; 0214546400

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