

Information leaflet for parents/carers

Children Having Ear Construction Surgery for Microtia



This leaflet explains about ear reconstruction and what to expect when your child comes into Birmingham Children's hospital (BCH) for ear reconstruction.

What is Microtia?

Microtia means "little ear" and is a birth defect of the outer ear. The defect varies in severity from an ear that is slightly small to complete absence of the outer ear. It can be unilateral (affects one ear) or bilateral (both ears). The aim of ear reconstruction is to improve the appearance of your child's ear.

What is Autologous Ear Reconstruction?

Autologous ear reconstruction is when we reconstruct your child's ear with their own skin and cartilage. This is normally taken from your child's rib cage when they are under anaesthetic and does not usually affect your child's breathing or any movement. Your Consultant will show you where the cartilage is taken from on your child in clinic.

Ear reconstruction usually happens when your child is at least 10 years of age. This is because your child will have grown large enough to provide enough cartilage to make a new ear. Since ear reconstruction improves the appearance of the ear and does not improve hearing (see the section titled 'What are the benefits?'), it is only offered for children who are fully aware of the risks and potential complications.

What are the benefits?

The benefits of Autologous ear reconstruction are that it improves the appearance of your child ear, increases their self-confidence and balances their facial features. The skin colour and feeling of the reconstructed ear are well matched and long-lasting and there is no need for repeat operations to make the ear in most case. It is not an operation to improve hearing.

What can you expect when you and your child come to the hospital?

You and your child will be seen by team of doctors and nurses who specialise in treating children with Microtia at a clinic. The Ear Reconstruction team is part of the Microtia team of specialists. They will answer any questions that you and your child have about ear reconstruction. You and your child will be fully supported throughout your journey at Birmingham Children's Hospital.

Are there any alternatives to surgery?

If your child's ear has not formed properly your Consultant will discuss the options for reconstruction that are available with the rest of the Microtia specialists. Your child may not be suitable for ear reconstruction with cartilage, so other treatments might be considered, such as using a prosthetic ear made by a team of dedicated specialists. Sometimes, children do not want any form of reconstruction at all, so there is also an option to leave your child's ear as it is.

What is involved in the surgery

If your child is found to be suitable for autologous ear reconstruction and has demonstrated understanding of the surgery and potential risks, your Consultant will then place them on the waiting list. If both ears are affected, usually only one ear will be reconstructed on the day of operation, with the other ear being reconstructed later on. Ear reconstruction usually involves two operations: –

- The first operation is where we take the rib cartilage from your child's chest to make their new ear
- The second operation is to create the groove behind the ear.

The first operation takes place on the date arranged with your Consultant, and then the second operation take place at least six months afterwards. Sometimes, smaller surgeries are needed to improve small details in the new ear. These are not as big as the initial ear reconstruction surgery.

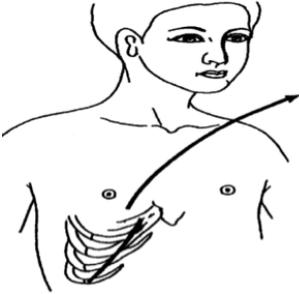
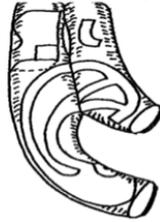


Diagram showing area where rib cartilage is taken



Template being used to design new ear



What happens on the day of my child's operation?

Before you and your child arrive on the ward you will be sent written information of what time to come to hospital and what time your child will need be starved for their operation. You will need to come to hospital early as your child will be going to theatre early in the morning. This is normal for ear reconstruction patients.

You and your child will normally stay on Ward 5. All children requiring ear reconstruction come to this ward, although occasionally you may admitted onto a different ward and end up on Ward 5 after the operation. On the day of your child's operation you will be seen by your Consultant Plastic Surgeon and the Consultant Anaesthetist – the person who puts your child to sleep. Your child will be prepared for theatre and as a parent you will be required to sign a consent form for surgery. This will be done by your Consultant or a team member trained in taking consent for this operation.

How long does my child's operation take?

Your child will be in theatre at least eight - twelve hours. This is normal for this type of complex operation. Naturally, we understand you will be worried about your child whilst they are in theatre, however a member of the Ear Reconstruction team will keep you informed at various points throughout the day of how your child's operation is progressing and to reassure you.

During the operation the cartilage is then shaped into a new ear by your Consultant and then placed under the skin where the ear should be. This is left alone for at least six months to allow the new ear reconstruction to settle down and the skin to adjust to the cartilage underneath. After six months or more your Consultant will then do the second part of the operation.



Diagram showing area where rib cartilage is taken

What happens after my child has their operation?

After your child's operation your child will return to Ward 5 where you will stay with us for about 5 days. You will be encouraged to stay with your child whilst they are in hospital. On return to the ward a member of the ear reconstruction team will be looking after your child quite closely for the next few days.

Your child may have a small drainage bottle under their skin on their head that will be changed every hour for the next four days. Do not worry as this is normal after this type of surgery. A few days after surgery any drains will be removed.

What can I do to help my child after their operation?

After your child's operation you can expect your child to be a little bit sleepy for the first 24 hours or so. This is normal after a long operation. Your child will be encouraged to sit up in bed supported with soft pillows and you will be encouraged to prevent your child from lying on the operated side of their head.

The day after your child's operation your child will be encouraged to sit out of bed for a short while and try and walk around the bed. This will help your child to breathe deeply and to prevent any blood clots in their legs.

Your child will be seen by a chest physiotherapist to help them with deep breathing exercises. This is normal and will help your child to take deeper breathes after their long operation.

We will encourage your child to eat and drink normally after their operation. We will encourage you to give them normal food and drinks, and offer them food little and often throughout your stay.

You will be encouraged to wash your child's hair after the 4th day. This will keep the wound clean and free from infection. One of the Ear Reconstruction team will show you how to wash and touch the skin if you are worried about touching your child's skin.

We will encourage you to tell us if your child is experiencing a lot of pain. The doctors and nurses will make sure that your child is pain free and is given regular pain relief medication

You can expect to see the Microtia ear reconstruction team several times a day whilst your child is in hospital.

Are there any Complications with this operation that I should be aware of?

With all operations there are risks to your child. These are detailed below:

Blood clots



Sometimes after Microtia ear reconstruction a small blood clot can collect under the operation site. This can cause the ear to become painful to touch and sore for your child. Your Consultant will talk to you and your child if this happens, as your child will have to go back to theatre to have this removed.

(Picture here shows an ear with a blood clot)

The blood supply to the skin over the new ear has to adjust to the new cartilage framework sitting underneath it. Sometimes, the blood supply to the skin struggles, causing a hole in the skin allowing the cartilage framework to show from underneath. This will look white/grey on your child's ear. Your child may have to go back to theatre and have an operation to cover this area. Your Consultant will advise you if this needs to happen to your child.

Rare Lung complications

As a result of the operation, in very rare circumstances your child's lung can collapse due to the cartilage being removed lying on top of the lung. This is called a pneumothorax. If this happens your Consultant will need to put a tube (drain) into your child's chest to removing air outside the lung allowing it to re-expand when as your child takes normal breaths. Your child will need to stay in hospital for a few more days until their lung is fully inflated. Your Consultant will tell you after the operation if this has happened. Once your child's lung is fully inflated and the drain is removed there are usually no long term problems with their breathing.

A chest physiotherapist will help your child with deep breathing exercises until your child's lungs are fully inflated.

Risk of infection

Following surgery, the skin overlying the cartilage of your child's new ear may become red or sore. This indicates that they might have an infection. . If this happens your Consultant will make an assessment as to whether this is treatable with antibiotics taken by mouth, or whether your child needs a stronger dose by an antibiotic drip whilst in hospital.

What can you expect before going home?

Before going home you can expect the nurses on Ward 5 to check your child's ear and chest and make sure they are clean before you go home.

Following ear reconstruction it is important that you and your child take care of their new ear. The ear reconstruction team will show you how to clean the new ear with cotton buds before you go home. This will help to keep your child's ear free from infection and ready for the second part of the operation.

Should your child require a clean dressing then you will be advised to keep this in place until you return to the Plastic Surgery Dressings Clinic appointment one week later.

Your child will be given pain relief to take home and a week of antibiotics in either syrup or tablet form to protect the cartilage from infection. The nurse will explain how to take the medicine. You will be given details on how to contact the Ear Reconstruction Team before you go home in case of any concerns or worries.

What can I expect to happen in the next few months?

What will my child's ear look like?

Your child's ear may look swollen for a few weeks after the operation, which can make it difficult to tell if the operation has been a success. This is perfectly normal so please don't worry.

Within a few months after the operation the majority of the swelling will have gone down, meaning you and your child will have a better idea of how the new ear will look.

Your child will not have a dressing over the wound. This makes it easier for the doctors and nurses to keep a close eye on your child's new ear and spot any problems early on.

Looking after my child's ear at home

Your child may wash their hair once you are home. However, when drying their hair, we advise using a hair dryer on a cool setting to dry the skin over the new ear, as the skin may be sensitive to any heat. Your child should wear clothes that button up the front to avoid pulling clothes over their head as this could potentially damage their new ear.(E.g. avoid T-shirts and use open button shirts.)

Whilst at home, your child should not lie on the side of their head with the reconstructed ear for three months. Putting extra pillows behind your child's head when they are asleep will help them to stop rolling on to the new ear.

If your child wears glasses to read we would suggest that you take your child's glasses to the optician to have them altered so that the arm does not rest on their new ear. It may be easier to remove the relevant arm of the glasses to allow the ear to heal.

Sun protection is important for your child even in this country, so when going outside in the sun we would recommend that your child wears a cotton wide brimmed hat, and stays out of direct hot sunlight.

In cold weather a soft warm hat covering the ears is advised, as long as it is not tight.

Will my child feel different after the surgery?

Your child may feel strange with their new ear. We will encourage your child to start looking in the mirror so that they can get accustomed to the changes to their new ear.

Encouraging your child to touch their ear gently will help them get used to the new ear and help desensitize their skin (i.e. reduce any pain on touch).

When I can expect my child to return to school?

Following your child's out-patient appointment one week after surgery, your child should be able to return to school- However:

- You will need to let their school know that they need to start and finish earlier than normal. This is to prevent any bumps or knocks at busy times to your child.
- No Physical Education for six weeks after surgery.
- No swimming for six weeks.
- No contact sports such as rugby, football, wrestling, ice hockey, boxing or kick boxing for three months. Irreversible damage to their reconstructed ear may occur even after this time, which may lead to loss of their new ear.

Can I help my child further at home?

What will my child's ear look like?

As a parent we would suggest that if your child becomes unwell with any signs of infection such as any redness, heat, swelling, discharge or smell from the ear then you contact the Ear Reconstruction team straight away.

If there are any problems we will ask you to return to the hospital to see the Consultant or Ear Reconstruction team straight away. See the 'Further Information' section at the end of this leaflet for contact details.

The Final part of the Microtia ear reconstruction operation

You and your child will be given a date to return to the hospital at least six months after the operation for the final part of the ear reconstruction. This time period allows the initial ear reconstruction to heal fully. The timing of this surgery will be guided by your Consultant Plastic Surgeon. The second part of the surgery is when the new ear is lifted away from the side of your child's head.

Again your child will be given a date and time to come into Ward 5. This final stage of the operation is shorter and lasts about four hours. Your Consultant will explain this stage of the operation to you and your child.

In this operation your child will require a skin graft. This means taking a thin sheet of skin from either the side of your child's scalp or the outer side of their thigh to cover the space behind the ear creating the groove. Your Consultant will tell you where they will take this skin graft so that you will be prepared on their return to the ward.

The timing of this surgery will be guided by your Consultant Plastic Surgeon. The second part of the surgery is when the new ear is lifted away from the side of your child's head.

Again your child will be given a date and time to come into Ward 5. This final stage of the operation is shorter and lasts about four hours. Your Consultant will explain this stage of the operation to you and your child.

In this operation your child will require a skin graft. This means taking a thin sheet of skin from either the side of your child's scalp or the outer side of their thigh to cover the space behind the ear creating the groove. Your Consultant will tell you where they will take this skin graft so that you will be prepared on their return to the ward.

The skin graft is usually fixed with dissolvable stitches (we don't take these out) and held in place with a special dressing. Unlike the first operation your child will have a dressing on their head. This is to keep the graft warm and allow it to heal under the dressing.

Your child will have some their hair shaved where the skin graft is to be taken. This is normal so please do not worry. Your child's hair will grow back quite quickly once this area is healed so they should not have any bald patches on their head.

Your child will still require nursing care when they return to the ward but this will not be as intensive as before but you can expect the same care as before on Ward 5.

The same risks apply as the first operation but this time your child will only be in theatre a few hours for the final stage of the operation.

After the final operation your child will be allowed home with the dressing on their head. You will be given an appointment to return to the Plastic Surgery Dressing Clinic after 5 days so that the wounds can be reviewed. Another dressing may be applied at this time until all your child's wounds have all healed. The Consultant and plastic surgery nursing team will advise you on the next appointment.

The skin graft may remain fragile for the first two weeks so it is important that you and your child do not knock their head as the ear can be irreversibly damaged. All after care after the final operation will be given by your Consultant, and Plastic Surgery nursing team.

You will be given contact details of the Ear Reconstruction team on discharge from hospital. We strongly advise you to contact us straight away if there are any problems.

Looking after and sharing information about your child

We have a duty of care to help patients and families understand how information about them is kept and shared and we include the following information in all our patient leaflets:

Information is collected about your child relevant to their diagnosis, treatment and care. We store it in written records and electronically on computer. As a necessary part of that care and treatment we may have to share some of your information with other people and organisations who are either responsible or directly involved in your child's care. This may involve taking your child's information off site. We may also have to share some of your information for other purposes; such as research etc. Any information that is shared in this way will not identify your child unless we have your consent. If you have any questions and/or do not want us to share that information with others, please talk to the people looking after your child or contact PALS (Patient Advice and Liaison Service) on 0121 333 8403.

Further Information

If you have any problems then please contact the Plastic Surgery Registrar on call via the switchboard at Birmingham Children's Hospital. The Registrar will then contact Mr Lloyd who can then make arrangements for you to be seen:

Plastic registrar on call for the day via switchboard 0121 333 9999
You can also try the plastic specialist nurses on 0121 333 8117 or bleep 55393/55002, or Mr Lloyd's secretary's number on 0121 333 8755
If you are unable to contact the Plastics Registrar or speak to a member of the ear reconstruction team, we would advise you to attend the Emergency Department for assessment.

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