

Alveolar bone graft (ABG)

Information for parents, carers
and children

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This leaflet is about the ABG operation. We hope it will help you explain the procedure to your child. You can use the quiz, word search and ABG plan to familiarise your child with important words, and prepare them for the operation. If you have any further questions, please speak to a member of the cleft team (contact details at the end of this leaflet).

What is an ABG?

Children that are born with a cleft (gap) may have a gap in their alveolus (the part of the jaw that holds the teeth). An alveolar bone graft is when bone is taken from one part of the body (normally the hip) and is transferred to the alveolus to replace the bone that is absent.

Why does my child need an ABG operation?

Having a gap in the alveolus means that adult teeth may not be able to grow into the mouth properly, and into the correct position. There may also be a gap between the mouth and nose where air or liquids can pass through, which results in food or drink coming down the nose.

The ABG operation aims to fix these problems, and to:

- prepare the alveolus for the adult teeth to grow (and for these teeth to be able to be straightened later with braces if necessary)
- stop food and drink coming down the nose
- try to help the bottom of the nose look a little straighter.

When will my child have the operation?

The timing of the operation depends on the growth of the adult teeth. It usually happens between the ages of 8 and 11 years. The best time will be decided by the surgeon (who does the operation) and the orthodontist (a specialist dental surgeon who straightens teeth using dental braces).

Before the operation

What happens before the operation?

For some children, the gap in the jaw has to be made bigger to make room for the bone to go in. The orthodontist might use a dental brace to gently open up the gap. There are different types of braces and the orthodontist will talk to you and your child about which type is best for them, and how long it will take for the gap to be made big enough. When the gap is big enough, a small retainer brace may be fitted to hold the teeth in the right position and maintain the space for the operation.

Whether your child has orthodontic treatment or not, it is important that they always clean their teeth really well. Dental braces and twisted teeth can trap food and make it more difficult to keep them clean so it is best to support your child to make toothbrushing a top priority! Using a small-headed toothbrush and adult toothpaste can help. They should also avoid sticky foods.

How should my child prepare for the operation?

You and your child will be seen in clinic by the cleft team. At this time, you will both have the opportunity to discuss the operation. You can talk about any concerns or questions that you or your child may have.

Consent – asking for your consent

We want to involve you in decisions about your child's care and treatment. If you decide to go ahead, you will be asked to sign a consent form. This states that you agree for your child to have the treatment and you understand what it involves.

If you would like more information about our consent process, please speak to a member of staff caring for you.

You will receive a letter or a telephone call giving you a date for the operation about six weeks beforehand.

You will also be given a date for a 'pre-assessment clinic' (like a medical check-up) which will probably be a week before the operation. At the pre-assessment clinic you and your child will be able to look around the hospital and the ward where your child will stay.

What if my child or I have some questions or feel nervous about the operation or wearing braces?

Sometimes children feel nervous about hospital treatment and operations. This can be for lots of different reasons. They might be worried about having to have braces, being in hospital, or staying away from home, family and friends. Some children feel unsure about having an anaesthetic or are worried about needles. Having questions or feeling a bit unsure is very common.

Talk to us if you or your child have any requests or worries – we can often adjust what we do to make sure you and your child feel that you are in control and to make sure your child is as comfortable as possible.

Don't ever worry that we will think that a question you want to ask is silly, and do ask us to explain things again if you need to. We can also arrange for a clinical psychologist to talk to you and your child – they have helped other families with similar questions, and can help you think things through and give tips on how to make things easier.

What can I do to help my child feel better?

Here are some tips that may help you or your child feel better about coming into hospital:

- **Be prepared.** Encourage your child to talk about the things they are worried about, with you or someone from the cleft team.
- **Ask questions.** Speak to another patient about what their experiences were like. You can either do this yourself if you know someone, or we can put you in touch with someone.
- **Prepare.** There is lots of information on the internet, but it is best not to believe **everything** you read – it might not be the same as how we do things here!
- **Visit.** When you have an appointment here, you can come to the ward so that you and your child can see what it will be like.
- **Comfort.** Your child can bring their favourite toy, photo, or some books and comics from home when they come for the operation.
- **Keep busy.** Think with your child about the things they can do when they are in hospital. There will be time to watch television, play games on the ward or visit the hospital school if they like.
- **Visitors.** Your child may want to ask their favourite friends or family to come and visit them, so check the visiting times of the ward.

Going into hospital for the operation

What happens when my child goes to the hospital?

You will have been told what ward to come to and a member of the team will advise you about how long before the operation your child should stop eating and drinking. For more information, please see our leaflet, **Your child's general anaesthetic**.

How long will my child be in hospital for?

Usually, children come in very early in the morning on the day of their operation, speak to the surgeon and wait to have their operation. They then stay in hospital for one night after the operation and go home the next day. If you live a long way away, you might decide to come up to the hospital the day before your operation and stay for one night nearby.

Can I stay with my child?

Yes, one parent or carer can stay next to the child's bed. Your child can bring some clothes (including nightwear) a wash bag, a soft toothbrush, and one or two of their favourite toys, books or magazines.

What happens when my child has their operation?

When it is time for the operation, the anaesthetist will give your child an anaesthetic to put them to sleep. This is usually given through a tiny tube in the back of their hand. Cream is used on the skin of the hand so that the child feels very little when the tube is placed in. One or both parents/carers can be with the child when they go to sleep.

If your child would prefer, it may be possible for them to go to sleep by breathing in the anaesthetic gas and air from a mask that can be placed over their mouth and nose. You can speak to the nurses, surgeon or anaesthetist about this if you or your child would like. For more information, please see our leaflet, **Your child's general anaesthetic**.

What happens in the operation?

The surgeon will take a small amount of bone from the part of the hip that sits either side of the waist. The size of the bone taken is approximately the size of a 10p coin, although this can vary depending on the child.

The bone from the hip is used to fill the gap in the alveolus. The gum is then carefully stitched over the bone graft to help it heal and the small incision on the hip will also be carefully closed up.

The whole operation takes about two or three hours and your child will be asleep for all of it. After your child wakes up, there will be some stitches in their mouth and a sticking plaster on their hip. Your child will have some painkillers to manage any feelings of discomfort in their mouth and hip.

Your child can have a drink when they wake up and, when they feel like it, they can start to eat soft foods. Most children stay in bed after the operation but they can get up and move about if they want to. If your child feels well enough, they can go home the day after their operation. There may be a little swelling on the lip, cheek or in the mouth, but this settles after a few days, and so does the hip.

After the operation

Does my child need to keep their mouth clean?

Yes, it is really important that your child keeps their mouth clean to prevent infection and to allow the graft the best chance of healing.

- Your child is really unlikely to do themselves any harm while brushing their teeth, so please support them to spend time brushing thoroughly.
- Your child will need to drink water after eating and drinking.
- It is best to use a small soft toothbrush with adult toothpaste to clean the teeth on each side of the stitches.
- If there is a little bleeding or discomfort, don't be alarmed and please continue to be thorough. If it is uncomfortable, you should use a soft bristled toothbrush or soften the bristles of your own brush in hot water. You are more likely to have a problem as a result of poor brushing than brushing too thoroughly!
- You will be given some mouthwash for your child to use in the hospital and at home. This is swilled around the mouth and stitches to keep them clean. (It is not a substitute to good brushing and using a toothbrush is the most important part of keeping the teeth and mouth as clean as possible).
- Your child may be given some antibiotic medicine to take home and they will need to finish the course. The stitches in their mouth will slowly dissolve over a few weeks.

What about my child's hip?

Your child's hip may have a big waterproof sticky plaster on it. The stitches we use, like the ones in the mouth, will dissolve on their own.

Your child will be given painkillers regularly to help any of the soreness in their hip.

It is best for your child to take a shower instead of a bath and apply a waterproof dressing over the plaster for the first week to keep the wound dry and help it heal.

What kind of foods can my child eat?

In order to help their mouth heal, your child will need to have a soft diet followed by a drink of water for two weeks after the operation. They should avoid hard foods such as toast, biscuits and crisps. Instead it will be better to have soft foods such as soups and mashed potato. We will give you a list of suitable foods.

What about school and sports?

It is best for your child to go back to school two weeks after leaving hospital, to avoid the chance of getting an infection, and so that they have time to rest.

We ask that your child does not do any physical or contact sports such as rugby, football or gymnastics for about six weeks, because their hip needs time to recover and get strong again.

Your child will have an appointment to see the cleft team about six weeks after the operation. Another x-ray of the gum area will be taken several months after the operation to see how the ABG has healed.

Does the operation work?

Yes. Usually it is a very successful procedure. It is very rare to have problems with healing, especially if the area is looked after and kept clean.

Activities

You may want to use the following word search, quiz and ABG plan to prepare your child for the operation and familiarise your child with important words and concepts.

ABG word search

Find the words listed below in our word search. They may run horizontally or vertically and even backwards!

ABG
Alveolar
Bone
Brace
Cleft
Dr
Evelina
Gap
Graft
Gum
Hip
Hospital
Mouthwash
Nurse
Operation
Palate
Smile
Teeth



ABG Quiz

Now see if you can answer our questions about the ABG operation (answers are on the last page of this leaflet).

1. Which alveolus do we mean when we say ABG?

- A. An air sac in the lung.
- B. The bone inside the gum that my teeth grow through.
- C. A type of pasta filled with meat.

2. What is a cleft?

- A. A gap.
- B. A type of animal.
- C. Where something joins.

3. Why do I need my alveolar cleft repairing?

- A. So that I will be able to whistle in tune.
- B. So that my teeth can grow properly and my jaw will be the right shape.
- C. Because if I don't, my teeth will fall out.

4. What age do children generally have an ABG?

- A. Between about five and six years old.
- B. Between about eight and nine years old.
- C. Between about eight and 11 years old.

5. What does bone graft mean?

- A. A piece of plastic is used to fill the gap(s) in my bone.
- B. The bone in my jaw is taken out and replaced with a new one.
- C. A piece of bone is taken from one area of my body to another area – usually to replace missing bone

6. Where does the bone come from for the graft?

- A. The bone is usually taken from the hip (the pokey out bone either side and just below your waist)
- B. The bone is usually taken from your elbow.
- C. The bone is usually taken from someone else.

7. For how long before my ABG operation will I have to stop eating and drinking?

- A. You will not be able to eat or drink for about three days before the operation.
- B. You will not be able to eat or drink for six hours before the operation. You'll be able to drink sips of water up to two hours before the operation.
- C. You will need to stop eating and drinking about an hour before the operation.

8. How long will my ABG operation take?

- A. About three hours.
- B. About 10 hours.
- C. About 20 minutes.

9. How will I feel when I wake up from my operation?

- A. Your mouth and hip might feel a bit strange and sore.
- B. You will feel extremely happy and will want to dance around the room.
- C. You will need to go for a swim in the River Thames straight away.

10. How long will I have to stay in hospital?

- A. Usually children come into hospital the day before their operation and almost all children go home the day after their ABG. This would mean spending two nights in hospital in total.
- B. Usually children come into hospital a week before their operation and stay for a week afterwards.
- C. You will go straight home when you wake up from your operation.

11. What can I eat after my ABG operation?

- A. Anything at all.
- B. Only foods which start with the letters A, B or G.
- C. Only soft food to start with. You can start eating harder foods after a couple of weeks.

12. Why do I need to keep my mouth clean after my ABG operation?

- A. So that your breath smells fresh.
- B. To help prevent an infection while the jaw is healing and the new bone is growing.
- C. To stop your tongue feeling strange.

13. How long will I need to stay off school after my ABG operation?

- A. Two weeks.
- B. At least a month.
- C. At least a term.

14. How long will I need to avoid sports activities?

- A. Forever – you'll never play sport again.
- B. Not at all – you can play rugby as soon as you leave the hospital.
- C. All contact sports should be avoided for at least six weeks.

15. What appointments will I have after I have gone home?

- A. You will need to come back and see the doctor about six weeks after your operation to check that all is well.
- B. You will come to hospital every day for two weeks to see the doctor.
- C. You will not need any other appointments after you have had an ABG operation.

My ABG plan

It might be helpful to write out what your plan is for the ABG operation. You could ask your parents/carers or people in the cleft team to help you fill this in.

My name is

My age

My surgeon is

My orthodontist is

Other people helping me to have this operation are

.....

.....

.....

I'm going to visit the hospital and have a check-up on

.....

I'm going to have the surgery on

.....

The reasons why the operation is helpful for me are

.....

.....

.....

These are the things I am looking forward to about the operation

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.....

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These are the things I am worried about

.....

.....

.....

These are the questions I have

.....

.....

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I will be staying on ward.

The person who will stay with me is

.....

.....

I am going to bring these things with me

.....

.....

.....

I will need to eat a soft diet for two weeks, until

.....

I will go back to school, after two weeks, on

.....

I won't play contact sports for six weeks, until

.....

I am going to go to cleft clinic for a check-up on

.....

Useful sources of information

Cleft lip and palate association (CLAPA)

w: www.clapa.com **t:** 020 78334883 **e:** info@clapa.com

Contact us

If you have any questions about the ABG operation, please contact the Cleft Service Team, **t:** 020 7188 1321, or the Cleft clinical nurse specialist, **t:** 020 7188 1319. You can also speak to the Clinical Psychology Team, **t:** 020 7188 1316.

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit **w:** www.evelinalondon.nhs.uk/leaflets

Evelina London Medicines Helpline

If you have any questions or concerns about your child's medicines, please speak to the staff caring for them or contact our helpline.

t: 020 7188 3003, Monday to Friday, 10am to 5pm

e: letstalkmedicines@gstt.nhs.uk

Your comments and concerns

For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS). To make a complaint, contact the complaints department.

t: 020 7188 8801 (PALS) **e:** pals@gstt.nhs.uk

t: 020 7188 3514 (complaints) **e:** complaints2@gstt.nhs.uk

Language and accessible support services

If you need an interpreter or information about your care in a different language or format, please get in touch.

t: 020 7188 8815 **e:** languagesupport@gstt.nhs.uk

NHS 111

Offers medical help and advice from fully trained advisers supported by experienced nurses and paramedics. Available over the phone 24 hours a day.

t: 111

NHS website

Online information and guidance on all aspects of health and healthcare, to help you take control of your health and wellbeing.

w: www.nhs.uk

Get involved and have your say: become a member of the Trust

Members of Guy's and St Thomas' NHS Foundation Trust contribute to the organisation on a voluntary basis. We count on them for feedback, local knowledge and support. Membership is free and it is up to you how much you get involved. To find out more, please get in touch.

t: 0800 731 0319 **e:** members@gstt.nhs.uk

w: www.guysandstthomas.nhs.uk/membership

Answers to the ABG Quiz: 1B, 2A, 3B, 4C, 5C, 6A, 7B, 8A, 9A, 10A, 11C, 12B, 13A, 14C, 15A.
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Leaflet number: 4006/VER1

Date published: November 2018

Review date: November 2021

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A list of sources is available on request