

# Information for parents and their child undergoing angioplasty or embolisation

Royal Manchester Children's Hospital  
Division of Imaging



# Introduction

This leaflet tells you about the procedure known as angioplasty. It explains what is involved and what the possible risks are. It is not meant to replace an informed discussion between you and your doctor, but can act as a starting point for such a discussion.

Whether your child is having the angioplasty as a planned or emergency procedure, you should have sufficient explanation before you sign the consent form. The procedure will be done in the Children's X-ray department.

## What is angioplasty?

Angioplasty is a way of unblocking a blood vessel (artery), without having an operation. A fine plastic tube, called a catheter, is inserted into the blood vessel and through the blockage. A special balloon on the catheter is then inflated, to unblock the blood vessel and allow more blood to flow through it.

## What is embolisation?

Embolisation is a way of blocking an abnormal blood vessel (artery), again without having an operation. A fine plastic tube called a catheter is inserted into the artery, and special coils of wire or small pieces of solid material are injected through it to block the blood vessel.

## Why does my child need one of these procedures?

There are a number of reasons why your child may require an angioplasty or embolisation, for example if they have a problem with circulation, or a collection of abnormal blood vessels. Some patients may have already had an angiogram, which has shown an abnormal vessel.

## Who has made the decision?

The consultant in charge of your child's case, and the radiologist doing the procedure, will have discussed your child's problem, and feel that this is the best treatment option. However, you will also have the opportunity for your opinion to be taken into account, and if, after discussion with your child's doctors, you do not want the procedure carried out on your child, you can decide against it.

## Who will be doing the angioplasty?

A specially trained doctor called a radiologist. Radiologists have special expertise in using X-ray and scanning equipment, and also in interpreting the images produced. They will look

at these images while carrying out the procedure.

## Where will the procedure take place?

In the X-ray department at Royal Manchester Children's Hospital.

## How does my child prepare for an angioplasty?

We understand that you and your child may be anxious about this procedure. You are welcome to bring your child to see the X-ray department and the room where the angiogram will happen, before the procedure. Please telephone X-ray reception on 0161 701 4000 Monday to Friday 8.30 am to 5.00 pm, or ask your doctor or the ward staff, to make arrangements.

Please feel free to ask any member of staff at any time about anything which concerns you. Please tell your child as much or as little about the procedure as you think they can manage without making them anxious.

Children usually have this procedure under a general anaesthetic. It is most important that your child does

not eat or drink anything before the anaesthetic. Please see the appointment letter for instructions.

If your child has any allergies, you must let your child's doctor know. If your child has previously reacted to intravenous contrast medium (the dye used for kidney X-rays and CT scanning), then you must also tell your child's doctor about this.

## When you arrive

You will be asked to bring your child to the hospital ward on the evening or morning before the procedure where an anaesthetist will come to do a pre-anaesthetic assessment on the ward. Any other necessary tests can be done then too.

## What happens during an angiogram?

You and your child will be brought into the X-ray room, where your child will be put to sleep by the anaesthetist. This may include your child having a needle put into a vein in his or her arm, so that drugs can be given during the anaesthetic. Parents are asked to leave the room while the procedure is being carried out. Your child will lie on the X-ray

table, generally flat on his or her back.

When your child is asleep, the radiologist will insert the needle into an artery, usually in the groin. Once the radiologist is satisfied that this is correctly positioned, a guide wire is placed through the needle, and into the artery. The needle is then withdrawn, allowing the fine, plastic tube called a catheter to be placed over the guide wire and into the artery.

The radiologist uses the X-ray equipment to make sure that the catheter and the wire are moved into the right position, so that they pass into the area of the abnormal blood vessels. If the blood vessel needs to be enlarged, the radiologist will inflate the balloon on the end of the catheter to stretch the blood vessel. If the blood vessel needs to be blocked, the radiologist will pass small flakes of solid material down the catheter. They may also pass down the catheter small lengths of wire called coils which curl themselves up inside the blood vessel and block it. Either of these procedures may need to be repeated several times to work properly during the anaesthetic.

The radiologist will check progress by putting a special dye down the catheter and using X-rays to show how much the treatment has worked. When they are satisfied that a good result has been obtained, the balloon is deflated and the catheter is removed. The radiologist will then press firmly where the needle went into the skin for several minutes, to prevent any bleeding.

## Will it hurt?

Your child may feel some stiffness and discomfort in their groin after the procedure. This is usually not severe. If there is any pain, please ask the ward staff for some pain relieving medicine.

## How long will it take?

Every patient is different, and it is not always easy to predict how difficult the procedure will be.

Generally, the procedure will last approximately half an hour. As a guide, expect your child to be in the X-ray department for about an hour and a half altogether.

## What happens afterwards?

At the end of the procedure, the radiologist will inject a local anaesthetic into the area where the catheter was inserted to reduce the pain when your child wakes up.

Then your child is usually taken to the recovery room in the operating theatre suite where they can be more safely brought round from the anaesthetic. You will be allowed to see your child as soon as they are properly awake. The nurses will also look at the area where the needle went into the skin to make sure there is no bleeding from it. Your child will then go back to the ward. They may be allowed home on the same day, or kept in hospital overnight.

## Are there any risks or complications?

Angioplasty and embolisation are both very safe procedures, but there are some risks and complications that can arise. There may be a small bruise around the site where the needle has been inserted and this is quite normal. If this becomes a large bruise, then there may be a risk of it getting infected and this would

require treatment with antibiotics. Very rarely, damage can be caused to the artery by the catheter, or the balloon, and this may need to be treated by surgery or another radiological procedure.

Sometimes it is not possible to manoeuvre the wire through the blockage, and occasionally despite inflating the balloon several times, the narrowing may be so severe that it does not open up as much as anticipated.

Occasionally people feel unwell for a few days after an embolisation. This can happen if the part of the body that had been supplied by the abnormal blood vessel is damaged. There is a very small possibility that your child will have to stay in hospital for a little longer, or if they have been discharged you may need to take them to see your GP or the accident and emergency department after the procedure if they are feeling unwell.

As with any mechanical device there is also the possibility the equipment may fail to work properly.

Despite these possible complications, the procedure is normally very safe, and is carried out with no significant side-effects at all.

## When will your child get the results?

The images will be examined after your visit and a written report on the findings sent to your referring doctor which is normally available in 14 days.

## Finally...

Some of your questions should have been answered by this leaflet, but remember that this is only a starting point for discussion about your child's treatment with the doctors looking after them. Make sure you are satisfied that you have received enough information about the procedure, before you sign the consent form.

## Other sources of information

### Websites

For general information about radiology departments, visit The Royal College of Radiologists' website: [www.goingfora.com](http://www.goingfora.com).

NHS Choices can be found at [www.nhs.uk](http://www.nhs.uk)

### NHS Direct

For health advice or information you can call NHS Direct on 0845 45647 or visit the website: [www.nhsdirect.nhs.uk](http://www.nhsdirect.nhs.uk).

We understand that there may be questions that either you or your child would like answering. Most of us forget what we were going to ask the doctor or the nurse.

Please write your questions below:

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## No Smoking Policy

Please protect our patients, visitors and staff by adhering to our no smoking policy. Smoking is not permitted in any of our hospital buildings or grounds, except in the dedicated smoking shelters in the grounds of our Hospital site.

For advice and support on how to give up smoking, go to [www.nhs.uk/smokefree](http://www.nhs.uk/smokefree).

## Translation and Interpretation Service

It is our policy that family, relatives or friends cannot interpret for patients. Should you require an interpreter ask a member of staff to arrange it for you.

تنص سياستنا على عدم السماح لافراد عائلة المرضى او اقاربهم او اصدقائهم بالترجمة لهم. اذا احتجت الى مترجم فيرجى ان تطلب ذلك من احد العاملين ليرتب لك ذلك.

بماری یہ پالیسی ہے کہ خاندان ، رشتہ دار اور دوست مریضوں کے لئے ترجمہ نہیں کر سکتے۔ اگر آپ کو مترجم کی ضرورت ہے تو عملے کے کسی رکن سے کہیں کہ وہ آپ کے لئے اس کا بندوبست کر دے۔

ইহা আমাদের নীতি যে, একজন রোগীর জন্য তার পরিবারের সদস্য, আত্মীয় বা কোন বন্ধু অনুবাদক হতে পারবেন না। আপনার একজন অনুবাদকের প্রয়োজন হলে তা একজন কর্মচারীকে জানান অনুবাদকের ব্যবস্থা করার জন্য।

Nasze zasady nie pozwalają na korzystanie z pomocy członków rodzin pacjentów, ich przyjaciół lub ich krewnych jako tłumaczy. Jeśli potrzebują Państwo tłumacza, prosimy o kontakt z członkiem personelu, który zorganizuje go dla Państwa.

Waa nidaamkeena in qoys, qaraaboamasaaxiiboaysanu tarjumikarinbukaanka. Haddiiad u baahatotarjumaankacodsoxubinka mid ah shaqaalahainaykuusameeyaan.

我们的方针是，家属，亲戚和朋友不能为病人做口译。如果您需要口译员，请叫员工给您安排。



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