



A lifetime of specialist care

Royal Brompton & Harefield **NHS**
NHS Foundation Trust

Cardiac catheterisation

Information for patients and carers





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This leaflet gives you general information about cardiac catheterisation for your child. It does not replace the need for personal advice from a healthcare professional. Please ask us if you have any questions.

What is cardiac catheterisation?

Cardiac catheterisation is a way to find out detailed information about your child's heart. It is used to diagnose and treat certain heart conditions.

Children are given a general anaesthetic so they are asleep while the procedure is carried out. We then insert a thin tube called a catheter into a blood vessel, usually in the groin. The catheter is pushed gently up the blood vessel towards the heart. A fluoroscopy (a low dose X-ray) – shown on a TV monitor – is used so we can view the catheter's progress.

Once the catheter is in place, we measure the blood pressure in different parts of the heart. A special dye is sometimes injected through the catheter to make the arteries show up more clearly on the X-ray.

Another test, called a transoesophageal echocardiogram (TOE), can be done at the same time as the cardiac catheterisation. TOE is a special type of ultrasound

scan that uses sound waves to create clear moving pictures of the heart. It involves a small tube being threaded down through your child's mouth. TOE enables us to see clear pictures of your child's heart from a different angle, which can be very helpful.

This additional procedure is only carried out with your consent.

Once the cardiac catheterisation is completed, we put a dressing over the entry site (at the top of the child's leg) to stop any bleeding.

The results of the cardiac catheter are usually available immediately, but for some children additional tests may be needed. Sometimes a decision on further treatment is only made after discussion at our weekly joint cardiac conference, which all of our cardiologists, surgeons and intensive care doctors attend. If this happens, your cardiologist will contact you to talk about the treatment options.



There are three different types of cardiac catheterisation

- **Diagnostic cardiac catheter**

This helps us decide the best way to treat more complex conditions, including the planning and timing of surgery.

- **Interventional cardiac catheter**

Sometimes we can treat cardiac conditions with an interventional catheter, instead of heart surgery. For example, we can use it to:

- make extra holes in the heart to treat transposition (round the wrong way) of the great arteries
- close holes to treat some atrial septal defects and ventricular septal defects
- close ducts to treat patent ductus arteriosus
- insert stents (small metal tubes) to keep blood vessels open in cases of aortic narrowing
- stretch narrowing valves or blood vessels using a balloon on the end of the

catheter in patients with pulmonary stenosis and aortic stenosis.

- **Electrophysiology study and radiofrequency ablation**

An electrophysiology study is a test to measure the heart's electrical activity and diagnose abnormal heart rhythms. We use a catheter with an electrode at the tip (a small piece of metal that conducts electricity) to collect information about the heart's electrical activity.

It is often possible to use the electrode to deliver electrical pulses to ablate (destroy) the small areas of the heart that are causing the problem.

Are there any possible complications of cardiac catheterisation?

Cardiac catheterisation is very safe, but there are risks to any procedure. These will be fully explained to you when we are getting your permission to go ahead with the procedure.

Complications can include:

Rhythm disturbances

Sometimes the heart can beat abnormally while the catheter moves inside the heart. Usually it returns to normal once the procedure is over, but occasionally treatment – a mild electric current or a temporary pacemaker – may be needed to stabilise the rhythm.

Blood vessel blockage

Blood vessels in babies and children are small, and cardiac catheters can cause blood clots

to form and block the blood flow. This is usually temporary and corrected with a medicine called heparin.

Bleeding from the blood vessel

Bleeding from the vessel can be stopped by using a dressing to apply pressure to the entry site (usually the groin, where the catheter was inserted).

Side effects of the anaesthetic


Your child may be drowsy, feel sick, and need time to feel better after a cardiac catheterisation. If this happens when the procedure has been carried out in the afternoon, we will ask you to stay an extra night in hospital for observation.

Before the cardiac catheterisation

The paediatric co-ordinators will call you to arrange your child's admission to the hospital. They will then send you a letter confirming details of the admission. At this stage it is very important you tell us if your child is unwell with

cold or flu-like symptoms, or diarrhoea or vomiting. The cardiac catheterisation may need to be delayed.

It is also very important your child does not have any outstanding dental treatment.



Problems with teeth or gums can be a major source of infection and bacteria (germs) can enter the bloodstream and get into the heart. This is called endocarditis and can seriously damage the heart valves and cause other major complications. If your child has tooth decay or needs any fillings, the cardiac catheterisation will need to be rescheduled.

You will also be asked to call the paediatric bed co-ordinator the day before admission to make sure there is a bed available for your child.

It is important your child has an empty stomach before being given the anaesthetic. This means your child will need to be 'nil by mouth' (given no foods or fluids) before the catheter catheterisation.

If your child is coming in on the day of the catheter catheterisation, they will need to be nil by mouth from 2am on the morning of admission. If your child is admitted the day before, the nurses will tell you when to stop giving your child food or drink.

What will happen when we arrive at the hospital?

When you arrive on Rose Ward, you will be shown to your child's bed.

We will observe your child and take swabs to test for MRSA (methicillin resistant staphylococcus aureus) – a common infection.

Your child may also have an ECG, a test to record heart rhythm, and an echocardiogram, also known

as an echo, a test that uses sound waves to build up a moving picture of the heart. If you would like more information about either of these tests, please just ask.

You will meet with a cardiologist to discuss the cardiac catheterisation and to sign the consent form.

You will be able to go with your child to the catheter

laboratory and stay until they are asleep (under anaesthetic). A nurse will then escort you back to the ward.

A cardiac catheterisation can take anything from 30 minutes to several hours, depending on the complexity of the study and what we need to do.

What happens after cardiac catheterisation?

Your child will return to Rose Ward after they have recovered from the anaesthetic. The nurses will check on your child regularly. They will make sure the catheter site is not bleeding and that your child's leg has a good blood supply. We do this

by checking its colour and how warm it is. Your child will stay on the ward for a few hours (and possibly overnight). We will make sure they are no longer drowsy, have had something to eat and drink, and have passed urine before they go home.

Going home after a cardiac catheterisation

Wound care

The entry site is quite small and does not need stitches. It will heal in a few days. The area around the site may become a little bruised. Your child can have a bath or shower every day, but should avoid long, hot baths for the first three days after the procedure.

Medication

After some catheter interventions, aspirin is prescribed for three months.


Returning to normal activities

Your child may be tired to begin with, but should be able to return to school and all normal activities within a couple of days.

When to call for advice

It is very important to call the clinical nurse specialists in children's cardiac care immediately if any of the following occur:

- there is bleeding from the entry site

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- the entry site becomes red, swollen, painful or hot to touch
 - the leg becomes discoloured or feels colder than the other leg
 - your child complains of “pins and needles” in the leg.

If you are concerned about your child’s colour, breathing or if there is excessive bleeding from the catheter site, please call 999 for an ambulance. Your child will be taken to the local accident and emergency unit for assessment.

Your follow-up appointment

We will check on your child’s progress at a follow-up appointment. This usually takes place three months after the cardiac catheterisation. We will write to you with details

of the appointment. Please contact your clinical nurse specialist if you have not received details of the appointment within six weeks of discharge.

Getting to the hospital

You need to make your own way to and from the hospital. Please be aware that there is little or no car parking available.

By bus

Buses 14, 211 and 414 all stop outside the Fulham Wing entrance to the hospital.

Buses 49 and 211 stop outside the Sydney Street entrance.

Buses 11, 19, 22 and 319 all travel along the King's Road and stop near the corner of Sydney Street, which is about a five-minute walk from the hospital.

By tube

The nearest tube station is South Kensington on the Circle, District and Piccadilly lines. It is a 10-minute walk from the hospital. The 49 bus travels from South Kensington station to the hospital. Taxis are also available.

By rail

The nearest mainline train stations are Victoria station and West Brompton station.

Both have good tube and bus connections to the hospital.

Admission is usually for one night, but please come prepared for a two-night stay. One parent or carer can sleep at the child's bedside. Please pack lightly as space is limited.

By car

If a family member is driving you in by car, they can drop off or pick up at the main hospital entrance in Sydney Street.

Parking for patients and visitors

Royal Brompton Hospital is in a pay-and-display parking meter zone (street parking).

There is a public car park three minutes' walk away on Sydney Street, near King's Road.

Parking for disabled badge holders

A small number of disabled parking spaces are available in:

- Cale Street
- Foulis Terrace
- Sydney Street (near the main hospital entrance).

Remember to display your disabled badge.

Map showing Royal Brompton Hospital



Useful contact details

Clinical nurse specialists in children's cardiac care **020 7349 7727**
(direct line – available Monday to Friday from 8am-6pm)

Harefield Hospital paediatric department **01895 823 737**
extension 75573

Rose Ward **020 7352 8121 extension 2412 or 2413 (24-hour)**

Family liaison team **020 7352 8121**
(available Monday to Friday from 8am-6pm) **extension 8588**

The family liaison team works with families both on paediatric intensive care unit and Rose Ward. Its role is to provide support for the parents / carers of children who are patients. If you feel you would like to talk to one of the team members about anything, they are always happy to listen.

Paediatric co-ordinators **020 7352 8121**
extension 2118 then for bleep 1256

Paediatric bed co-ordinator **020 7352 8121**
extension 8588 then for bleep 7078

The Brompton Fountain **03300 22 92 91 (direct line)**
www.thebromptonfountain.org.uk

The Brompton Fountain is a charity that supports children with life threatening medical conditions who are under the care of Royal Brompton and Harefield NHS Foundation Trust.

If you have concerns about any aspect of the service you have received in hospital and feel unable to talk to those people responsible for your care, call PALS on 020 7349 7715 or email pals@rbht.nhs.uk. This is a confidential service.

Royal Brompton Hospital
Sydney Street
London
SW3 6NP
tel: 020 7352 8121
textphone: (18001) 020 7352 8121

Harefield Hospital
Hill End Road
Harefield
Middlesex
UB9 6JH
tel: 01895 823 737
textphone: (18001) 01895 823 737

Website: www.rbht.nhs.uk

إذا كنت ترغب في الحصول على ترجمة فورية لمضمون هذه الوثيقة إلى اللغة العربية، يرجى منك الاتصال بأحد مستخدمينا بجناح المصلحة التي يتم فيها استشفائك. أحد موظفينا سيسعى لترتيب إجراءات الترجمة وإتمامها في الوقت المناسب لك.

Brosurteki bilginin Türkçe tercumesi için tedavi görüyor olduğunuz bölüme bas vurunuz. Bölüm personeli tercümenin gerçekleşmesini en kısa zamanda ayarlayacaktır.

