



Treating your coarctation by stent implantation



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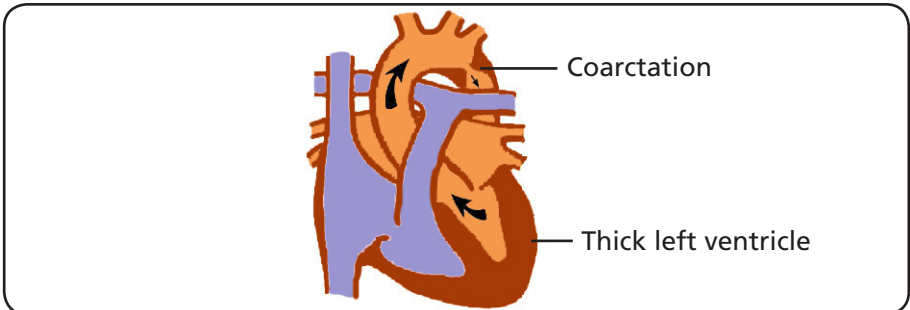
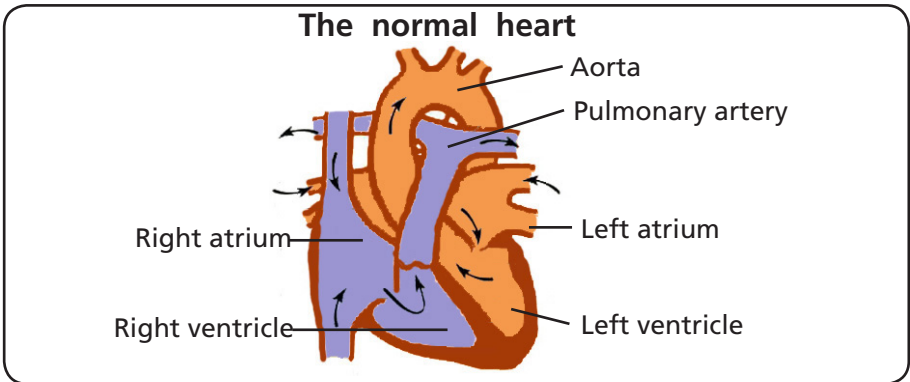

Above + Beyond 
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What is coarctation of the aorta?

Coarctation is one of the common congenital heart defects. It accounts for five to eight per cent of all congenital heart disease.

Coarctation (constriction) of the aorta is a localised narrowing of the aorta, within the chest. The aorta is the main artery leaving the heart, and it supplies oxygen-rich blood to the body. The blood is pumped from the left ventricle, the main pumping chamber of the left side of the heart, through the aorta to the body.

Constriction in the aorta causes the heart to work harder to pump blood past the constriction. This can mean increased blood pressure above the constriction and decreased blood pressure below the constriction. This can cause the ventricle to weaken.



How is coarctation of the aorta detected?

Coarctation may be suspected because of the following:

- a heart murmur
- high blood pressure in the arms
- weak or absent pulse in the legs.

The following tests can confirm the presence of the coarctation:

- echocardiography
- MRI scan
- CT scan
- cardiac catheterisation.

Preparation for the procedure

One of the adult congenital cardiologists in the outpatient clinic will discuss the procedure with you. You will have the opportunity to ask any questions you may have. The potential risks and alternatives will be discussed. If you decide to proceed, your name will be placed on a waiting list. You will receive an appointment from the pre-assessment clinic two to three weeks before your procedure, where you will have routine ECG, chest X ray and blood tests prior to your procedure. The nurse will discuss the procedure again with you and any final questions can be discussed.

What are stents?

A stent is a small metal meshwork tube that can be expanded to open and hold open the constriction in the aorta. The stent is inserted on a special balloon catheter through a tube in the leg and implanted in the aorta. Stents may be covered or uncovered.

Your admission to hospital

You will meet one of the cardiologists and be asked to sign your consent form. The anaesthetist will also visit you before the procedure, as you will have a general anaesthetic.

How the procedure is performed

A small catheter or tube is passed into the artery through your groin area into the aorta, and additional catheters may be passed through your wrist. A balloon catheter and stent is placed inside the aorta at the obstruction and used to dilate (widen) the area.

The stent is left in place after the balloon is removed. You will be asleep for this part of the procedure whilst the anaesthetist monitors you. After the procedure is completed, you are woken up.

At the end of the procedure, you will go out to the recovery area of the catheter laboratory until you are fully awake. You will then be returned to your ward.

Your cardiologist will come and speak to you after the procedure and explain the results.

After the procedure

The doctor or nurse will apply firm pressure to your groin area for approximately 10 minutes to stop the bleeding as the sheath is removed.

It is very important to remember to keep your head flat on the pillow, and to keep your affected leg straight and relaxed on your bed immediately after the procedure. This is to make sure that the wound heals.

You will need to remain lying flat for one hour, and then sit up for approximately two hours following the procedure. This will also depend on the way your wound has been closed.

If your groin starts to bleed, do not panic – call for help.

You can have something to eat and drink when you return to the ward area. If you want to go to the toilet, the nurse will bring you a urinal or a bedpan while you are on bed rest.

The doctor will see you after the procedure to discuss the results and possible treatment with you.

Discharge from hospital

You will be discharged from hospital the morning after the procedure. You will have a chest X ray and an echocardiogram.

Follow-up after discharge

Your cardiologist will see you four to six weeks after your procedure. Routine echocardiograms and chest X rays will be done as part of your follow-up at different intervals.

If you do not receive an appointment, please contact our outpatient co-ordinator on **0117 342 6502**.

A CT scan will be performed three to four months after the procedure to check the position of the stent and any complications. Occasionally, some patients require a repeat dilatation within six to 12 months if it was not possible to dilate the narrowing as much as was required during the first procedure.

If your blood pressure was very high before your procedure, it may take a few months to come down. Your medication will probably continue initially, and we will check your blood pressure when you come to your outpatient appointment.

Discharge advice

Check the puncture site for any signs of a growing lump over the next two to three days. If a lump or pins and needles develops in the leg, you should return to hospital to get it checked. Your GP, the ward or nurse specialist will also be able to advise you.

Bruising around the puncture site may get bigger as gravity pulls it down the leg. Unless it is painful, do not worry about it.

If bleeding occurs from the wound site, lie down and press firmly about the puncture site. If the bleeding continues, please return to the hospital.

Avoid heavy lifting and pulling for the next two to three days.

Strenuous exercise should be avoided for four to six weeks to allow the stent to become secure in its position. Strenuous exercise includes heavy lifting, competitive sport and contact sports.

The DVLA (2006) has no specific recommendations following coarctation of the aorta. It is recommended to avoid driving for 48 to 72 hours or until the leg wound is comfortable. **You cannot drive yourself home following the procedure.**

You may take paracetamol if you feel discomfort in your puncture site. You may take two 500mg tablets every four hours up to four times a day. **Do not exceed this amount.**

Discharge medications

Simple painkillers such as paracetamol may be taken for chest discomfort for the first two to three days.

Aspirin will need to be taken for the first six months as a mild blood thinner.

Other medications will be resumed as prescribed by your cardiologist.

Complications

Complications after this procedure are rare; there is less than a one per cent incidence of problems.

The most serious complication is a tear in the aorta at the coarctation site. If this occurs, urgent surgery may be necessary. Stroke or paralysis of the legs are rare complications.

Other less serious complications include aneurysm formation. An aneurysm is the name used when a section of the aorta becomes over-widened and bulges outwards.

Stent fracture may also occur. This is where a small break occurs in part of the metal framework of the stent. These rare complications will be checked for at your outpatient visits and on your CT scan.

Contact information

If you have any queries about your admission, contact the cardiology waiting list co-ordinator on **0117 342 6557**.

Adult congenital heart nurse specialists

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Wendy Visser

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Notes and queries

Please note that if for any reason you would value a second opinion concerning your diagnosis or treatment, you are entirely within your rights to request this.

The first step would usually be to discuss this with the doctor or other lead clinician who is responsible for your care.

Smoking is the primary cause of preventable illness and premature death. For support in stopping smoking contact **Smokefree Bristol** on **0117 922 2255**.

As well as providing clinical care, our Trust has an important role in research. This allows us to discover new and improved ways of treating patients.

While under our care, you may be invited to take part in research. To find out more please visit:
www.uhbristol.nhs.uk/research-innovation
or call the research and innovation team on
0117 342 0233.

For access to other patient leaflets and information please go to the following address:

www.uhbristol.nhs.uk/patients-and-visitors/information-for-patients/

Hospital switchboard: 0117 923 0000



Minicom: 0117 934 9869



www.uhbristol.nhs.uk



For an interpreter or signer please contact the telephone number on your appointment letter.



For this leaflet in large print, audio or PDF format, please email patientleaflets@uhbristol.nhs.uk.

