

Patient information factsheet

Adult congenital heart service: atrial septal defect (ASD)

We have written this factsheet to give you more information about atrial septal defects (ASDs). It explains what an ASD is, what the procedure to close an ASD involves and the possible risks. We hope it will help to answer some of the questions you may have. If you have any further questions or concerns, please contact us.

What is an atrial septal defect (ASD)?

A normal heart has four chambers: two at the top; the right atrium and left atrium, and two at the bottom; the right ventricle and left ventricle. An ASD is a congenital (present at birth) abnormality and is characterised by a hole in the wall (septum) between the two top chambers of the heart. This abnormality occurs during the formation of the heart. It is often not discovered until adulthood when it may cause symptoms or is found incidentally.

With an ASD, blood can flow through the hole from the left atrium (where the pressure is normally higher) into the right atrium. The extra blood may then travel to the lungs, which can result in shortness of breath, heart rhythm disturbances (atrial fibrillation), stroke and pulmonary hypertension (high blood pressure in the lungs). For this reason, it is generally recommended that ASDs are closed.

Closing the ASD

ASDs measuring less than 40mm (4cm) can usually be closed using a 'double-disc' device shaped like a double-sided umbrella, positioned across the hole in the heart. We will pass this device through a long tube (catheter) from the femoral vein at the top of your leg, up into your heart.

The procedure will be carried out under a general anaesthetic (medicine given to make you go to sleep) in the cardiac catheterisation laboratory (a sterile clinical area), under ultrasound guidance with x-ray screening.

Eventually your heart tissue will grow over the device and it will become part of your heart wall. You will not be able to feel the device once it is in place.

This procedure may not be suitable for some ASDs and surgery may be required to close the hole.

Before the procedure

Do not eat or drink anything for six hours before the procedure.

On the day of the procedure

You will usually be admitted to hospital on the day of the procedure and you are likely to stay for one night, though this may vary depending on your circumstances.

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When you arrive on the ward, the nursing staff will admit you, check your blood pressure, pulse and temperature, and show you around the ward area. A doctor will then examine you, explain the benefits and potential risks of the procedure, and ask you to sign a consent form.

You will then have:

- a blood test
- an ECG (electrocardiogram - a tracing of the heart's electrical activity)

You may also have a chest x-ray and an echocardiogram, which is an ultrasound scan of your heart.

You will also meet an anaesthetist, as you will need to have a general anaesthetic.

Possible complications

ASD closure is a safe and low-risk procedure. The team treating you will have many years of experience performing the procedure. Any significant complication risk is around 2%. However, bleeding, bruising, palpitations (noticeable heartbeats) or a sore throat may be more common. We will discuss any possible complications with you at the time you sign your consent form.

After the procedure

The ward nurses will continue to monitor you and check the small wound at the top of your leg (groin), as there is a small risk of bleeding or swelling. You may be quite sleepy on your return to the ward as a result of the anaesthetic. As soon as you are awake enough, the nurses will get you something to eat and drink. You will usually be given sips of water first.

After a few hours of bed rest, you will be able to get up and move around the ward. You may have some bruising and discomfort in your groin.

The day after your procedure, we will perform another ECG and echocardiogram to confirm that your device is well-positioned. We will discuss your results and any follow-up plans with you before you go home. We may prescribe you tablets to take home, specific to your needs.

Before you leave hospital, the nurses will remove your groin dressing, check your wound and explain how to care for it.

Going home

Do not drive or return to work for at least 48 hours after the procedure.

An outpatient appointment will be sent to you through the post for approximately six to twelve weeks after the procedure. At this appointment, we will assess your device and review your medications.

Contact us

If you have any concerns or questions once you are home, please feel free to contact the following for advice:

Adult congenital heart clinical nurse specialists

Telephone: **023 8120 4739**

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Hospital switchboard

Telephone: **023 8077 7222** then ask for **bleep 1481**

Cardiac catheter lab day unit

Telephone: **023 8120 4420**

Ward E2

Telephone: **023 8120 6473**

Useful links

www.nhs.uk/conditions/congenital-heart-disease

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For help preparing for your visit, arranging an interpreter or accessing the hospital, please visit www.uhs.nhs.uk/additionalneeds