Adult congenital heart service
Atrial septal defect (ASD)

An ASD is a congenital abnormality, present at birth, and characterised by a hole in the wall (septum) between the two top chambers of the heart. (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).

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 can then go to the lungs and 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.

This factsheet explains a procedure used to close ASDs measuring less than 40mm (4cm). However, this procedure may not be suitable for some ASDs, and in these cases surgery may be required to close the hole. If you have any questions or concerns after reading this factsheet please speak to your medical team.

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. The device is passed through a long tube (catheter) from the femoral vein at the top of the leg, up into the 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 the heart tissue will grow over the device and it will become part of the heart wall. The device cannot be felt once it is in place.

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

When you arrive on the ward you will be admitted by the nursing staff who will 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 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. This means you will not be allowed to eat or drink for about six hours before the procedure.

**Possible complications**
ASD closure is considered to be safe and low-risk. 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. The medical team 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 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. First, you will normally be given sips of water.

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.

On the day following your procedure you will have another ECG and an echocardiogram to confirm that the device is well-positioned. The medical team will discuss the results and any follow up plans with you before you are allowed to go home. They may prescribe tablets to take home, specific to your needs.

Before you are discharged the nurses will remove the groin dressing, check the 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.

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

Adult congenital nurse specialists: 023 8120 4739
Hospital switchboard: 023 8077 7222 then ask for bleep 1481
Cardiac catheter lab day unit: 023 8120 4420
Ward E2: 023 8120 6473

**Useful links**
NHS Choices:
www.nhs.uk/conditions/Congenital-heart-disease/Pages/Introduction.aspx

If you need a translation of this document, an interpreter or a version in large print, Braille or on audiotape, please telephone 023 8120 4688 for help.