

# CARDIAC TESTS

## **Echos**

Echocardiography uses sound waves to scan the heart which is then shown as a picture. This is the same type of scan that mothers have during pregnancy. The test does not hurt, but children sometimes have a light sleeping medicine (sedative) so that they stay still. This is the first test that will be done on the baby, as it is the easiest and least stressful way of making a diagnosis of Congenital Heart Disease.

## **ECG**

Electrocardiography (ECG) is the recording of the electrical activity of the heart. The heart has its own electrical system, which passes the message to beat through the heart's muscle tissue. Sometimes the message breaks down and so by recording the rhythm, the medical team can see if the messages are being passed properly. It is also possible to assess the size of the pumping chamber and the thickness of the heart wall.

## **Cardiac Catheterisation**

It is often necessary for the doctors to gain more information about the heart than an echo or ECG can provide, so the children may need to undergo cardiac catheterisation. This investigation is best done with the child asleep, so they will be given a light general anaesthetic.

A long thin tube (catheter) is passed into the heart from a big blood vessel, either from the groin or the shoulder. Through this tube a dye is injected that can be seen on X-Ray (radio opaque fluid). The dye passes into the heart and X-Ray pictures can be recorded. The doctor is then able to see the structures of the heart more clearly.

It is also possible to measure the blood pressure in the different chambers and blood vessels. This information is extremely important when deciding what further treatments can be offered safely. This test is often performed whilst planning the next stage of surgery.

## **MRI Scan**

MRI (Magnetic Resonance Imaging) scans use radio frequency radiation to gain a picture of the soft tissues of the heart from different angles. This can be very useful when looking at the results of surgery. Children need to lie still for this scan and so many of them need some sedation.