



What is Echocardiogram in Children?

An echocardiogram ("echo") is an ultrasound test that uses sound waves to produce computerised images of the heart and the blood vessels around it. It is safe, painless, and without radiation. The echo scan is similar to the ultrasound scan pregnant women will have had before their child is born. The computerised images of the child's heart can be viewed on a small monitor while the procedure is being performed.

Uses of Echocardiogram in Children

The echo is a non-invasive and safe scan that can assess the structure and function of the different heart chambers, valves and surrounding blood vessels. It is used to:

1. Assess if the heart is pumping (functioning) well
2. Measure the size of the chambers and their wall thickness
3. If there are any leakiness or narrowing of the heart valves
4. If the surrounding blood vessels are of normal size and from which heart chamber they are arising from
5. Detect structural abnormalities of the heart like holes between the chambers, fluid around the heart or a mass in or around the heart.

How it is performed and what will happen during the scan?

The child will lie down on his back and on his side in the scanning room, not an operating room. The child will be undressed from the waist up to take the images.

An ultrasound probe is placed with on top of the gel against the skin. A colourless gel will help improve the quality of the pictures taken. The ultrasound probe uses sound waves, which bounce off the different parts of a child's heart, to create a picture which you can see on the computer screen. The probe will be placed on the child's chest, tummy and neck. The probe will not cause your child any pain. You will hear a sound when some images are taken – this is the sound of blood flow from the different heart chambers and valves. You may see some colours on the screen. These colours tell us the direction of blood movement.

Once the needed images are taken, the images are stored on a computer. Analysis and measurements are made, and a report will be issued.

Any preparations needed

If the child is less than 4 years old, a sedative (mild sleep medication) is given which will make them drowsy and fall asleep. Children who need sedation must have an empty stomach. If your child needs sedation, you will have received the following or similar instructions:



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1. No milk, cereals or solid food for 6-8 hours before the scheduled procedure.
2. Breastmilk can be given up to 4 hours before the scheduled procedure.
3. Clear liquids (clear juices or water) can be given up to two hours before the procedure.
4. Please do your best to keep the child awake and not to have a nap before the scan.
This will allow the child fall asleep more easily.

If your child is an infant or toddler, please do not dress him/her in a “onesie” or one-piece undershirt on the day of the test.

You can bring along a favourite stuffed toy or blanket to comfort your child during the scan.