

# Fact Sheet

## Echocardiogram



### What is an echocardiogram?

An echocardiogram is a study performed using a specialised machine. It uses high frequency sound waves (ultrasound) reflected from various structures in and around the heart to provide information about both the structure and function of the heart. The study plays a very important role in ruling out abnormalities or following heart conditions in children.

### How is an echocardiogram performed?

The study is completely painless. A physician or technician uses a hand held transducer (like a "camera lens") to transmit and receive sound waves (which are outside the normal hearing range). The transducer is placed in contact with the body in various positions to allow all parts of the heart to be seen. A thick gel (jelly) is used to assist transmission of the sound waves and improve picture quality. A highly sophisticated computer provides images on a video screen and processes the information received by the transducer.

These images also have sounds or colour (Doppler) which help to assess patterns of blood flow in the circulation. Sometimes to help obtain special information small ECG electrodes and special microphones may also be rested on the body. The operator will also ask your child to change position from time to time to

help see certain areas of the heart better.

### How can you help?

It is important for your child to lie still during the study. We encourage parents to stay close to their young children to give comfort and offer a bottle, snack or a dummy when appropriate. Sometimes, despite our best efforts, infants will not lie still. If this is the case, it may be necessary to give some sedation (especially between the ages of three months and two years).

### Sedation

If sedation is required it may be given in a number of ways. These include by nasal spray or oral medication. These medications produce sleepiness and depending on the response of your child, a period of observation after sedation may be required. The supervising sonographer will discuss the details with you.

### Are there risks?

There are no known harmful effects of ultrasound used for echocardiography.

### Results

It may take a little time for final results to be produced after the study. In general you should return to the doctor who referred your child for the echocardiogram to obtain the results. This is important since the results often need to be interpreted in the light of other tests or clinical information.

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### Questions

Please ask and we will try to answer them. This may be difficult during the study when the operator may need to concentrate on getting all the information necessary, so please be patient with us.

### Remember

- It is important for your child to lie still during the study.
- You should speak to your referring doctor for the results.

This fact sheet is for education purposes only.  
Please consult with your doctor or other health professional  
to make sure this information is right for your child.

*This document was reviewed on Thursday, 4 May 2006.*

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