



# Children's Heart Center of Central Oregon

**Fetal, Pediatric and Adult Congenital Cardiology**

**Welcome to the Children's Heart Center of Central Oregon**

Thank you for allowing us this opportunity to introduce and explain our patient care services.

We provide cardiac care for infants and children and also for adults with congenital heart disease. We also provide fetal cardiac evaluation.

Many insurance companies require a referral to see a specialist. If your insurance company requires a referral, please contact your Primary Care Physician.

If your child has had any prior cardiac testing, evaluations or hospitalizations, please sign the medical record release(s) found on our website and send them to the appropriate doctors or medical facilities.

You may reach the Children's Heart Center at 541-639-8333 Monday through Friday, 8 AM to 5 PM. Our website is [www.kidsheartco.com](http://www.kidsheartco.com).

Please review the following brief descriptions of cardiac testing that may be included in your child's appointment.

## **Electrocardiogram (EKG)**

An electrocardiogram or "EKG" is a simple and painless test that records the changes in the electrical activity of the heart on graph paper. An electrocardiogram helps identify heart rhythm abnormalities. It can also tell about the size or thickness of the heart chambers.

The EKG is performed by placing 10 stickers called electrodes to the chest, shoulders, and legs. A wire will then be attached to each electrode. After the patient is very still and relaxed, the technician will press a button on the EKG machine and the recording will be done. The recording generally takes less than a minute. The most uncomfortable part of the process is removing the electrodes, which are less sticky than most adhesive bandages.

## **Echocardiogram (Echo)**

An echo is a type of ultrasound test that uses sound waves for viewing the heart. It is a safe and painless procedure that helps doctors diagnose heart problems. Pictures of the child's heart are taken

using a transducer and some gel that are placed on the child's abdomen and chest. The pictures are viewed on a small monitor while the procedure is being performed. It is a non-invasive test.

Pediatric cardiac sonographers are trained to complete scans in as pain-free and patient-sensitive manner as possible. The exam room is equipped with a television and DVD player to keep a child entertained. Occasionally a child may feel some discomfort from pressure from the transducer; however, this varies from child to child.

The sounds you may hear from the echo machine are the sounds of the blood flowing from one chamber to another and the valves opening or closing as the blood goes through the heart. The colors you see on the screen are not the colors of the blood in the heart. The colors tell us what direction the blood is flowing.

Echocardiograms are generally the best tests to demonstrate the structure of the components of the heart. The echocardiogram is used for measuring the size and thickness of the heart chambers, how the heart is handling the pumping of blood through the chambers, and blood flow through the heart valves. The echocardiogram can detect abnormalities of the heart such as holes in the heart or narrowing or leaking of the valves.

Better quality pictures and more accurate information may be obtained from the echocardiogram if the child can be still during the test. If a child is 3 years old or younger, he/she may require sedation for the echocardiogram.

## **Stress Test**

A stress test, or exercise test, shows how the heart adjusts to different levels of physical activity. The test is done while running or walking on a treadmill. The child's EKG is monitored during the test, and blood pressure measurements are taken. In most cases, children are encouraged to run on the treadmill to their highest possible level of exertion. Exercise testing can be performed in children as young as 5 years old.

In some cases, for example to detect exercise-induced asthma, spirometry (testing of lung function, or pulmonary function testing) is done before and after the exercise test. Spirometry involves taking a deep breath and blowing air out into a tube. This test can be difficult to perform accurately, and usually cannot be done successfully under 8 years of age.

To prepare for a stress test, your child should eat a light meal, and should wear comfortable clothing and shoes that are comfortable to run in.