

Transesophageal Echocardiogram (TEE) for You or Your Child

What is a TEE, and why does my child need it?

A **transesophageal echocardiogram (TEE)** uses ultrasound to assess your child's heart. This test uses a **transducer**, a device that puts out high-frequency sound waves. As the sound waves bounce (or "echo") off heart structures, the waves are shown as images on a monitor.

In a standard echocardiogram, a technician moves the transducer across the chest. In a TEE test, the transducer is guided down your child's esophagus until it rests directly behind the heart. The sound waves do not have to pass through skin, muscle, or bone. This means the TEE can provide better images than a standard test.

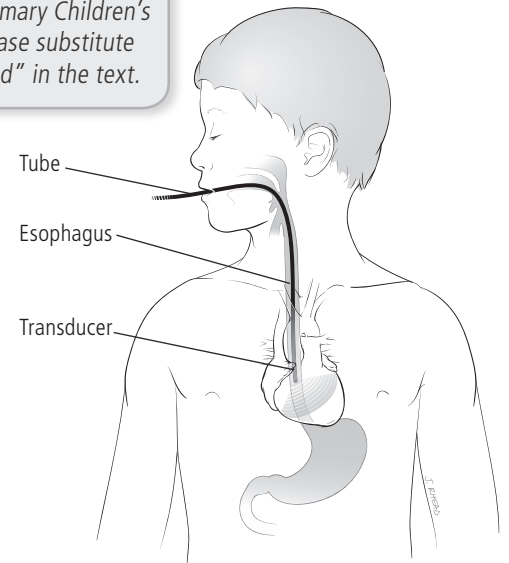
A TEE can show detailed information:

- The size and structure of the heart chambers
- The path of blood flow in congenital heart defects (heart defects that are present at birth)
- The amount of blood the heart can pump
- The condition of heart valves and blood vessels
- The presence of blood clots or tumors in the heart

A TEE might be recommended if:

- A standard echocardiogram can't be done, or it produced poor images when it was done
- Highly detailed information is needed
- Your child is having open heart surgery or a cardiac cath procedure — the TEE can help to guide the procedure and show its effects

Note: if you are an adult having this procedure at Primary Children's Medical Center, please substitute "you" for "your child" in the text.



A small tube is guided down your child's esophagus until it's behind the heart. A device called a transducer is at the end of the tube. The transducer makes images of the heart.

How should we prepare?

- **Make sure your child does not eat or drink** for about 6 hours before the procedure, as directed by the doctor.
- **Tell your child's doctor about medications** your child takes, including over-the-counter drugs and supplements. Bring a list of medications to the hospital.
- **Tell the doctor if your child is allergic** to local anesthetics, latex, or any medications.
- **Tell the doctor if your child has trouble swallowing, trouble breathing, or esophagus problems** such as bleeding or esophagus strictures (narrow, tight areas in the esophagus).
- **Arrange for a ride.** Someone needs to be available to drive your child to and from the hospital.

What happens on the day of the test?

- **Registering:** You'll fill out some paperwork, including an informed consent form.
- **Preparing:** Your child will enter a room with a special exam table and ultrasound equipment. Your child will be asked to remove clothing above the waist, put on a gown, and lie on their side or back on the bed. Electrodes will be attached to your child's chest.
- **Medication and monitoring:** IV (intravenous) medication will be used to help your child relax. Healthcare providers will place a blood pressure cuff on your child's arm and a clip on the finger, so the team can monitor vital signs. Your child will also have oxygen during the procedure, if needed.

What happens during the test?

- **Anesthesia or sedation:** Depending on the situation, the team will provide general anesthesia (medication to make your child sleep deeply) or sedation (medication to relax your child).
- **Anesthetic:** Your child's throat may be numbed with medication, using a throat spray, gel, or liquid.
- **Bite guard:** Your child will be given a bite block to protect the teeth during the procedure.
- **Endoscope:** The doctor will move a small, flexible tube, called an endoscope, down your child's throat and into the esophagus. It may help to remember that the tube is no larger than most food your child might swallow.

- **Images:** The doctor will use the transducer to take ultrasound images of your child's heart. This usually takes 10 to 45 minutes.

What happens after the test?

- At the end of the test, healthcare providers will remove the probe and IV. They will continue to monitor your child until the sedative wears off.
- Your child will be moved to the hospital floor or the patient treatment room for recovery.
- Your child will need to wait to eat or drink until the feeling comes back in their throat, usually 1 to 2 hours. Start with liquids and soft foods such as gelatin, pudding, or soup.
- Your child may feel weak or tired for the rest of the day. Be careful as your child walks or climbs stairs.
- Your child might have a sore throat for a few days after the test. It may help to have your child gargle with warm water or use cough drops.
- Your child's doctor will tell you about the test results.

When should I call the doctor?

Contact your child's cardiologist if your child has any of the following after the test:

- Pain or bleeding
- Trouble swallowing more than 4 hours afterward
- Any other symptom that is not normal for your child

Talking with your child's doctor about the TEE test

The table below lists the most common potential benefits, risks, and alternatives for the TEE test. Other benefits and risks may apply in your child's unique medical situation. Talking with your healthcare provider is the most important part of learning about these risks and benefits. If you have questions, be sure to ask them.

Potential benefits	Risks and potential complications	Alternatives
A TEE test can help your child's doctor see structures that may not show up on other tests or on a regular echocardiogram.	<ul style="list-style-type: none"> • There's a slight chance your child may have a reaction to sedatives. • Many people do not find the TEE uncomfortable, but the transducer can sometimes cause nausea, mouth discomfort, or throat discomfort. • Though very rare, it is possible for the transducer to injure your child's esophagus. This may cause infection or bleeding. 	<p>The TEE test gives a more detailed view of certain heart problems than other tests. Other common tests include:</p> <ul style="list-style-type: none"> • Standard echocardiogram • Exercise stress test • EKG or Holter monitor testing • CT scan, MRI, or nuclear test