Intermountain® Healthcare

Transesophageal Echocardiogram (TEE)

What is a TEE?

A **transesophageal echocardiogram (TEE)** uses ultrasound technology to assess the condition of your heart. It uses a device called a **transducer** to send high-frequency sound waves through your chest. As the waves bounce (or "echo") off structures in the heart, the sound waves are translated into images on a monitor.

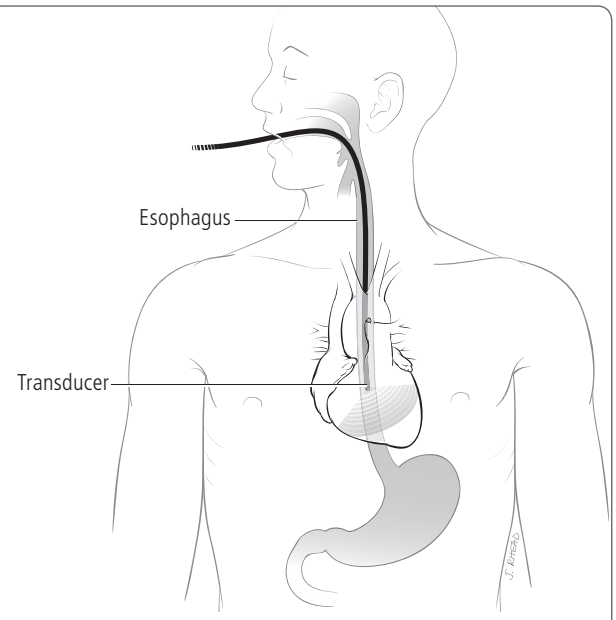
In a standard echocardiogram, a technician moves the transducer across your chest. With a TEE, the transducer is guided into your esophagus until it rests directly behind your heart. From this vantage point, the sound waves do not have to pass through skin, muscle, or bone. This means the TEE can provide better images than the standard test.

Why do I need it?

A TEE can show detailed information about the heart, including the:

- Size and structure of the heart chambers, and any structural problems such as an opening in a chamber wall
- Amount of blood the heart can pump
- Structure and movement of heart valves, or the condition of an implanted artificial valve
- Condition of blood vessels
- Presence of blood clots or tumors in the heart

Your doctor may recommend a TEE if a standard echocardiogram is not possible, if highly detailed information is needed, or if the standard test produced poor images. A TEE is also sometimes used during open heart surgery or a cardiac catheterization procedure.



The transducer is guided into your esophagus until it rests behind your heart. It sends sound waves to create images of your heart.

Talking with your doctor about the TEE

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

Potential benefits	Risks and potential complications	Alternatives
• A TEE test can help your doctor see structures that may not show up on other tests or on a regular echocardiogram.	• There's a slight chance you may have a reaction to sedatives. • Many people do not find the TEE an uncomfortable procedure. However, the transducer can sometimes cause nausea or mouth/throat discomfort. • Though very rare, there is potential for the transducer to injure your esophagus. This may cause infection or bleeding.	The TEE offers a more detailed view of certain heart problems than other tests. Other common heart tests include: • Standard echocardiogram • Exercise stress test • EKG or Holter monitor testing • CT scan, MRI, or nuclear test

How do I prepare?

To prepare for the TEE you should:

- **Avoid eating or drinking** for approximately 6 hours before the procedure, as directed by your doctor.
- **Arrange for a ride** to and from the test, since you cannot drive yourself home afterward.
- **Tell your doctor about medications** you are taking, including over-the-counter drugs and herbal supplements. Also, bring a list of your medications to the hospital.
- **Tell your doctor if you are allergic** to local anesthetics, latex, or any medications.

What happens before the TEE?

Here's what happens when you arrive for the test:

- **Registering:** You'll fill out some paperwork, including an informed consent form.
- **Preparing:** You'll enter a room with a special exam table and ultrasound equipment. You will be asked to remove jewelry and take out dentures if you wear them. You will also remove clothing above the waist, and put on a gown. You will lie on your side or back on the bed, and electrodes will be attached to your chest.
- **Medication and monitoring:** You will receive IV (intravenous) medication to help you relax. A cuff will be placed on your arm and a clip will be attached to your finger, so your healthcare providers can monitor your blood pressure and pulse. You will also receive oxygen during the procedure.

What happens during?

- **Anesthetic:** Your throat will be numbed with medication, using a throat spray, gel, or liquid.
- **Bite guard:** You will be given a bite block to protect your teeth during the procedure.
- **Endoscope:** The doctor will move a small, flexible tube, called an endoscope, down your throat and into your esophagus. You'll be asked to swallow to help it go down. You may gag a bit, but this is normal. It may help to remember that the tube is no larger than most food you might swallow.
- **Images:** The probe has a tiny transducer at the end. The doctor will use the transducer to take ultrasound images of your heart. This usually takes 10 to 45 minutes.

What happens after?

- At the end of the test, the probe and IV will be removed. Healthcare providers will continue to monitor you until the sedative wears off.
- You will need to wait to eat or drink until the feeling comes back in your throat, usually 1 to 2 hours. Start with liquids and soft foods such as gelatin, pudding, or soup.
- You may feel weak or tired for the rest of the day — be careful as you walk or climb stairs.
- You will be told not to drive, operate hazardous machinery, return to work, or make any important decisions until the day after the procedure.
- You might have a sore throat for a few days after the test. Gargling with warm water or using cough drops may help.
- Your doctor will talk with you about the test results.

When should I call my doctor?

Contact your doctor if you experience any of the following after the test:

- Pain or bleeding
- Difficulty swallowing more than 1 or 2 hours after the test
- Any other symptom that is not normal for you

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