

TRANSOESOPHAGEAL ECHOCARDIOGRAM (TOE)

What is a TOE?

An Echocardiogram is a test that uses ultrasound (rapidly moving sound waves) to obtain pictures of the heart valves and study blood flow through the heart. This test is usually done by applying a probe (a small bar that emits sound) to the front of the chest, but sometimes this does not give enough detail of some parts of the heart. TOE is done by passing a miniature probe through the mouth into the food pipe (the oesophagus). The heart lies immediately in front of the food pipe and it gives a close and clear view of the heart.

Are there any risks?

Ultrasound has been used for over 30 years to study various parts of the body. TOE is a relatively safe test that has been performed since 1990. The probe is passed very carefully into the food-pipe after numbing the throat with a spray. There is a very small risk of damage to the food-pipe. Sometimes the heart rhythm may become irregular therefore the heart rhythm and oxygen level in the blood are constantly monitored during the test. Most patients are given an injection to relax them before the test.

A plastic cannula is inserted into the arm before the study through which a sedative injection can be given. For patients who require a test to check the direction of blood flow through the heart the Doctor will inject salt water, which has tiny bubbles in it, this will show up on the ultrasound as they reach the heart. This is harmless.

The plastic cannula will be removed after the test.

What preparation is needed for a TOE?

It is important that you do not have anything to eat or drink for at least six hours before the test. Continue to take all your normal medication (including warfarin) unless instructed otherwise. If the test is scheduled in the morning, and you need to take your usual medication, take them with just a small sip of water. Please bring with you a list of your current medications, your dressing gown, and slippers. Most patients prefer to be sedated for the procedure, so you will need to be accompanied by an adult who can escort you and drive you home, and stay overnight. If you live alone and have no family or friends to care for you, arrangements can be made for you to stay overnight in the Diagnostic Day Unit. If you are staying overnight, please bring all your medications and overnight requirements.

What does the test involve?

When you arrive at the Diagnostic Day Unit (DDU), you will be shown to your chair/trolley space for the day where the procedure will be explained to you. Your blood pressure, pulse, and blood oxygen levels will be taken. A plastic cannula will be inserted into an arm vein for the doctor to administer the sedation and other necessary injections.

The nurse will also explain the 'declaration to sedation advice' sheet, which includes instructions you should follow for 24 hours after the procedure. Once you have read the form and understood the advice, you will be asked to sign it, and the details will state that for the next 24 hours you are advised not to:

- drive any vehicle, operate machinery, or undertake work involving danger to yourself or others
- use gas or electrical appliances.
- travel home alone, use public transport, or be alone in the house
- make important decisions or sign important documents
- consume alcohol, sleeping drugs or tranquillisers, unless specifically prescribed.

The doctor will explain the procedure to you and ask you to sign a consent form to confirm that you have understood and agree to have this test after the potential risks have been explained. You should inform the doctor if you have dental crowns or ever had surgery to your throat or neck, if you have difficulty swallowing food or have ever coughed up a quantity of blood. This information will guide the Doctor to perform the test safely.

You will put on a hospital gown with your own dressing gown and slippers and lie on your trolley. Any dentures will be removed and your throat will be sprayed with local anaesthetic to make it numb. You will then be transferred to the procedure room, situated on the ward, where the test will take place. Your heart rhythm and blood oxygen levels will be continuously monitored and you will be given a little oxygen through your nose. A protective guard will be placed between your front teeth and you will be asked to swallow as the doctor inserts the probe. This may be unpleasant, but should not be painful. Most people prefer to be given a sedative injection (not a general anaesthetic), which will make you feel very sleepy but you should still be able to hear the nurse talking to you throughout the test. The test takes about 10-15 minutes.

After the examination

Most patients will feel sleepy after the test because of the sedative injection. You will need to stay in hospital for two - three hours for observation until fully recovered. Your blood pressure, pulse, and oxygen saturations will be monitored and oxygen therapy maintained for one hour. Because the throat will have been numbed, you will be allowed a cold drink only after 30 minutes and a hot drink and sandwich after 90 minutes.

The doctor who performed the test will come to see you and explain your results and further treatment, if required. Once you are fully recovered the cannula will be removed from your arm, you will be able

to get dressed, and the nurse will let you know the time when you can go home. You must remember to adhere to the sedation instructions explained and signed by you on admission.

If you have had no sedation, you can have a mouth rinse, get dressed, and go home immediately after you have seen the Doctor and been informed of your results. As agreed you must be accompanied by another adult.

A report of the findings will be sent to the doctor who requested the test.

Contact details

The Diagnostic Day Unit (DDU) is currently closed on Mondays and is open from 7.00 am to 7.00 pm on Tuesdays. It is open 24 hours on Wednesday and Thursday and closes at 3.00 pm on Fridays. The telephone number is (01302) 553196.