

Transoesophageal Echocardiogram (TOE)

What is a Transoesophageal Echocardiogram (TOE)?

A TOE is a procedure which allows us to look at live images of your heart in action. An endoscope (a fine, flexible tube) is passed through the mouth into the oesophagus (or gullet) with the help of local anaesthetic. A probe at the tip of the endoscope transmits images which the Cardiologist (heart doctor) can interpret. A TOE is performed using light sedation, and can therefore usually be done as a day case.

Why am I having a TOE?

The purpose of this investigation is to allow your doctor to have a clearer view of your heart than a routine Transthoracic Echocardiogram (TTE) can provide. It will assist your doctor in diagnosing your heart problem, if any, and enable you to have the most effective treatment. Because a TOE gives a very detailed picture, it is particularly helpful in assessing damage or infection of heart valves.

It is likely that you may have already had a Transthoracic Echocardiogram whereby the ultrasound probe is placed on the chest. A TOE assesses the heart in a very similar way but as the probe is closer to the heart, the images tend to be clearer and detailed.

How should I prepare for the procedure?

Before the TOE we ask that **you should not eat or drink anything for at least 6 hours prior to your appointment time**. However, you should take all your usual medication with sips of water, unless otherwise instructed.

If you are diabetic, we will provide you with additional instructions.

The full effects of the sedation can take up to 24 hours to wear off. Therefore it is **essential that you have somebody to collect you and be at home with you overnight**. You will be unable to drive. Please ensure that you bring the details of the person who will be collecting and staying with you when you arrive for your procedure.

How is it done?

The TOE is a day procedure and performed by a cardiologist and assisted by a physiologist. A nurse will also be present to administer medications, monitor blood pressure, heart rate and support you through the procedure and recovery.

You will be asked to sign a consent form once you understand the procedure and in agreement to proceed with the procedure.

You will be asked to put on a hospital gown and a cannula will be inserted into your hand or arm so that medication can be administered. The back of your throat will also be sprayed with a local anaesthetic.

Light sedation will be administered through the cannula to help you relax. In special circumstances a TOE may be performed without sedation. If this were to happen, the procedure is still safe and the reasons would be discussed with you in detail.

What will happen to me during the procedure?

You will be escorted from the waiting area to the procedure room by the nurse, where you will be asked to sit upright on a trolley. The technician will place three electrodes on your shoulders or back to monitor your heartbeat (ECG). A clip will be placed on your finger so that your pulse and oxygen levels can be monitored throughout the procedure. If you have any dentures or plates we will ask you to remove them at this point and keep them safe with the rest of your belongings. To help you swallow the probe, the back of your throat will be sprayed with local anaesthetic. This can taste a little unpleasant. We will ask you to turn onto your left hand side. If you find this difficult please let the nurse know and the staff will assist you. A mouthguard will be put in place to help protect both you and the probe. A small sponge will be placed just inside your nostril so that oxygen can be given to support you. A sedative is then injected via the cannula in your hand or arm. This will make you feel drowsy, relaxed and will reduce your awareness of time. The doctor will then pass the probe. This may make you gag, briefly, but you may not be aware of it at all. The nurse will keep you safe by suctioning or wiping any secretions away from your nose and mouth, while you relax.

How long does it take?

The procedure itself will take only 10 to 15 minutes and sedation will reduce your awareness of this time. However, following sedation you need to be monitored for approximately an hour before you can safely go home. You should expect to be in the Department for between 2 to 3 hours so that we can admit you safely and observe you afterwards.

What happens after the procedure?

As soon as your TOE is finished, you will be transferred to the recovery area where a nurse will monitor you for the next hour. You will be unable to drink anything safely until all the local anaesthetic has worn off. After your TOE, your throat may feel slightly sore. After about an hour, when you are feeling more alert, you may test your swallow with sips of water, and then begin to eat and drink as normal.

A nurse will give you written discharge advice and contact numbers, and will contact the person who is going to accompany you home.

When will I know the results of my TOE?

The doctor will discuss the results of the test with you when you have had the chance to wake up properly. We prefer to do this once you have someone with you, as sedation can make it difficult for you to remember things.

What happens after I have been discharged?

Because of the effects of sedation, you must have a responsible adult to collect you following your procedure.

You should not be left alone for at least 12 hours after your return home. For 24 hours after sedation you must not drive a vehicle, operate machinery, drink alcohol, look after children on your own, or sign anything legally binding.

We recommend that you take it easy and do not go to work the day after the procedure.

Are there any risks or complications with TOE?

Serious complications are uncommon, but as with any invasive procedure, there are some risks involved, including:

- Bleeding
- Perforation of the oesophagus
- Allergic reaction to medication given
- Chest infection
- Damage to teeth and gums

The nurses will observe you closely for any problems

What if I feel unwell after I have been discharged?

Following the procedure, you may experience a sore throat. This should settle within 24-48 hours and can be eased by taking paracetamol. If you are at all concerned, or develop a fever, pain in the chest, vomit blood or pass black stools, you should contact your GP or attend the Emergency Department.

For further information, please try the British Heart Foundation website:

<https://www.bhf.org.uk/information-support/tests/echocardiogram>