

**Patient
Information**

Transoesophageal Echocardiography (TOE)

Introduction

This leaflet gives you information about your planned Transoesophageal Echocardiogram (TOE).

What is Transoesophageal Echocardiography (TOE)?

TOE is a test used to assess the function of the heart and heart valves. It works using ultrasound waves (the same technology as scans performed on pregnant women to look at the foetus). The examination allows us to scan the heart and produce moving pictures of the heart as it beats as well as showing the blood flow through the heart valves.

You may have already had a Transthoracic Echocardiogram (TTE) performed. This is where an echocardiography technician places a transducer (a special ultrasound probe) on your chest after applying some gel. The transducer is moved around on your chest to get the preferred images. During the scan you may hear whooshing noises; this represents the blood flow in your heart.

TOE is similar to TTE in that we use a transducer and ultrasound waves to produce the images. The difference is where the transducer is placed. To perform TOE, you are asked to swallow the transducer so that it sits inside your gullet (oesophagus), behind the heart. This reduces interference and produces a much clearer and more detailed image of the heart.

The images of the beating heart are transmitted to a monitor (screen) for the doctor to see if the heart muscle is contracting properly and the heart valves are working normally. Other heart problems may also be identified.

The TOE examination usually takes between 20 and 40 minutes.

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Department

Cardiology

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May 2026

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Throat spray and sedation

As already stated, TOE involves swallowing the transducer so that it sits inside your oesophagus. We will spray local anaesthetic to the back of your throat to numb the area.

You may also be offered sedation for the TOE examination; this will be given intravenously (into a vein in your arm).

If you are considering sedation, you will be asked to confirm that you have a responsible adult to escort you home when you are ready for discharge. You must also have a responsible adult with you at home for 24 hours following the procedure.

Where and when is TOE performed?

Your TOE will be performed as a day case at either Cheltenham General Hospital or Gloucestershire Royal Hospital. Your appointment letter will tell you where to go and what time to arrive.

On the day of your examination

Do not eat or drink anything (including chewing-gum) from midnight of the night before your appointment. If you need to take tablets in the morning, you may take them with a small sip of water.

If you are currently taking warfarin, **you must have an INR blood test within the week before your TOE appointment.** If you cannot book an INR appointment, please telephone Cardiac Investigations, the number is at the end of this leaflet.

Please tell the nurse when you arrive at hospital if you are taking warfarin or any other anticoagulant (blood thinner) medication.

If you have diabetes, please **do not take any of your diabetic medication (insulin or tablets) on the morning of your procedure.** Take your other (non-diabetes) medications as normal. Bring your diabetes medication with you and inform the nurse on admission that you are diabetic. Your medication will be re-started after the procedure.

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When you come into hospital for the TOE, a nurse or doctor will discuss the procedure with you and ask questions about your health. You will have a cannula (thin plastic tube/drip) inserted into one of the veins in your arm.

We will then ask you to sign a consent form. By signing this form, you will have agreed to have the test performed and that you understand why it is needed. This does not take away your right to have the test stopped at any time.

If you have any allergies or have had bad reactions to any medication or other tests, please tell the nurse and/or doctor.

You must also tell the staff if you have:

- had surgery to the throat, neck or oesophagus
- had any other procedures on your oesophagus
- indigestion type symptoms
- difficulty in swallowing food
- ever coughed or vomited blood
- any false teeth, loose teeth, crowns or caps

This is because it may be necessary (at another time) to examine your throat, oesophagus and stomach more closely to check that there are no problems.

What to bring into hospital?

Please bring the following:

- A list of any medication you are currently taking
- Your reading glasses
- A book or magazine

Please do not wear any jewellery, make-up or nail varnish when you come for this appointment. Do not bring any valuables with you, as we cannot take responsibility for any losses.

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Information****What will happen during the test?**

- You will be taken to the procedure room and will be asked to lie on a trolley.
- A probe will be placed on your finger to measure your pulse and oxygen levels.
- A cuff will be placed on your arm to measure your blood pressure.
- 3 ECG pads, attached by wires to the echo machine, will be put onto your chest or back. This allows your heart rhythm to be monitored during the procedure.
- You will be given a small amount of oxygen to breathe via prongs placed up your nose.
- Before we start the TOE, you will be asked to confirm your identity and we will make some safety checks.
- You will be asked to open your mouth wide, then the doctor will spray local anaesthetic to the back of your throat to numb the area.
- To protect your teeth and the transducer, a small plastic mouth guard will be put into your mouth and gently secured around your head with a strap. This will not interfere with your breathing.
- You will be asked to lie on your left side on the trolley and you will be made as comfortable as possible.
- Once you are comfortable, we will turn the lights down.
- Sedation may be given at this point through the cannula (drip). If you are considering sedation, you will be asked to confirm that you have a responsible adult to escort you home when you are ready for discharge. You must also have a responsible adult with you at home for 24 hours following the procedure.
- Sedation will make you lightly drowsy and relaxed, but not unconscious (asleep). You will be in a state called conscious sedation and although drowsy you will still hear what is said to you and therefore will be able to follow simple instructions during the procedure.
- The probe will be passed into your mouth, over your tongue and the doctor will ask you to swallow. This helps the probe pass smoothly into your oesophagus.

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- A nurse will monitor your blood pressure, pulse and oxygen levels throughout the TOE.
- When the examination is finished, the transducer is removed quickly and easily.

What should I expect after the test?

After the TOE, you will be taken to a recovery area. A nurse will check on you regularly.

Because the anaesthetic throat spray can affect your swallowing reflex, you will not be given anything to eat or drink for an **hour** after the procedure. After an hour, you will be given some cold water to drink. The nurse will decide when you are ready to go home.

Risks

TOE is a safe procedure and complications are rare. The risks will be explained to you in detail before you sign the consent form but they include causing a perforation or a tear to the wall of the oesophagus and bleeding.

There is a small increased risk of damage to crowned teeth or dental bridgework when the transducer is put into the mouth.

Due to the transducer being passed down your throat, it is common to have a sore throat following the procedure.

As mentioned, a nurse will be closely monitoring you throughout the procedure and if there is any cause for concern, the procedure will be stopped immediately.

Going home

- For the rest of the day, eat and drink only cold/warm (not hot) food and fluids and eat only a light meal.
- We recommend that you rest and relax for the rest of the day.
- If you have not received sedation, you will be able to go home about 1¼ hours after your appointment time.

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- If you have been given sedation, you will be able to go home within about 2½ hours.
- If you have been given sedation, it is essential that someone comes to collect you from the hospital and that you have a responsible person to stay with you overnight.
- You must not **drive, sign legal documents, operate machinery or drink alcohol** for 24 hours following sedation.
- You should also not to return to work for 24 hours after being given sedation.

Results

The results of your TOE examination will usually be sent to the doctor who referred you for TOE. You may also be told the results after the procedure but if you have had sedation, you may not remember them fully.

Contact information

If you have any questions or concerns about this procedure, please contact Cardiac Investigations.

Cardiac Investigations

Tel: 0300 422 6551

Monday to Friday, 9:00 am to 4:00 pm

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Making a choice

Shared Decision Making

If you are asked to make a choice, you may have lots of questions that you want to ask. You may also want to talk over your options with your family or friends. It can help to write a list of the questions you want answered and take it to your appointment.



Ask 3 Questions

To begin with, try to make sure you get the answers to three key questions if you are asked to make a choice about your healthcare.

1. What are my options?
2. What are the pros and cons of each option for me?
3. How do I get support to help me make a decision that is right for me?

These resources have been adapted with kind permission from the MAGIC Programme, supported by the Health Foundation

* Ask 3 Questions is based on Shepherd HL, et al. Three questions that patients can ask to improve the quality of information physicians give about treatment options: A cross-over trial. Patient Education and Counselling, 2011;84:379-85



<https://aqua.nhs.uk/resources/shared-decision-making-case-studies/>