

# Exercise Tolerance Test (ETT)

Information and advice for patients

## Cardiology Diagnostics

### What is an Exercise Tolerance Test (ETT)?

An Exercise Tolerance Test is sometimes called an Exercise ECG or Stress Test. Your heart beat (ECG) and blood pressure (BP) will be recorded and analysed using an ECG and BP machine whilst you walk on a treadmill, in order to monitor your heart's response to exercise.

### What are the benefits of this test?

An exercise tolerance test can provide the doctor with important information regarding the circulation of blood to the heart muscle during physical activity, since it cannot always be detected on a resting 12 lead ECG test. It may also be performed to assess your heart rhythm during symptoms, to monitor changes to new medication, or for the purposes of certain vehicle licences for the DVLA.

### What are the risks of the test?

The risk of doing this test is no different to doing unmonitored exercise. However, due to the nature of the test and the monitoring that will be done the environment is much safer.

### What are the risks of not having the test?

If you choose not to have the exercise tolerance test this may delay your doctor finding out what is causing your symptoms and starting treatment.

### Preparing for the test

For ease of walking on the treadmill, we recommend that you wear comfortable clothing and trainers or flat shoes. We also recommend a loose sleeved top to allow a blood pressure cuff to be fitted around your upper arm. We will need to attach some ECG electrodes to your torso, so please do not use body cream or oil as the electrodes will not stick to your skin.

You may eat a light breakfast if you are attending your test in a morning. In the case of an afternoon appointment, have your breakfast as normal, and you may have a light lunch. You may feel faint during the test if you do not eat. Please do not smoke or drink any caffeine drinks (e.g. tea, coffee, cola) for at least an hour before the test as your results could be affected. Please follow the instructions on the front page of this letter with regards to your medicines, and bring all your medication along to the test.

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### During the test



Two specially trained cardiology staff (they maybe male or female) will be present during your test. Firstly, they will ask you to undress to the waist, and then ask you to lie on a couch. They will then record a resting 12 lead ECG- a recording of the electrical activity of your heart. For this, they will rub small patches of skin on your chest with an alcohol wipe and an abrasive pad in order to ensure small sticky tabs called electrodes will stick to your skin for the duration of the test. Please do not use body cream or oil as the electrodes will not stick to your skin. Gentlemen may need small areas of their chest shaved for the same reason.

ECG cables from the exercise test machine will be connected to the electrodes on your skin. The machine will record/measure very small electrical signals from the heart and interpret them into graphical form on a print-out. Your chest will be covered for your dignity and then you will be asked to relax completely. Moving or tensing your muscles can interfere with the recording making it difficult to interpret. Once you are relaxed, a recording of your heart rhythm (ECG) will be taken. You will not feel anything during this time. Your blood pressure will be taken too.

You will then be asked to walk on the treadmill (a small ramp that has a moving belt on which you walk). The staff will assist you, and demonstrate how to walk on the treadmill if you require.

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The first stage is a slow walking pace to enable you to get used to walking on the treadmill. The speed and inclination of the treadmill will increase in stages during the test, each stage lasting three minutes. We will be monitoring your ECG and blood pressure throughout the test. It is very important that you do as much walking as you can in order for your doctor to have all the information he needs. The more you do, the more information we obtain from you. We do have a pre-set minimal amount of walking in order to obtain useful results, and this will depend on your age. We will need to encourage you to reach this level, because if you are not able to achieve it, the test may become inconclusive, and an alternative investigation may need to be performed on another day.

The walking phase of the test will stop due to various factors, and this can be different for every patient, so it is impossible to put a time on it. We will guide you as to when your walking part of the test will be complete.

After the walking phase, we will ask you to lie on the couch and relax for a short period of time. During this time, your ECG and BP will continue to be monitored.

### What do I feel during the test?

The aim of this test is to recreate any symptoms you may have and correspond this to the ECG changes that are seen during exercise to give the doctor as much information as possible, it is important that you communicate any discomfort that you may have.

If you do not have any symptoms, the only feeling you will have is the normal physiological response to exercise. We will also watch the ECG and give all our findings to the doctor.

### After the test

When the test is complete, all the equipment will be removed, and you can dress and leave the department, water can be provided if necessary, along with paper towels, but feel free to bring any appropriate drinks with you.

### When will I get the results?

The results are not always available straight away since there is not always a doctor available at the time of the test. The results are however reported by a Cardiac Physiologist/Associate Practitioner the same day and are despatched to your requesting doctor. Once your consultant has received the report then they will decide the next appropriate appointment to see you in clinic or pass these details onto your GP.

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### Contact details

You will be able to ask any questions or tell us any concerns before the test is carried out, but if you would like to contact us before your appointment please call us on:

**Birmingham Treatment Centre Telephone: 0121 507 6295**

**Sandwell General Hospital Telephone: 0121 507 3512**

**Lines open: 9am till 4pm Monday to Friday**

For more information about our hospitals and services please see our website [www.swbh.nhs.uk](http://www.swbh.nhs.uk), follow us on Twitter @SWBHnhs and like us on Facebook [www.facebook.com/SWBHnhs](http://www.facebook.com/SWBHnhs).

### Sources used for the information in this leaflet

- The Society for Cardiological Science & Technology (SCST) (2008) *Recommendations for clinical exercise tolerance testing*. [Online]. Staffordshire: SCST. Available from: [https://www.scst.org.uk/resources/ETT\\_guidelines\\_2008.pdf](https://www.scst.org.uk/resources/ETT_guidelines_2008.pdf) [Accessed 24 January 2020].



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