

Cardio-pulmonary Exercise Testing (CPX)

Information for patients



Cardio-Respiratory
Service

This leaflet will describe the procedures for performing cardio-pulmonary exercise testing within the Cardiac Investigations Unit at Leeds General Infirmary and the Cardio-respiratory department at St James Hospital.

What is a CPX test?

A CPX test is performed to assess how your heart and lungs respond to exercise.

You will first have some basic breathing tests done. Following this, you will cycle on a bike or walk on a treadmill.

We look at your heart with an ECG (stickers on your chest), blood pressure with a cuff on your arm, blood oxygen with clip on your finger and breathing with a mouthpiece or facemask.

Why am I having this test?

There are a number of reasons your Doctor may request this test:

- To assess how well your body will cope with both surgery and recovery after, this test will help personalize your care
- To investigate a cause for shortness of breath
- As a baseline measure of fitness and assess changes for the future
- If you have a known heart condition assess cause of exercise limitation and inform prognosis

How long will the test take?

Please allow approximately 45-60 minutes for the test (you won't be cycling for all this time!)

How is the test performed?

You will be called into the exercise laboratory by our staff members and asked to confirm your details. The staff members that perform these tests include cardiac and respiratory physiologists, associate practitioners and doctors. Usually, there will be two members of our team looking after you. Once you have confirmed your details and answered any questions, we will measure your height and weight.

Depending on the request from the doctor, we will perform the CPX test on a bicycle or treadmill. Most of our requests are for the bicycle but please refer to your appointment letter or contact the department if you have any concerns.



Bicycle protocol

You will have several minutes warm-up pedalling to get used to the bike and equipment.

You will then pedal up a hill that slowly gets steeper until you are too short of breath or legs are too tired to continue (this should take approx. 8-12 minutes). This is therefore a maximal test that you give 100% effort.

You will then have a cool down period where staff will continue monitoring you.

Treadmill protocol

During this test you will be walking on a treadmill that gets steeper and / or faster every three minutes. It starts at a slow walking speed and very slight hill and will continue to get faster and steeper as the test progresses. At some point you will need to ask to stop as you will be too short of breath or if your legs are too tired. We will then slow down the treadmill to a stop and continue to monitor you as you recover.

Do I need to prepare for this test?

Please wear clothes appropriate for exercise i.e. flat, comfortable shoes/trainers and loose clothing. Please bring a medication list with you as staff may need to check your prescription for the report.

If you have nail varnish or any false nails, please remove these before the test as it stops us from measuring your oxygen saturation levels accurately.

Please avoid:

- Smoking for 24 hours
- Vigorous exercise for at least one hour before.
- Eating a large meal for at least two hours before (small breakfast/sandwiches/snacks are fine!)

What happens to the results?

Following the test, the results will be reviewed and a report formulated. This will then be sent to the Doctor who referred you for the test. You may already have an appointment to see the Doctor, or they may wait until they receive the results before contacting you. Please note the staff performing the test will not be able to provide you with your results on the day.

Finally, if you feel you have been referred for an inappropriate test i.e. you've been sent an appointment letter for a Bicycle CPX test but due to a medical condition (e.g. arthritis) would prefer to walk on the treadmill - please let us know ASAP.

Tel: 0113 392 3306



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