

# Cardiopulmonary Exercise Testing

## Department of Anaesthetics Patient Information Leaflet

### Introduction

This leaflet is about cardiopulmonary exercise testing. It gives information about what this is, why you are having the test and what to expect when you are having the test.

### What is cardiopulmonary exercise (CPX) testing?

CPX testing is a way of assessing your general fitness, especially that of your heart and lungs. It involves pedalling an exercise bike while we monitor your heart and breathing with special equipment. We will measure how much air you breathe, how much oxygen you need and how fast and efficiently your heart beats.

## Why am I having this test?

CPX testing is very useful for assessing your fitness to undergo surgery. This helps the medical team to arrange the most appropriate care for you before, during and after any operation. It may also show us how we can help you to improve your fitness, which will in turn aid your recovery after any surgery.

## What are the risks?

**Please be reassured that the risks outlined below are minimal.**

You may experience some side effects during the test. These could include breathlessness, possible chest pain and pain in your legs. **It is important you let us know if you experience any of these symptoms during the test.** You will be monitored very closely and the test will be stopped if you feel unwell or the doctor has any other concerns.

It is possible that the test will highlight symptoms that you were unaware of. In extreme cases, we may find that the blood supply to your heart is very restricted and could lead to angina or very rarely, a heart attack or a life threatening rhythm. However, the risk of this happening is small – less than one person out of every 1,000.

## What are the alternatives to the test?

Your consultant has recommended this test to assess your fitness for surgery. There are no alternative tests available. However, there is always the option of not having the test – your consultant will discuss the risks of this with you. The consequence of not receiving the test is that a complete risk assessment/diagnosis may be difficult to obtain.

## Who will my consultation be with?

The CPX testing is directly supervised by a consultant anaesthetist. They will ask you some questions about your health before the test and be responsible for your safety during the test. You may also see a pre-assessment nurse in a separate consultation.

## **What does the test involve?**

You will be asked to undress above the waist (ladies can keep their bra on) so that we can connect some sticky leads to your chest and a blood pressure cuff on your arm to monitor your heart.

You will then pedal on an exercise bike whilst breathing in and out of a special mouthpiece or mask connected to a computer. This will monitor your lungs. You should breathe as normally as possible through the mask during the test. It will feel a little bit strange at first, as though you have a cold, but it is not uncomfortable or painful.

The length of time you pedal for will vary depending on your age and fitness but will not be more than 10 to 15 minutes. The pedalling incline (slope) will increase gradually.

Please be reassured that during the test we will be monitoring your heart rate, blood pressure and breathing to check there are no problems and that you are safe to continue.

It is important you give the test your maximum effort. You will need to let us know if you are unable to continue due to pain or breathlessness. This will be explained in more detail when you attend for the test.

Once the test is finished, you will cool down by pedalling gently for another few minutes.

## **How long does it take?**

The test will take a maximum of one hour. This includes the explanation of the test, setting up of the equipment, attaching the leads and blood pressure cuff. The exercise is only a short part of the test.

## **How fit do you need to be to perform the test?**

Many people worry that because they do not participate in regular exercise, they may not be able to complete the test. We will give you time to get used to pedalling and the information the test gives us is as applicable to athletes as to those who are elderly or unfit.

## What do I need to do to prepare for the test?

- Please wear clothing that is loose fitting and comfortable for cycling, for example, trainers and tracksuit/shorts, and flat shoes that will not slip off (not sandals or shoes with heels). You will be asked to undress above the waist so please wear clothes that are easy to remove.
- Ladies – please avoid wearing long skirts as this will make it difficult to cycle. Please wear a bra as you will need to remove your top so that we can attach the leads. Please note: because of the amount of leads to be attached you will only be able to wear a short-sleeved, loose-fitting T-shirt during the test.
- Please do not smoke or drink alcohol for at least two hours before the test.
- You should not eat a heavy meal within the two to three hours before the test. You can eat a light meal or snack up to an hour before. If the test is scheduled to start first thing in the morning, a light breakfast is probably best.
- Please try to be as well rested as possible and do not do any heavy exercise earlier on the same day.

## What about my medication?

- Please bring an up-to-date list of all your medication with you.
- It is important that you take all of your prescribed medication as normal on the day of your test.
- If you use an inhaler, please bring this with you.

## What happens on the day of the test?

You may need to reschedule the test if you feel unwell, for example, if you have a cold. If you do not feel you can give your best exercise effort, please contact the department before or on the day of the test.

## What if I have problems with my health?

Please tell the doctor about any conditions (temporary or permanent) that could affect your ability to move, cycle or keep your balance. If you are unable to walk, please notify us at the earliest opportunity as it is unlikely you will be able to perform the test.

## What happens after the test?

- You can eat and drink as usual.
- Depending on how you feel, you may go about your normal routine or take it easy if you feel tired.
- Do not take a hot shower for at least an hour after the test, as this may cause low blood pressure and dizziness.

After you leave the hospital, if you have chest pain that lasts more than 15 minutes, or if any GTN spray/tablets you have do not relieve the pain, you should dial 999.

## What happens with the results?

The anaesthetist will explain the results of the test. A detailed report will be sent to your surgeon. The medical team will use the results to inform you of your treatment options and to support you in your decision making regarding any possible surgery. A date for surgery will then be set if required.

Please contact your surgeon's secretary if you have any questions about your treatment plan.

## Nurse pre-assessment

You may also have an appointment to see a pre-assessment nurse. They will ask you some general questions about your health, and may take some blood tests. They will also inform you of any specific instructions for the day of surgery.

**If you have any questions about your overall treatment plan after the test, please contact:**

Your surgeon's secretary via the hospital switchboard

Tel: 01384 456111 and ask to be put through to them.

**If you have any questions or if there is anything you do not understand about this leaflet, please contact:**

The Anaesthetic Department

Tel: 01384 244076 and ask to speak to one of the CPET consultant anaesthetists (9am to 4pm).

**This leaflet can be made available in large print, audio version and in other languages, please call 0800 073 0510.**

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此宣传单可提供大字版本、音频版本和其它语言版本，请拨打电话：0800 073 0510。

Ulotka dostępna jest również w dużym druku, wersji audio lub w innym języku. W tym celu zadzwoń pod numer 0800 073 0510.

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Aceasta broșura poate fi pusă la dispoziție tipărită cu caractere mari, versiune audio sau în alte limbi, pentru acest lucru va rugăm sunați la 0800 073 0510.

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