

# **Respiratory Physiology**

# **Exercise tests**

#### What are exercise tests?

Your doctor or consultant has asked that you have exercise tests carried out. The tests will show how well your lungs and heart are working.

There are **four different types of exercise tests**. The test you'll do will depend on your diagnosis and symptoms.

The four different tests are:

- Cardiopulmonary exercise test
- 6-minute walk test
- Incremental shuttle walk test
- Exercise-induced bronchoconstriction

## Cardiopulmonary exercise test (CPET)

The cardiopulmonary exercise test is done on a static bicycle or treadmill. Your heart and lungs are monitored whilst you exercise to an increasing workload. Please allow an hour for the appointment. You won't be exercising for the whole hour.

## What happens during the test?

You'll do a basic breathing test to begin with. An ECG and blood pressure check will also be done by the physiologist before the exercise test. The exercise will last about 20 minutes, with different levels of exercise throughout. You'll be advised about this during the test.



## 6-minute walk test (6MWT)

This measures how far you can walk in 6 minutes. While you walk, heart rate and oxygen levels are measured using a finger or ear probe.

## What happens during the test?

You will walk around a 22-meter course in the department corridor for six minutes. The physiologist will monitor your heart rate and oxygen levels throughout.

You can stop at any point during the test and take as many rests as you need. The test time is 6 minutes, but you should allow time after to recover.

## Incremental shuttle walk test (ISWT)

This test is like the six-minute walk test, but you'll walk faster with each lap. You'll walk slowly at the beginning and increase your walking speed every minute until:

- you are no longer able to keep up with the test speed, or
- your symptoms, for example breathlessness, prevent you from walking any faster.

## What happens during the test?

You will walk around a 10-metre course to a series of bleeps. The physiologist will monitor your heart rate and oxygen levels throughout.

Every minute the test speed will increase. You'll be advised about this before you start the test. The test can take up to 15 minutes, and you should allow time for recovery.

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## **Exercise-induced bronchoconstriction (EIB)**

You'll have lung function tests before and after exercising on a treadmill. These are done to check for any changes in your airways.

Please allow 1 hour for this appointment. You won't be exercising for the whole hour.

## What happens during the test?

Before starting the exercise, you will do baseline breathing tests. Then, you will walk or run on the treadmill for 8 minutes. The physiologist will record your heart rate, oxygen levels and other measurements.

You will then do the breathing test at different times after the exercise test. The time intervals will depend on the results from the breathing test each time its performed.

## Why do exercise tests?

- Sometimes breathing problems do not appear at rest
- They can find the cause of a problem if other tests are inconclusive
- They can monitor the effectiveness of treatment
- To test a person's fitness before surgery

### What must I do before the tests?

On the day or a few days before the appointment, you need to:

- Carefully read the appointment letter to find out:
  - if you should take your medication as usual, or
  - if you should avoid taking any breathing tablets or inhalers
- Wear comfortable clothing and flat shoes
- Eat a light meal at least two hours before your appointment
- · Avoid smoking, caffeine, and alcohol on the day of the test
- On the day, do not do any exercise before your test
- Remove nail varnish/false nails
- Bring a list of any medications you're taking with you

# Will I feel any pain or discomfort during or after the tests?

You may experience shortness of breath and fatigue. You will be given the chance to rest when the tests are over.

After the CPET test, we usually advise people to relax for the rest of the day and resume normal activities the next day.

## What happens when the tests are completed?

Your test results will not be discussed at your appointment. They'll be sent to the consultant who asked for the test. The consultant will discuss the results with you at your next appointment, as they may have asked for other investigations.

# Please contact the department when you receive your appointment letter if you have experienced:

- Any musculoskeletal problems or injuries preventing you from exercising.
- Recent heart attack (in the last week)
- Uncontrolled high blood pressure
- Recent chest infection requiring antibiotics and prednisolone in the last 4 weeks.

## **More information**

If you have any questions or would like more information, please contact the Respiratory Physiology Department on 024 7696 6734.

The Trust has access to interpreting and translation services. If you need this information in another language or format, please contact 024 7696 6734 and we will do our best to meet your needs.

The Trust operates a smoke-free policy.

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#### **Document History**

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