

Ergospirometry

Why is this test done?

This test monitors heart and lung function during exercise. Ergospirometry is used to demonstrate exercise-induced asthma, to investigate what is causing shortness of breath, and to assess physical performance and the ability to work and function.

How should I prepare for the test?

What to bring:

- lightweight trousers (for example joggers or leggings) suitable for pedalling a stationary bicycle
- trainers or similar footwear
- women may wish to bring a loose-fitting T-shirt to wear during the test, as well as a sports bra or other non-underwire bra
- a list of the medications you are using.

The doctor responsible for your care will decide which medications you should use or stop using before the test. Short-acting nitrates (Dinit spray, Nitro, Nitromex) should be avoided for **two hours** before the test if possible. Please call the telephone number appended to these instructions if you have to take any of the above-mentioned medicines shortly before the test.

Heart rate and blood pressure are affected by recreational substance use, eating, and exercise. Therefore, please refrain from the following before the test:

- tobacco, snus, e-cigarette and other tobacco products for at least **two hours**
- coffee, tea, cola, and other stimulating drinks for at least **four hours**
- alcohol for at least **two days**

In addition:

- Avoid eating a heavy meal, but **do not fast**. Have a light meal about two hours before the test, such as a small sandwich with a glass of milk.
- Avoid strenuous physical activity on the day before and the day of the test, and try to get a good night's sleep.
- The test cannot be done while you have a respiratory infection or some other inflammatory condition (such as a cold, fever or sore throat), or for two weeks afterwards.

How is this test done?

First, we will measure your height and weight. We will attach adhesive electrode pads to your chest, limbs and back to record your heart tracing (electrocardiogram, ECG) during the test. Before the exercise phase, we will measure your blood pressure in both a reclining and a seated position and do some breathing tests (spirometry) to measure your lung function.

The exercise part of the test is usually done by having you pedal a bicycle under a doctor's supervision until you get tired/fatigued or have symptoms that make us stop the test. While you are exercising, we will monitor your heart tracing, measure your blood oxygen level and blood pressure, and make a note of any symptoms you have. We will evaluate your breathing by placing a mask on your face that analyses exhaled gases and measures the volume of your breaths. The pedalling is continued for an average of ten minutes.

Your breaths, heart tracing and blood pressure will be monitored for at least six more minutes during the recovery phase after you exercise. We will also complete some additional spirometry measurements after the recovery phase.

How long will the test last?

The test takes about 60 minutes.

Where can I get the test results?

The ward or clinic that is treating you will tell you about the test results.

Instruction reviewed 8.3.2024