Cardiopulmonary Exercise Testing (CPEX)
What is a CPEX test?

A Cardiopulmonary Exercise Test (CPEX, also known as CPET) is a safe exercise test used to measure your fitness. It is the best test to measure how your heart and lungs will cope with surgery. It is a short exercise test on a static bicycle (rather like exercise bikes you see in gyms). Many hospitals are offering this test as part of the pre-operative assessment and planning for surgery.

Why do I need to have this test?

We need to do this test to determine how you are likely to react to surgery. This will inform surgeons and anaesthetists how best to look after you around the time of your operation. This may reduce your risk of complications following surgery as it will also provide useful information about your potential recovery period following the operation.

What happens during the test?

Before your test begins, staff will fully explain what will happen and answer any questions you may have. The test usually lasts between 5 and 12 minutes. Staff will ask you to let them know if you feel any discomfort or pain during the test. You are free to stop if you feel fatigued or uncomfortable; but the longer you can go, the better the information we will get.

Whilst riding the cycle your breath will be analysed and your heart and blood pressure monitored. You will have some simple medical equipment attached to you so that we may take these readings. Oxygen and carbon dioxide will be measure from your breath with a specialised mask. A health professional will be with you at all times. We may ask you to stop if we see signs of fatigue or changes to your heart rate or blood pressure.

The test begins gently, with a low intensity cycle; you will feel no resistance as you pedal. Gradually the intensity of the test will increase and you will feel increased resistance to pedalling the
bike. Most people complete the test sufficiently for us to obtain the medical information we need.

After the test, you rest on the bike until you are ready to sit down and discuss the results of the test. Occasionally, with your permission, we may include your anonymised results in research to improve patient care.

Important Information

- Please continue to take all your medications as normal – or how you have been instructed by your doctor.
- Please do not wear nail varnish to your appointment.
Frequently asked questions

Will I experience any discomfort or side effects?
There are no known side effects. Cardiopulmonary exercise testing is very safe. Rarely patients experience problems with abnormal blood pressure, irregular heart rates or chest pain. The occurrence of complications during the test is actually beneficial as this identifies patients who will potentially have problems during the surgery and minimise the risk of surgery that you are exposed to. Every effort will be made to minimise any risk by evaluation of your medical information before the test and careful observation during the test.

Is there a different test I could have?
There is no other test that provides this information about your heart and lung ‘fitness’.

When will I be told the results of my test?
You will be told of the results of the test on the same day by the doctors performing the test. The information will also be shared with the doctor or surgeon who requested the test.

What if it tells me I cannot have my operation?
Sometimes the information will tell us that your body will find the stresses and strains of the operation to much. We will discuss the risks and benefits of the surgery with you and your surgeon.

I have bad joints and am worried about riding the bike?
Unless you have very severe joint pain, most people find they are able to ride the bike for the duration of the test.

How ‘fit’ do I have to be to perform the test?
People of all levels of ability, ages and fitness are able to perform the test.
I am worried or anxious about completing the test.

We understand that many patients find the idea of this test worrying for many reasons. We have excellent staff at hand to help reassure you and support you through the test process. Feel free to answer ask questions on the day. We will do our best to make you feel safe and well-cared for during your appointment.

What should I wear when I attend my test?

You should wear normal comfortable clothing and flat shoes (ideally trainers) suitable for cycling in.
NHS Constitution. Information on your rights and responsibilities. Available at www.nhs.uk/aboutnhs/constitution
How to contact us:

- 01174145114
- Helen.Pearce@nbt.nhs.uk
- Jean.Moon@nbt.nhs.uk
- Andrea.Giambarresi@nbt.nhs.uk
- Gemma.Lucas@nbt.nhs.uk
- www.nbt.nhs.uk

If you or the individual you are caring for need support reading this leaflet please ask a member of staff for advice.