The Royal Liverpool and Broadgreen University Hospitals

NHS Trust

Better Together

Patient information

Compartment Pressure Measurement Test

Trauma and Orthopaedic Directorate

Royal Liverpool Hospital and Broadgreen Hospital

PIF 1815 V2

What is Compartment Pressure Testing?

This is a special test where the pressures in the compartment (s) of the lower leg are measured in order to confirm the diagnosis of Chronic Exertional Compartment Syndrome (CECS).

What is Chronic Exertional Compartment Syndrome?

This is when pressure builds up within a group of muscles during exercise causing the onset of pain. When you exercise, more blood is pumped to the muscle and in CECS, the outer coating (fascia) is too tight and will not allow the muscle to expand. This then results in a restriction of blood flow to the muscle, which causes exercise-induced pain.

What are the benefits of having the test carried out?

The advantages are that this test is carried out as an out-patient in clinic and it is a relatively quick and simple test. The test itself takes up to an hour, depending on whether or not you require an Ultrasound scan. Results are immediate and you will be informed of these on completion of the test.

What are the risks of having compartment pressure testing?

There is a small risk of infection at the injection site. To help to reduce the risk of infection, your specialist will be carry the test out using a sterile technique and your skin will be cleansed using an alcohol swab, prior to injection administration and each compartment test. A sterile dressing is place over the injection site following each test carried out.

How is the test carried out?

The test is carried out under local anaesthetic injection to numb the skin, directly over the compartment which is going to be tested.

Local anaesthetic is drug-induced numbness: it may be provided by an anaesthetist, surgeon or other healthcare professional, depending on the technique used. Like all medicines, local anaesthetics may sometimes cause side effects, as well as the effects that are needed. You may experience dizziness, blurred vision, drowsiness and occasionally loss of consciousness.

Serious side effects are rare, and include fits, low blood pressure, slowed breathing and changes in heartbeat, which may be life-threatening. If you have any concerns about any of these effects, you should discuss them with your doctor.

Once the Local anaesthetic has been given a needle is then inserted through the numbed area of skin, which is attached to a pressure measuring device.

The needle is withdrawn once a reading has been taken and a small dressing will be applied. You will then be asked to run on a running machine for ten minutes. There is currently no other method available to carry out compartment pressure testing.

Immediately following this, a further needle pressure test and reading is taken and then one more reading after a period of rest. This allows your specialist to compare all of your readings to formulate your results. You will be informed of your result before you leave clinic and a letter will also be sent to your family doctor (GP) / the specialist who referred you in for the test.

If you have any allergies or are taking anti-coagulant medication or have a history of bleeding disorders it is important to inform your specialist before the test is carried out.

What do I have to do to prepare for the test?

You will need to either come along dressed in, or bring your running shoes and sportswear with you, as you will be expected to use a running machine for ten minutes, as part of the test. If you are coming in sports gear, you may wish to bring a change of clothes with you as you are likely to perspire during the test.

Please note, there are no shower facilities available for you to use in clinic, after your test.

Also, due to the local anaesthetic, you cannot drive home after the test and so you will need to make alternative transport arrangements.

Do I have to rest after the procedure or take time off work?

Depending on your job, you may be able to return to work after the procedure. Please discuss this with your specialist.

What should I expect after my procedure?

Following the test, you are likely to still be experiencing numbness to the skin. This will eventually wear off and you may then experience some pain and swelling which usually resolves after 24 to 48hrs. You may need to take your usually painkillers and the dressing applied after the test can be removed after 24hours. If you have any problems please consult your GP.

For further information

If you have any queries or concerns, please contact the specialist nurse.

Foot and Ankle Nurse Specialist

Tel: 0151 282 6000 and ask for bleep 4634 Text phone number: 18001 0151 282 6000

Bleep 4634

Foot and Ankle Secretaries Tel: 0151 282 6746 / 6813

Text phone number: 18001 0151 282 6746/6813

Author: Trauma and Orthopaedic Directorate

Review Date: June 2020

All Trust approved information is available on request in alternative formats, including other languages, easy read, large print, audio, Braille, moon and electronically.

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