Quantitative Sensory Testing (QST)

This information sheet from Great Ormond Street Hospital (GOSH) explains quantitative sensory testing for chronic pain and what to expect.

Sensory nerves are like wires that pass messages from the skin to the brain. Chronic pain can occur when abnormal messages are sent along pain nerves. The brain continues to interpret these messages as painful, and you may also feel altered sensations such as burning, tingling or numbness.

Quantitative Sensory Testing (often called ‘QST’) allows us to measure changes in sensitivity to different types of sensations that can include temperature, touch or pressure. It can form part of the overall assessment in the Chronic Pain Clinic. QST provides added information about changes in sensory nerves that may be associated with different types of pain.

What happens during the testing?

Before the test starts, we will make sure you are sat comfortably in a chair. We will then explain the tests to you and show you all of the equipment.

- First, we will put a temperature sensor that produces temperature changes on the skin, usually on your hand or foot. We will ask you to push a button when you start to feel changes in temperature such as cool, cold, warm or hot. We may also move small warm and cool rollers over your skin to see if there are any areas that feel more or less sensitive.

- We will also touch different nylon hairs, brushes or blunt probes on the skin and ask how they feel.

- All the tests start with very weak tests that change gradually until you feel a difference, or press the button.
Will the test hurt? Is it safe?
- The test is very safe and there are no side-effects.
- You should feel little or no discomfort during the test.
- If you are not happy, you can stop the testing at any point either by pressing your control button, or asking us to stop.
- As an extra safety measure, a computer controls the temperature and pressure tests and stops it before it becomes too strong, even if you do not press the control button.

How long will the testing take?
The appointment will take about an hour. We will also ask you some questions about where the pain is, and how it feels, before we start.

What happens next?
The results will not be available on the same day, as it takes time to analyse them. We will send a report to your Pain Doctor so we can discuss the results.

Where will the testing take place?
A trained member of the Pain Management Team will carry out the QST in the Walrus Clinical Investigations Centre at GOSH. We will contact you to discuss a suitable date and time, and send you an appointment letter.

Directions:
Walrus Clinical Investigations Centre, Level 1, Morgan Stanley Clinical Building, GOSH. Follow the signs to “Lung Function” and press the buzzer for entry. You will be met either at the door, or in the waiting area on the right.