What is single fibre EMG?
Single fibre EMG stands for single fibre electromyography. It is a very sensitive test which can give us information about the connection between the muscle and nerve (neuromuscular junction). The results can provide useful information to the consultant who has referred you for evaluation of your symptoms.

Before the single fibre EMG
1. Other tests: You may have to go through some routine nerve conduction studies/electromyography (NCS/EMG), if you have not had them before, please see the enclosed information sheet “Nerve Conduction Studies and Electromyography” for these tests.
2. We do not recommend you stopping any other medications before the test (e.g. Pyridostigmine) unless you have been directed to do so by your referring doctor.

What happens during the single fibre EMG test?
The single fibre EMG (SFEMG) test is performed by two methods. We may need to perform both or either one of them, depending on your condition. These two methods are as follows:
1. Stimulated SFEMG: This is first method of performing SFEMG. We will place a very fine needle electrode over your cheek bone, you will feel a small “scratch” and stimulate your facial nerve, resulting in slight twitching of your eye and face muscles. We then place another fine needle electrode along or above your eyebrow, this is to record the activity from the twitch. Multiple recordings will be made. This procedure takes between 20 – 30 minutes.
2. Volitional SFEMG: We may or may not need to perform this. If we do, we will keep the needle electrode above your eyebrow in place or may need to place it in a muscle on your forehead. Then we will ask you to look up or down, depending on which muscle we record from. Again multiple recordings will be made. This will take another 20 – 30 minutes.

Important note: The small size of the needle means that it should not be too uncomfortable. As with all needles, this can sometimes leave a bruise and the muscles may feel sore for a while after the test. The entire test may take up to 90 minutes.

After the single fibre EMG test
The results of the investigation need to be analysed afterwards and a full report will be sent to the consultant who referred you for the test. Single fibre EMG testing is a very safe procedure and you can return to your normal daily activities immediately after the investigation. Please contact your GP if you are concerned about bruising or pain following the procedure.