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EMG Patient Information

What is EMG testing?

- EMG stands for **electromyography**. It is a procedure that looks at the health and integrity of the nerves and muscles. There are two parts to this procedure: the nerve conduction studies and the needle electromyogram. Both may result in some mild discomfort, but are usually very well tolerated.
- The nerve conduction studies are performed by an electroneurodiagnostic technologist who has special training in this study. During this test, electrodes are applied to the skin and electrical impulses are sent through the nerves to measure how well the nerves are communicating with the muscles.
- The needle electromyogram is performed by a fellowship trained neurologist called a neurophysiologist. During this test, a needle electrode is inserted directly into the muscle. The needle electrode functions as a microphone, allowing the neurologist to listen to the muscle activity. Nothing is injected and no electrical impulses are sent through the needle.
- Depending on what the EMG is being performed for, the whole test will consist of between 3 and 15 nerve conduction studies, and between 5 and 20 muscles being tested by needle examination. It will take approximately 1 hour to perform.

Why has the test been ordered?

If you have numbness, decreased sensation, tingling, radiating pain or burning, your doctor may refer you for an EMG/NCS. Symptoms such as muscle spasms, weakness and difficulty buttoning clothes, handling objects or walking may also indicate the need for the EMG/NCS. Conditions that EMG/NCS tests help diagnose include carpal tunnel syndrome, a pinched nerve, radiculopathy, sciatica, neuropathies, muscle disease, muscle dystrophy, Lou Gehrig's disease and myasthenia gravis.

What you should know before the exam?

- EMG/NCS testing is extremely safe. EMG needles are used for only one patient, are not recycled, and are immediately disposed of following use
- Side effects may include some muscle soreness, which rarely lasts more than an hour or two after the exam.
- Patients on anticoagulation or blood thinners and those with pacemakers or implanted defibrillators should notify the physician performing the test, but generally this is not a contradiction. Patients with joint replacements or other artificial components in their body do not need to take antibiotics specifically for the EMG.
- Please refrain from using body lotion on the day of your exam.
- All medications and vitamins can be taken as usual.
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- If you are not able to ambulate on your own you must schedule appointment at our Honolulu office.