Electrodiagnostic study

Electrodiagnostic studies are clinical tests usually performed by a neurologist or a physical medicine and rehabilitation physician. Electrodiagnostic studies of peripheral nerves consist of two parts:

1. conduction measurements: typically referred to as “NCV” (nerve conduction velocity) study but technically should be called NCS (nerve conduction study) since amplitude, latency, and duration of motor & sensory nerves are also evaluated. Electrical stimulation is applied through surface electrodes at specified locations and electrical responses are recorded in receiving electrodes. Since needles are almost never used, NCS can be done in patients on anticoagulants or antiplatelet drugs

2. electromyogram (EMG) AKA “needle exam”. This part of the exam consists of inserting needle electrodes into muscles and analyzing muscle electrical activity at rest. Some will not do an EMG in patients on anticoagulants or antiplatelet drugs due to the risk of hematoma which could produce a compartment syndrome.

see EEG.