

**Topic: Nerve Conduction**  
**Class: B.Sc Part –III (Hons.)**  
**Paper- V**  
**Group – B**

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# Medical uses

- Nerve conduction studies along with needle electromyography measure nerve and muscle function, and may be indicated
- when there is pain in the limbs, weakness from spinal nerve compression, or concern about some other neurologic injury or disorder.

- Spinal nerve injury does not cause neck, mid back pain or low back pain, and for this reason, evidence has not shown EMG or NCS to be helpful in diagnosing causes of axial lumbar pain, thoracic pain, or cervical spine pain.

- Nerve conduction studies are used mainly for evaluation of paresthesias (numbness, tingling, burning) and/or weakness of the arms and legs.
- The type of study required is dependent in part by the symptoms presented.
- A physical exam and thorough history also help to direct the investigation.
- Some of the common disorders that can be diagnosed by nerve conduction studies are:

- Carpal tunnel syndrome
- Cubital Tunnel Syndrome
- Guillain–Barré syndrome
- Guyon's canal syndrome
- Peripheral neuropathy
- Peroneal neuropathy
- Spinal disc herniation
- Tarsal Tunnel Syndrome
- Ulnar neuropathy