Silectrode

Stimulating and recording electrodes for nerve conduction studies to allow neurosurgeons and neurologists to determine the presence of functioning axons in the zone of a PNI.

BACKGROUND

Peripheral nerve injuries (PNIs) are trauma-induced injuries of peripheral nerves, typically from the crushing of a nerve, which present symptoms ranging from pain to loss of motor and sensory function.

Peripheral nerve injuries:



In annual healthcare costs (nerve repair)

OUR PRODUCT



Americans suffering from PNIs



Our product allows surgeons to evaluate the extent of damage and determine next steps for treatment. The product includes a handle, electrodes, and a fastening mechanism to secure the device in place for the duration of the nerve conduction study.





Contact us at nrieman1@jh.edu

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Per treatment







Improved Accuracy: Our product utilizes a silicone-coated design that minimizes interaction with surrounding tissues and a securement mechanism that increases contact with the injured nerve.

Decreased Decision-making Time: Our product decreases signal artifacts by increasing nerve-electrode contact and minimizing lifting, producing clear signals for evaluation of nerve damage.



Easy to Use: Our product has a simple securement mechanism that can be quickly attached and detached from the injured nerve.

JOHNS HOPKINS

BIOMEDICAL ENGINEERING

TESTING SETUP

PRODUCT BENEFITS



SALINE SOAKED GAUZE : SURROUNDING TISSUE



