

Nerve Repair and Nerve Grafting

What are nerve injuries?

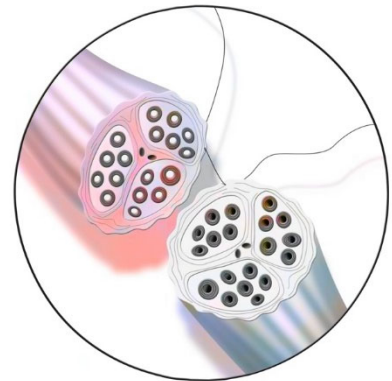
A peripheral nerve is any nerve that carries messages from the brain and spinal cord to the rest of the body. There are 3 main types of peripheral nerves:

- *Sensory nerves*: nerves which carry messages about sensations such as pain and heat from the body to the brain or spinal cord.
- *Motor nerves*: nerves which carry messages about function from the brain and spinal cord to the muscles telling them to contract to move the body.
- *Mixed nerves*: nerves which have both sensory and motor components.

No matter which type of nerve it is, each nerve consists of a grouping of nerve cells known as fascicles surrounded by a protective sheath. Injuries can occur from the nerve being compressed, stretched, cut, or torn. If the fascicles are damaged but the outer sheath remains intact, there is the possibility that the nerve will heal itself over time. If this does not happen or if the outer sheath is also damaged, surgery may be needed to repair or graft the nerve.

What is nerve repair?

Nerve repair is a surgical treatment for nerve injury in which the nerve is partially or completely severed. Damaged tissue from the end of the nerve is removed and the ends of the nerve are repaired back together using very small sutures (stitches) often placed with the assistance of a surgical microscope.



What is the nerve grafting?

Nerve grafting is a surgical treatment for nerve injury in which the nerve is completely torn and there is enough damage that the ends of the nerves no longer meet together to allow for direct repair. In this case a piece of nerve from another area of the body may be used to connect the two pieces and is sutured (stitched) into place between the ends of the torn nerve. This may sometimes be done with artificial grafts or with allograft (donor) nerve tissue.

What is the surgical recovery?

Nerves recover very slowly so the process of recovery after surgery can take up to a year. Splints may be used to protect the area and physical or occupational therapy is started and continued as long as possible. You will have regular visits to assess recovery of sensation and function and may even have a repeat EMG/NCS to evaluate progress.