

What to Expect?

You may have:

- Loss of muscle bulk and altered shape and posture of hand
- Areas of altered feeling and numbness for several months
- Intermittent shooting pains

Therapy:

Your therapist will assess your recovery by checking muscle activity with movement. Your therapist will also look at the sensation recovery; this will initially be completed by using small nylon filaments to assess whether or not you can feel a pressure touch whilst not looking. These measurements will be charted and repeated every 3-6 months, this time period is required due to the slow nature of nerve recovery.

You will then be taught exercises to be completed to aid this recovery, and where required a splint will be provided to help support your arm and hand in the most suitable position.

Over this recovery there will be goals that are set to achieve with the aim to look into:

- Maintaining range of movement at all joints
- Encouraging sensory recovery
- Re-learning how to improve function and dexterity of the hand
- The process of nerve recovery is very slow and can take up to 5 years to reach full potential.

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Peripheral Nerve Injuries

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Na żądanie ta ulotka może zostać udostępniona
w innych językach/formatkach.

Therapist: _____

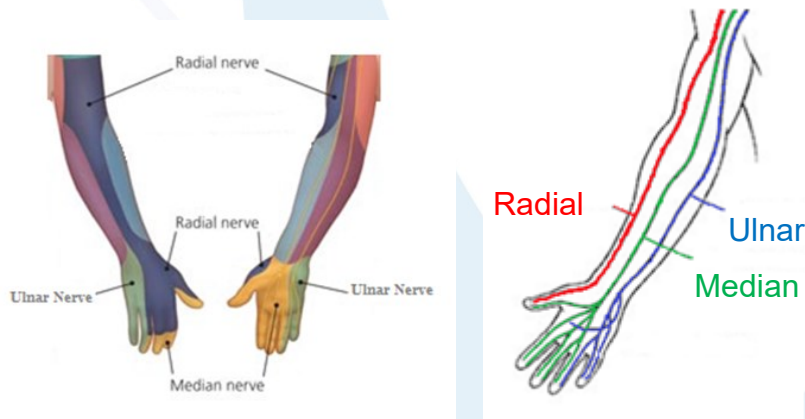
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What are peripheral nerves of the arm and hand?

The peripheral nervous system links the signals sent from your brain and spinal cord to your muscles for movement, and skin for sensation (feeling). If there is an injury to any of these nerves it can lead to a loss of movement and/or sensation. The area of loss of sensation or movement depends on which nerve is damaged and where it is damaged.

There are 3 main nerves in the arm:

- Radial Nerve
- Median Nerve
- Ulnar Nerve



These nerves are then divided into motor nerves which carry electrical impulses to the muscles to make them contract and move, and sensory nerves which carry electrical impulses to send information from the skin.

Which nerve is injured:

How this affects your hand:

Nerve Damage

When a nerve is damaged, the nerve fibres above the injury continue to work as normal, but the nerves below the injury are affected and die.

Once repaired over time the nerve fibres should re-grow until they reach the muscle or sensory receptor in the arm and hand.

This is a long process, and it takes about 3-4 weeks for this process of recovery to begin, and estimates that the recovery is about 1mm per day. Very few people achieve a 100% recovery.

During the recovery of nerve fibres the electrical pathways can get muddled and messages can get confused. This can result in a decreased sensation, pins and needles or shooting pains and increased sensitivity whilst the brain is re-learning sensations.

You will be guided in this sensory recovery by your therapist.

You may also have an “autonomic response” following nerve injury which may lead to increased or reduced sweating, dry skin, increased hair growth and/or cold intolerance. This is due to the nervous system response to injury.

Recovery can be hindered by:

- Scar tissue: can prevent re-growth of nerve fibres.
- Your age: children expect very good recovery, slowing after the age of 20 and reduced as you get older.
- The level and type of injury: the higher up the arm the more severe the injury.
- Smoking: reduces blood supply and therefore nutrients for recovery.
- Poor diet and nutrition: slows the healing process.