

## Neurogenic Pain

Neurogenic pain ('neuropathic pain') is caused by abnormal communication between the nerves that were damaged by your spinal cord injury and the brain.

In neurogenic pain, it is thought that the brain 'misunderstands' or amplifies the intensity of the signals it is getting from around the area of your injury. This can cause you to experience pain coming from areas of your body below where you have little or no feeling. This is why a person can feel neurogenic pain in an area that otherwise has no feeling. It is often compared to phantom limb pain that patients suffer after amputation.

The pain usually starts a few weeks or months after injury. The symptoms can include pins and needles, burning, stinging or shooting pains.

Even though pain after SCI can be complicated and difficult to treat, there are many treatments available that can help. Understanding your pain, working with your doctor and being open to a variety of treatments will help you manage your pain and improve your quality of life.

### Patient Story:

My pain did not start until three months after my injury. It started in my big toe with the feeling that I had a hole in my sock and my big toe had gone through it. Even though I had a complete injury and fully understood this, I still thought that I was getting sensation back in my foot. The feeling was so real but when I took off my shoe my sock was intact.

It is a strange pain as it does not follow any sort of pattern. There never seems to be any particular triggers just some days the pain is better than others.

On a personal level I take medication prescribed by my doctor but I find keeping busy and distracting myself from the pain also helps. One of the most effective distractions I use is taking exercise and using my standing frame.

## Upper Limb or Hands Splints

If you have a cervical injury it is likely that you will have some weakness in some or all of the muscles in your arm (s).

Depending on the level and severity of your injury we may give you splints. These are also known as orthoses.

Splints are individually fitted and can be for the elbow, forearm or hand. Shoulder supports or strapping may also be appropriate. Your occupational therapist will assess and fit any appropriate splints if required. They will also advise you on the appropriate wearing regime.



### What are splints for?

Splints are for providing support to the hand and, or arm. They are individually prescribed and designed specifically to

1. provide support to the hand.
2. maintain range of movement in the joints of the arm and hand, reduce or prevent deformity, contractures and oedema (swelling).
3. prevent changes in the shape of the hand which can happen very gradually.
4. minimise swelling (oedema) in the hand which can cause stiffness and loss of range of movement.

### What are the different types of Splints?

There are many different types of splints. However, the main ones that we may use are listed below.

#### Shoulder Braces

These may help to reduce any (dislocation) in the shoulder joint. Your therapist will give you advice on wearing these.

## Taping

This is sometimes an alternative to the shoulder brace at the beginning of rehabilitation.

## Elbow Splints

These prevent or reduce elbow flexion contractures (that mean you cannot straighten your elbow).

## Forearm Splints

These are also known as T.A.P. (Tone and Positioning) splints.

## Wrist Supports

These are usually pre-fabricated neoprene splints with velcro straps to support the wrist leaving the thumb and fingers free. You wear these during the day when moving about.

## Hand Resting

These support your hand and wrist joints when resting. These are fitted specifically for you. Depending on level of injury these can be either short (i.e. only supporting the palm, thumb and fingers) or long i.e. designed to support the wrist plus the hand).

After being fitted, you initially wear the hand resting splints for 30 minutes. Over the next 3 to 4 days you should gradually build up the time until you can wear the splints overnight. Generally we recommend that you wear the hand splints for the first 6 months to a year. However each case is individual and your therapist will give you further advice.

## Small splints

These come in many shapes, sizes and materials. They can range from pen grips to individual finger supports. These are designed and manufactured as required by the appropriately trained therapists.