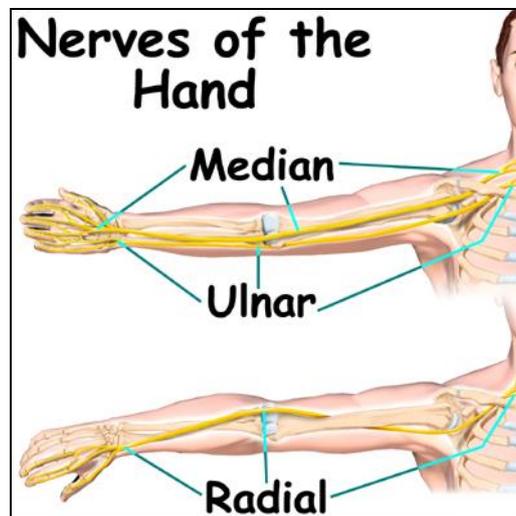


Patient Information

**Hand Therapy- Upper Limb Unit****Nerve Injuries****General Information****What do nerves do?**

The nerves make the muscles work by sending messages from the brain telling them to contract. The nerves allow us to feel sensations such as light or firm touch, hot or cold, by sending messages to the brain. They also tell us the position of the arm.

Nerve Damage

Following minor injuries nerves may be bruised and therefore some sensation and function may be lost. As the bruising settles the muscles and sensation will return to normal. This may take a few weeks.

Following more significant injuries some or all of the nerves may be damaged or cut and the part furthest from the body may even die. The nerve will regenerate (grow again) after three to four weeks; it grows 1mm per day or 2cm per month. Depending on the amount of damage and the health of the soft tissues, the muscles and sensation



Patient Information

recover. It is not possible to predict if the recovery will be total.

How This Affects You

If your sensation is reduced you need to be careful with hot temperatures and sharp objects. For example, if your hand is left over a boiling saucepan your nerve will not inform you to move your hand away and it may get burnt. Or if you accidentally cut yourself your nerves will not register pain, and the cut may be worse. If your muscles are weak or don't work you may lose function or get joint stiffness. Once the joints are stiff it can be very difficult to get the movement back, if at all.

Physiotherapy / Occupational Therapy

Therapy can measure how much you can feel and educate you on the risks specific to you. We can monitor your improvement and, if necessary, re-educate your sense of touch as your nerves re-grow.

We can make splints to improve your movement and prevent stiffness. We can teach you exercises to prevent stiffness and help mobility.

What you can do

- Eat a healthy balanced diet to help the nerve recover and keep the soft tissues healthy.
- Ensure you do your recommended exercises. Any stiffness will reduce the use of your hand.
- Wear your splints as advised.
- Remember to be careful with sharp or hot objects.

Radial Nerve Nerve Deformity



The radial nerve straightens the elbow and lifts the wrists and fingers. It mainly supplies the sensation to the back of the hand.

If these muscles do not work you will be supplied with a resting splint, for comfort and to stop the tendons stretching. You may be given a splint to improve the use of your hand.

Ulnar Nerve Nerve Deformity

Patient Information



The Ulnar nerve helps with making a fist. It gives power and smooth movement of the ring and little fingers; it also supplies sensation to the palm side of the little finger and half of the ring finger.

If these muscles don't work you may need a resting splint to stop the joints getting stiff and a splint to stop the fingers clawing or curling as you straighten them.

Median Nerve Nerve Deformity



The median nerve mainly controls the thumb placement. It supplies the sensation to the palm side of the thumb, index and middle fingers, and half of the ring finger.

If these muscles do not work you may need a splint to hold your thumb in a better functional position, as the muscles cannot do it. The picture above shows the thumb at the side of the hand, the muscles are unable to bring it into a useful position.

Further Information

If you need further information please contact your Therapy Department:

University Hospital, Coventry and Warwickshire: Tel 024 7696 6016

Rugby, St Cross Hospital: Tel 01788 663257 For further information please visit our hand service web site <http://tinyurl.com/uhcwhand>

The Trust has access to interpreting and translation services. If you need this information in another language or format please contact 024 7696 5969 and we will do our best to meet your needs.

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Document History

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Patient Information

Department	Physiotherapy
Contact Tel	024 7696 5969
Published	July 2010
Reviewed	June 2019
Review	June 2021
Version	6.1
Reference No	HIC/LFT/1062/10