

Patient Information



Upper Limb Unit: Hand Therapy

Sensory Re-education (Late Phase)

Introduction

Following an injury to a nerve the ability to feel (sensation) may be lost or altered. There are a number of different aspects of sensation that can be affected. These include the following:

- Ability to feel dangerous things that may damage your skin such as: heat, pressure and sharp objects. You therefore need to be careful around sharp and hot objects to prevent hurting yourself
- Ability to feel touch in the correct part of your hand
- Ability to feel a very slight or fine touch
- Ability to distinguish between a single and two separate but very nearby touches to the skin
- Ability to recognise textures and objects by touch
- Ability to handle small objects

Following injury, the nerve fibres may not grow back exactly as they were before. If this happens altered messages are sent back to the brain by the nerves and the brain cannot 'interpret' these messages. As a result you cannot understand the sensation.

Your sensation has now recovered enough to begin late phase sensory re-education. The following techniques can be used to help the brain to interpret the new messages from the sensory nerves and improve the function of your hand. You will need to complete each activity for a few minutes at a time on a very regular basis for it to be effective.

Localisation

This is the ability to feel a touch in the correct part of the hand. Your therapist will have tested your ability to do this and identified any areas in which your touch localisation is inaccurate.

Touch these areas individually whilst watching. Next close your eyes and concentrate



Patient Information

on the sensation whilst reminding yourself of where you are touching. Finally open your eyes and look again at the hand.

What you see has a greater influence than what you feel. The visual image of where you are touching will therefore override the signals coming from the nerves and you will remember the touch in the correct place.

Texture and object recognition

The following techniques can be used to improve your ability to recognise textures and objects by touch.

Hide different objects or materials in a bag or other container full of rice/lentils sand etc so that you cannot see them.

Using **only** the affected area of the hand, try to identify which object or material you are touching before removing it from the container. If you are unable to correctly identify the object or material use the same technique as described for localisation - watch yourself touching the object, close your eyes and concentrate on how it feels, and then re-open your eyes to look again at the object or texture you are touching. You can also carry objects in a pocket or handbag and practise trying to identify these from touch.

Object manipulation

Reduced sensation in the hand affects your ability to handle small fine objects. To improve your ability to do this find a collection of small objects that you can practise picking up and placing in a container. You can time how quickly you are able to do this to measure your improvement. You can also play a game such as solitaire which has small pieces to handle.

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 6016 and we will do our best to meet your needs.

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Document History

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