

Allocated Therapists:

Stroke Therapy Services Telephone: 0151 430 1015

Advice and Exercises for altered sensation in limbs following a stroke

This leaflet can be made available
in alternative languages / formats on request.

如有需要，本传单可提供其他语言/版式
此單張的其他語言/格式版本可按要求提供

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

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Background Information

It is important to realise that no two people are affected the same from a stroke. The effects of a stroke depends on what part of the brain has been affected and how much damage has been caused. There are different ways in which, a stroke can affect your senses. You could be less sensitive to touch, may not feel yourself bumping into things or you could have increased sensitivity to pain or you may experience abnormal and unpleasant sensations such as burning, tingling or numbness.

Altered senses in your arm or leg can cause inability to use the affected limb normally. For example:

- inability to keep a firm grip;
- difficulty in manipulating a hand held object such as a brush;
- difficulty recognising a familiar object in the hand without looking at it (stereognosis);
- difficulty standing with the feet in the right position.

Our brains are wired so that sensation and movement are inter-linked, such that if one becomes affected, the other also is likely to become impaired.

During rehabilitation, regaining movement of a weak arm or leg can be more difficult if you are unable to feel the floor beneath your feet, feel an object in your hand or unsure of the position of your limb.

7. Temperature

Ask a family member / relative to help put your hand into different bowls of cold or hot water or apply a Tupperware / test tube with cold / hot water and see if you can detect the difference between them.

8. Vibration

This can help to stimulate nerve ending or decrease sensitivity. Find an area of your hand that is you cannot feel or is over sensitive, use an electric toothbrush to gradually give vibration over this area. Work on each area for 2-3 minutes.

9. Foot

You can work on your foot with all the exercises. It will be more difficult to reach your foot so it would be advisable to ask a relative or friend who can help with positioning and do the rubbing.

If you have any questions or require any further information, please speak to your allocated therapists.

Other exercises

3. Textures

You could do the exercises using different textures to rub specific areas of your hand trying to differentiate between rough and smooth with your eyes closed. For example; using cotton wool and a toothbrush, velcro and satin.

4. Hand Cream

Rubbing in hand cream into your affected hand while paying attention to your hand, is very beneficial. A relative or friend can do this for you but it is better that you do this yourself.

5. Stereognosis

An exercise you could do when you are home: if you have good movement in your hand but poor sensation, you could hide objects such as marbles, coins, pegs, pencil, spoon in a bowl of rice or sand. Without using your vision, try to find the objects with your affected hand or if someone else has hidden objects, try to identify each one.

6. Grasp

Fill a flexible paper cup or plastic bottle, attempt to grasp the cup / bottle without spilling or crushing the cup/ bottle. Repeat exercise moving cup or pouring into another cup without spilling.

Safety of your affected limb

Things you can do:

- Make sure you regularly check the position of your affected limb so it is supported and safe.
- Gently move or reposition your affected arm regularly to prevent stiffness developing in your joints, reduce pain and prevent any pressure areas developing.
- Use your unaffected hand to reposition or move your affected arm/leg.
- Make sure you check the temperature of water /objects with your unaffected hand first to prevent scalding or burning.

An example of how to support your affected arm well using pillows:



Sensory re-education exercises

Research evidence shows that sensory re-education exercises can be used to try to retain sensory pathways or stimulate unused pathways that send messages to the brain.

These exercises can include stimulating different parts of your hand, using different textures/ objects, recognising joint positions, identifying different temperatures and electrical stimulation.

Listed over the next few pages are some ideas of exercises to help with sensation. To maximise any improvements, it is beneficial to carry out these exercises yourself 2 - 4 times a day, for a total of 10 minutes, in a quiet room.

1. If you have poor awareness / attention to your affected hand

- Ensure your affected arm is positioned and you can see your hand.
- Use a towel wrapped around one finger of your unaffected hand and gently work around your affected hand to rub each individual finger / thumb. Make sure you watch and pay attention to the towel moving throughout.
- If this is too difficult, ask a relative/ friend to rub your hand while you watch and tell them where they are rubbing but it is better if you can do this yourself.

Important:

You need to be careful when rubbing your hand, especially when you have a loss in sensation, that you are not making the skin red. It is important that you regularly check the skin on your hands.



2. If you are struggling to identify different parts of your hand and individual fingers

- Ensure your affected arm is positioned and close your eyes.
- Use a towel wrapped around one finger of your unaffected hand and gently work around your affected hand to rub each individual finger / thumb.
- Try to recognise the exact position being rubbed on your hand and visualise this part of your hand.
- Open your eyes to check.
- If you were wrong, using the towel, rub the specific area again concentrating on that part of your hand.
- Repeat again with your eyes closed and try to remember the feeling on that specific part of your hand.
- If this is difficult try to work between only two different areas; for example: thumb and little finger or ask a relative or friend to rub specific areas on your hand and you tell them the location without looking.