

CENTRAL POST-STROKE PAIN

Central post-stroke pain (CPSP) is a form of nerve pain that occurs in about 1 in 10 people after a stroke. This factsheet describes how CPSP can be recognised and explains some of the treatments that are used to help relieve CPSP. It also looks at some strategies that you can develop to help yourself if you have CPSP.



About 1 in 10 people have CPSP after a stroke

Pain after stroke

Pain after a stroke is common, occurring in up to half of all people who have had a stroke.

There are different types of pain that are experienced after a stroke. These include:

- Shoulder pain – muscular pain and stiffness in the shoulder
- Painful spasms or spasticity – muscle tightness or involuntary movement
- Headache
- Central post-stroke pain (CPSP) – a form of nerve pain (also known as neuropathic pain)

Some people get more than one type of pain at a time.

It is important that pain after stroke is recognised and managed early, as it can affect a person's quality of life. It can cause disturbed sleep and tiredness, affect mood and social functioning, and can lead to depression and anxiety.

FACTSHEET

What is central post-stroke pain (CPSP)?

The exact cause of CPSP is not fully known, but it is thought to be due to damage to your brain caused by your stroke. It can start at the time of the stroke, but usually occurs several weeks or months after a stroke. Although CPSP does not arise from physical damage to the part of your body where the pain is felt, it can feel very much like it does.

What does CPSP feel like?

Pain usually occurs in the areas of your body that have been affected by the stroke. The area of pain can vary in size and distribution. For example, in some people a small part of the face or one hand may be affected; in others pain may be felt down the whole of one side of the body or a whole arm or leg.

The pain can come on suddenly with no apparent reason, or it can be in response to a stimulus such as stress, touch, movement or temperature. In some people there is a loss of feeling; for example, you cannot tell the difference between hot and cold, or light touch may not be felt. In others, pain is disproportionate to the stimulus; for example, a light touch may be felt as severe pain.

People often describe the pain associated with CPSP as:

- Shooting
- Burning
- Stabbing
- Pins & needles
- Throbbing
- Lacerating
- Squeezing
- Electric shock-like
- Numbness

How is CPSP diagnosed?

Pain can start at the same time as the stroke, but in most people it starts within the first few months of having a stroke. Because pain often comes on slowly weeks or months after a stroke, it is not always recognised as being related to the stroke. It is important that you tell someone if you have any pain or changes in sensation so that you can get the right diagnosis and treatment as soon as possible.

There is no definite test to diagnose CPSP. Diagnosis is based on several factors including:

- Making sure there is no other likely cause for the pain
- Pain starting at the same time as or after a stroke
- The location of pain corresponds to the location of the stroke
- The type of pain is typical of CPSP



How is CPSP managed?

Because CPSP is a nerve pain, standard pain relief such as paracetamol or ibuprofen is often not effective. There are different groups of medicines that can also be tried, although the evidence that they work is not very strong. It may take a few weeks for you to feel the benefit of these, so it is important that you take them regularly to give them the best chance of working, not just when your pain is bad. It may be necessary to try different ones to find one that works best for you with fewest side effects. Sometimes a combination of medicines is needed to get the right balance between pain relief and side effects.

Medicines that may be tried include:

- **Amitriptyline** is an anti-depressant medication, but used in low doses, it has also been shown to be effective for helping neuropathic pain.

There are also several **anti-epileptic medicines** that have been shown to be helpful in some people for CPSP. These include:

- **Gabapentin** and **pregabalin**
- **Lamotrigine**

These medicines are usually started at a low dose and increased gradually until they either relieve your pain or you experience intolerable side effects.

Common side effects experienced with medicines to treat CPSP

Medicine	Common side effects
Amitriptyline	Tiredness, dry mouth, constipation
Lamotrigine	Skin rash
Gabapentin and pregabalin	Tiredness, dizziness, nausea



Non-medical treatment

Because pain is often associated with depression, sleep disturbances and anxiety, 'talking' treatments such as cognitive behavioural therapy can be useful in addition to medication. Ask your GP or stroke team about referral to local services.

Pain clinics and pain management programmes

If your pain continues despite initial treatment, you may be referred to a pain clinic for more specialist advice about managing your CPSP. Some clinics offer a pain management programme, which uses a combination of group therapy, exercises, relaxation and education to help you manage your pain better and improve your quality of life.

Stimulation therapy

When medicines are not helpful, stimulation therapies may be considered. These include deep brain stimulation, motor cortex stimulation and repetitive transcranial magnetic stimulation. These treatments involve surgically implanting a stimulator in the brain or spinal cord and are only available in specialist centres. Response to these treatments varies, and they are only suitable for a small proportion of people.

What can I do to help myself?

Many people find it helpful to develop strategies to help them cope with their pain.

- Stress and emotional upset can make CPSP worse. It can be helpful to learn relaxation techniques and strategies to help you manage your pain. These might include meditation, deep breathing exercises, gentle yoga or tai chi. See the CHSS factsheet '*Living with stress and anxiety*' for more information.
- Try changing your body position to help reduce pain. Many people find their pain is less when they are moving.
- Try to avoid things that can cause pain, such as hot baths, tight or easily bunched clothing, and pressure on the side of your body affected by the stroke.
- Distractions such as reading, watching television, having a change of scenery or meeting a friend can help you forget your pain for a while.
- Talk to caregivers and healthcare professionals about your pain and how you are feeling.
- Depression is common among those who suffer from chronic pain. If you are feeling low or depressed, try to talk to someone about how you are feeling. See the CHSS factsheet '*Coping with low mood and depression*' for more information.

In some people CPSP will improve over time. For others pain is long-lasting but with the right treatment and coping strategies you should be able to manage your pain and improve your quality of life.

If you require any more information please contact the CHSS Advice Line nurses on 0808 801 0899 (free from landlines and mobiles).

Useful contacts:**Pain Relief Foundation**

Clinical Sciences Centre, University Hospital Aintree, Lower Lane, Liverpool L9 7AL

Tel: 0151 529 5820

Email: secretary@painrelieffoundation.org.uk

Website: www.painrelieffoundation.org.uk

The foundation provides leaflets designed to help and support patients and chronic pain sufferers, as well as providing specially prepared self-help audio cassette tapes and CDs.

Pain Association Scotland

Moncrieffe Business Centre, Friarton Road, Perth PH2 8DG

Tel: 0800 783 6059

Email: info@painassociation.com

Website: www.painassociation.com

The Pain Association promotes self management for people with chronic pain.

The British Pain Society

Churchill House, 35 Red Lion Square, London WC1R 4SG

Tel: 020 7269 7840

Email: info@britishpainsociety.org

Website: www.britishpainsociety.org

An alliance of professionals advancing the understanding and management of pain for the benefit of patients. There is also a section for people living with pain.

Pain concern

Unit 1-3, 62-66 Newcraighall Road, Edinburgh EH15 3HS

Tel: 0131 669 5951

Helpline: 0300 123 0789 (10am-4pm on weekdays)

Email: help@painconcern.org.uk

Website: painconcern.org.uk/about-us

Produces information on pain; provides support to people with pain and those who care for them; raises awareness about pain and campaigns to improve the provision of pain management services.

If you would like to speak to one of our nurses in confidence,
please call the Chest Heart & Stroke Scotland Advice Line Nurses

0808 801 0899

Call FREE from landlines and mobiles