

- THIS TREATMENT IS NOT A CURE FOR YOUR PAIN. USING A COMBINATION OF GROUP THERAPY, EXERCISES, RELAXATION AND EDUCATION ABOUT PAIN AND THE PSYCHOLOGY OF PAIN, YOU WILL BE TAUGHT HOW TO INCREASE YOUR ACTIVITIES. SOME PATIENTS HAVE LESS PAIN AT THE END OF THE PROGRAMME AND PATIENTS ARE ABLE TO MANAGE THEIR PAIN BETTER AND HAVE A BETTER QUALITY OF LIFE.

### WHERE TO GET HELP AND SUPPORT

THE STROKE ASSOCIATION, STROKE HOUSE, 240 CITY ROAD, LONDON EC1V 2PR  
[WWW.STROKE.ORG.UK](http://WWW.STROKE.ORG.UK) NATIONAL STROKE HELPLINE 0303 3033 100

FOR MORE INFORMATION, WRITE TO:  
 THE STROKE ASSOCIATION, NORTHAMPTON RESOURCE CENTRE, CHARLES HOUSE, 61-69 DERNGATE, NORTHAMPTON NN1 1HD

THE BRITISH PAIN SOCIETY, [WWW.BRITISHPAIN SOCIETY.ORG](http://WWW.BRITISHPAIN SOCIETY.ORG) 3RD FLOOR, CHURCHILL HOUSE, 35 RED LION SQUARE, LONDON WC1R 4SG. TEL. 0207 269 7840

**THE PAIN RELIEF FOUNDATION IS NOT RESPONSIBLE FOR THE CONTENT OF ANY INFORMATION PROVIDED BY ANOTHER ORGANISATION AND DOES NOT ENDORSE ANY PRODUCT OR SERVICE MENTIONED OR ADVISED BY ANY OTHER ORGANISATION.**

THIS BOOKLET WAS WRITTEN BY THE STAFF OF THE PAIN RELIEF FOUNDATION AND ENDORSED BY THE WALTON CENTRE PAIN TEAM, WALTON CENTER FOR NEUROLOGY & NEUROSURGERY, LOWER LANE, LIVERPOOL, L9 7LJ, UK .  
[WWW.THEWALTONCENTRE.NHS.UK](http://WWW.THEWALTONCENTRE.NHS.UK)

THE PAIN RELIEF FOUNDATION IS A REGISTERED CHARITY. IF YOU FOUND THIS LEAFLET USEFUL PLEASE CONSIDER DONATING TO THE FOUNDATION. EVERY DONATION HELPS TO FUND RESEARCH INTO THE TREATMENT OF CHRONIC PAIN CONDITIONS.

COPIES OF THIS LEAFLET ARE AVAILABLE FROM THE PAIN RELIEF FOUNDATION, CLINICAL SCIENCES CENTRE, UNIVERSITY HOSPITAL AINTREE, LOWER LANE, LIVERPOOL L9 7AL, UK.  
 REGISTERED CHARITY NO. 1156227  
 TEL. 0151 529 5820, EMAIL: [HAYLEY.MCCULLOUGH@PAINRELIEFFFOUNDATION.ORG.UK](mailto:HAYLEY.MCCULLOUGH@PAINRELIEFFFOUNDATION.ORG.UK)

**DISCLAIMER: IF YOU HAVE A PAIN PROBLEM WHICH NEEDS TREATMENT YOU MUST CONTACT YOUR OWN DOCTOR. HE CAN REFER YOU TO A PAIN CLINIC IN YOUR AREA. THIS LEAFLET IS FOR INFORMATION ONLY AND SHOULD NOT BE TREATED AS A SUBSTITUTE FOR THE MEDICAL ADVICE OF YOUR DOCTOR. THE PAIN RELIEF FOUNDATION CANNOT OFFER INDIVIDUAL MEDICAL ADVICE.**



**PAIN RELIEF FOUNDATION**  
[www.painrelieffoundation.org.uk](http://www.painrelieffoundation.org.uk)

# CENTRAL POST STROKE PAIN

### WHAT IS CENTRAL POST STROKE PAIN?

- A STROKE OCCURS WHEN BLOOD CANNOT REACH A PART OF THE BRAIN EITHER BECAUSE OF A BLOOD CLOT BLOCKING A BLOOD VESSEL OR WHEN A BLOOD VESSEL BURSTS CAUSING BLEEDING INTO THE BRAIN. THIS RESULTS IN AN INJURY TO THE BRAIN WHICH MAY CAUSE WEAKNESS AND SLURRED SPEECH.
- 5% OF PEOPLE WHO HAVE A STROKE WILL DEVELOP NERVE PAIN (NEUROPATHIC PAIN). THIS PAIN IS NOW CALLED CENTRAL POST STROKE PAIN (CPSP) BUT USED TO BE CALLED THALAMIC PAIN SYNDROME
- THIS PAIN IS QUITE DIFFERENT FROM THE MUSCULAR PAIN AND STIFFNESS WHICH OFTEN OCCURS IN THE SHOULDER AFTER A STROKE. THIS SHOULDER STIFFNESS IS MAINLY DUE TO REDUCED MOVEMENT AND CAN OFTEN BE TREATED WITH PHYSIOTHERAPY.
- THE PAIN MAY START AT THE TIME OF THE STROKE, BUT USUALLY OCCURS SEVERAL MONTHS LATER. BECAUSE THE PAIN IS A NERVE PAIN IT IS OFTEN DESCRIBED AS BURNING, THROBBING, SHOOTING OR STABBING. THE PAIN IS FELT IN THE PART OF THE BODY AFFECTED BY THE STROKE.
- THERE IS OFTEN A LOSS OF FEELING IN THE AFFECTED PART, SUCH AS NOT BEING ABLE TO TELL THE DIFFERENCE BETWEEN WARM AND COLD, FOR EXAMPLE IN THE BATH, OR FEEL SHARP OBJECTS OR LIGHT TOUCH.
- IN SOME PATIENTS LIGHT TOUCH, SUCH AS CLOTHING BRUSHING AGAINST THE SKIN, OR COLD CAN CAUSE SEVERE PAIN. IN SOME CASES MOVEMENT MAY CAUSE SEVERE PAIN. THIS IS KNOWN AS HYPERSENSITIVITY OR ALLODYNIA.
- IN 20% OF PEOPLE WITH CPSP THE PAIN GETS BETTER OVER A PERIOD OF YEARS. A THIRD OF THESE PEOPLE WILL GET BETTER IN THE FIRST YEAR.

## WHAT CAUSES CENTRAL POST STROKE PAIN?

- THE PAIN IS THE RESULT OF DAMAGE TO THE BRAIN FOLLOWING A STROKE, BUT THE EXACT CAUSE IS NOT KNOWN. BECAUSE THE BRAIN IS DAMAGED, IT FEELS TOUCH, HEAT, COLD ETC. AS PAINFUL WHEN IT WOULD NORMALLY FEEL A NON-PAINFUL SENSATION.

## DIAGNOSIS

- EARLY DIAGNOSIS AND TREATMENT WILL HELP. YOUR DOCTOR MAY REFER YOU TO A SPECIALIST STROKE UNIT IF YOU DEVELOP NERVE PAIN AFTER EXPERIENCING A STROKE. AFTER TREATING OTHER POSSIBLE CAUSES FOR THE PAIN THE STROKE UNIT MAY REFER YOU TO A SPECIALIST PAIN CLINIC.

## TREATMENT

### DRUGS

- THERE IS NO CURE FOR CPSP BUT THERE ARE TREATMENTS WHICH CAN HELP. THESE TREATMENTS MAY PARTLY REDUCE THE PAIN BUT IT WILL NOT COMPLETELY DISAPPEAR. IT MAY BE NECESSARY TO TRY DIFFERENT MEDICINES TO SEE IF THEY HELP.
- THE USUAL PAINKILLERS, SUCH AS IBUPROFEN AND PARACETAMOL, WHICH CAN BE BOUGHT AT THE CHEMIST, HAVE LITTLE OR NO EFFECT ON CPSP. THE MEDICINES WHICH HELP CAN ONLY BE PRESCRIBED BY A DOCTOR.
- ANTIDEPRESSANT DRUGS SUCH AS AMITRIPTYLINE OR IMIPRAMINE, ORIGINALLY DEVELOPED TO TREAT DEPRESSION, CAN SOMETIMES BE USEFUL FOR NERVE PAIN. THEY MAY CAUSE SIDE EFFECTS SUCH AS DRY MOUTH, DROWSINESS, OR CONSTIPATION. IT MAY BE POSSIBLE TO GET THE RIGHT BALANCE BETWEEN SIDE EFFECTS AND BENEFIT SO THAT THEY ARE OF SOME HELP.

- ANTI-EPILEPTIC DRUGS SUCH AS GABAPENTIN AND PREGABALIN (LYRICA®), CAN ALSO BE USEFUL FOR NERVE PAIN IN SOME CASES. OTHER ANTICONVULSANT DRUGS, SUCH AS CARBAMAZEPINE (TEGRETOL®) MAY ALSO HELP. IT IS WORTH TRYING THEM EITHER ALONE OR IN COMBINATION WITH OTHER DRUGS. THESE DRUGS MAY CAUSE SIDE EFFECTS. YOU MAY GAIN WEIGHT, FEEL UNWELL, DROWSY OR DEVELOP A RASH.
- THESE DRUGS MUST BE TAKEN REGULARLY FOR THEM TO WORK, AND NOT JUST WHEN THE PAIN IS BAD. SOMETIMES MORE THAN ONE DRUG IS NEEDED. IF THEY WORK THEY NEED TO BE TAKEN FOR AS LONG AS YOU HAVE THE PAIN.

## OTHER TREATMENT

- STRESS AND EMOTIONAL UPSET CAN MAKE THE PAIN WORSE. RELAXATION, MEDITATION, GENTLE YOGA, TAI CHI ETC. CAN ALL HELP.
- TRANSCUTANEOUS ELECTRICAL NERVE STIMULATION (TENS) MAY HELP SOME PATIENTS. THIS TREATMENT, USING ELECTRODES PLACED NEAR THE PAINFUL AREA, CAUSES A TINGLING SENSATION, WHICH MAY REDUCE THE PAIN.
- ELECTRICAL STIMULATION SUCH AS SPINAL CORD STIMULATION, DEEP BRAIN STIMULATION AND MOTOR CORTEX STIMULATION CAN HELP IN SOME PEOPLE. HOWEVER, THESE TREATMENTS INVOLVE SURGICALLY IMPLANTING A STIMULATOR IN THE BRAIN OR SPINAL CORD. THESE TREATMENTS ARE ONLY AVAILABLE IN A FEW SPECIALIST CENTRES AND ARE RARELY SUITABLE FOR PEOPLE WITH CPSP.
- PSYCHOLOGICAL SUPPORT AND COUNSELLING CAN OFTEN BE HELPFUL.

## PAIN CLINICS & PAIN MANAGEMENT PROGRAMMES

PAIN CLINICS CAN OFFER YOU THE TREATMENTS MENTIONED IN THIS LEAFLET. IN ADDITION, AFTER ASSESSMENT IN THE PAIN CLINIC, IN SOME SUITABLE CASES, YOU MAY BE REFERRED TO A PAIN MANAGEMENT PROGRAMME, WHICH IS A PROGRAMME OF REHABILITATION.