

## WHERE TO GET HELP AND SUPPORT

Diabetes UK. [www.diabetes.org.uk](http://www.diabetes.org.uk)

10 Parkway, London NW1 7AA. Tel. 020 7424 1000 Careline 020 7424 1030

The British Pain Society, [www.britishpainsociety.org](http://www.britishpainsociety.org) 3rd Floor, Churchill House,  
35 Red Lion Square, London WC1R 4SG. Tel. 0207 269 7840

Information leaflets for patients such as: "Understanding and Managing Pain:  
Information for Patients" & "Spinal Cord Stimulation for Chronic Pain:  
Information for Patients".

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### Other leaflets in the series:

Back Pain Fibromyalgia Headache  
Trigeminal Neuralgia Arthritis Diabetes Pain Phantom Limb Pain Shingles &  
PHN Cancer Pain  
Pain after Stroke Sciatica Opioids for chronic pain  
Chronic pain & sex Drugs for nerve pain  
Complex Regional Pain Syndrome

**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.**

*This leaflet 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)*



**PAIN RELIEF FOUNDATION**

[www.painrelieffoundation.org.uk](http://www.painrelieffoundation.org.uk)

# PAINFUL DIABETIC NEUROPATHY

## WHAT IS DIABETIC NEUROPATHY?

- Diabetes is a very common condition and the number of people with diabetes is increasing. It is more common in the elderly. It is a disorder in which blood sugar levels are too high because the body cannot use the glucose properly. Levels need to be controlled using diet, tablets or insulin.
- In longstanding diabetes, especially with poor control of blood sugar levels, complications are more common. Hyperglycaemia (increased levels of blood sugar) can cause damage to nerves. This damage is called neuropathy. There are several different kinds of neuropathies, which can affect people with diabetes.
- The most common form of diabetic neuropathy affects the longest nerves which send messages about touch, pain and temperature sensations to the brain from the feet and lower legs. In some people it can affect the hands as well.
- Diabetic neuropathy can also be painful and up to 15% of people with diabetes have chronic neuropathic pain.
- Numbness in the feet, tingling, burning or pins and needles, can be the first symptoms of diabetic neuropathy. Loss or reduction of feeling can lead to unnoticed damage to the foot e.g. scalding when getting into a hot bath or rubbing from shoes. Foot ulceration and infections are more common in people with neuropathy.
- It is very important that people with diabetic neuropathy look after their feet. Therefore, you should check your feet every day to ensure that you have not damaged them

- THE PAIN OF DIABETIC NEUROPATHY IS A NERVE PAIN SOMETIMES DESCRIBED AS A DEEP DULL ACHE, OR WITH BURNING, STABBING OR SHOOTING PAIN, USUALLY IN THE LOWER LEG AND FEET. INCREASED SENSITIVITY TO TOUCH AND HEAT CAN CAUSE PAIN. SYMPTOMS ARE OFTEN WORSE AT NIGHT OR WHEN RESTING.

#### **WHAT CAUSES DIABETIC NEUROPATHY?**

- THERE IS STILL NO DEFINITE PROOF OF THE CAUSE OF DIABETIC NEUROPATHY. HOWEVER, THERE IS A LINK BETWEEN HIGH BLOOD SUGAR LEVELS AND NERVE DAMAGE ALTHOUGH THIS IS NOT FULLY UNDERSTOOD. LACK OF OXYGEN AND REDUCED BLOOD SUPPLY TO THE NERVES IN THE EXTREMITIES, CAUSED BY DAMAGE TO THE SMALL BLOOD VESSELS, WHICH SUPPLY THESE NERVES, MAY BE INVOLVED.

#### **TREATMENT**

- THE FIRST PRIORITY IN TREATING DIABETIC NEUROPATHY IS TO STABILIZE YOUR BLOOD SUGAR LEVELS IF POSSIBLE, WITH THE HELP OF YOUR GP OR DIABETES CLINIC IF NECESSARY.
- IN ADDITION IT IS IMPORTANT TO TAKE SPECIAL CARE OF YOUR FEET. TRY TO PROTECT YOUR FEET FROM INJURY BY WEARING COMFORTABLE, WELL FITTING SHOES ALL THE TIME. USE A CHIROPODIST FOR ROUTINE FOOT CARE, ESPECIALLY IF YOU HAVE NUMBNESS IN THE FEET.
- THERE IS NO CURE FOR DIABETIC NEUROPATHY BUT TREATMENT CAN SLOW DOWN THE PROGRESSION OF THE DISEASE AND HELP THE PAIN. EARLY DIAGNOSIS AND TREATMENT IS BENEFICIAL.

#### **DRUG TREATMENT**

- ORDINARY PAINKILLERS SUCH AS ASPIRIN, PARACETAMOL, CODEINE AND IBUPROFEN MAY SOMETIMES BE HELPFUL, BUT OFTEN DO NOT EASE THE PAIN.
- ANTIDEPRESSANT DRUGS: TRICYCLIC ANTI-DEPRESSANTS (TCAS) EG. AMITRIPTYLINE, 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 IS OFTEN POSSIBLE TO GET THE RIGHT BALANCE BETWEEN SIDE EFFECTS AND PAIN RELIEF SO THAT THEY ARE OF BENEFIT.
- SNRIS (SELECTIVE NORADRENALINE REUPTAKE INHIBITORS) DULOXETINE (CYMBALTA®). IS EFFECTIVE FOR PAINFUL DIABETIC NEUROPATHY. SNRIS ARE NOT RECOMMENDED FOR UNDER 18 YEAR OLDS.

- ANTI-EPILEPTIC DRUGS SUCH AS GABAPENTIN OR PREGABALIN (LYRICA®) CAN ALSO BE USEFUL FOR NERVE PAIN. OTHER ANTICONVULSANT DRUGS MAY ALSO HELP. YOU MAY HAVE SIDE EFFECTS, SUCH AS TIREDNESS.
- ALL THESE DRUGS MUST BE TAKEN REGULARLY FOR THEM TO WORK AND NOT JUST WHEN THE PAIN IS BAD. THEY MAY TAKE UP TO 3 WEEKS TO WORK AND THEY WILL PROBABLY NEED TO BE TAKEN FOR A LONG TIME.
- YOU MAY NEED TO TAKE MORE THAN ONE KIND OF DRUG. YOUR DOCTOR WILL TRY TO FIND THE BEST COMBINATION FOR YOU.

#### **OTHER TREATMENT**

- TOPICAL CAPSAICIN CREAM CAN BE USEFUL FOR SOME PEOPLE. IT IS APPLIED TO PAINFUL AREAS OF THE FEET AND LEGS. CAPSAICIN IS EXTRACTED FROM PEPPERS (CAPSICUMS). HOWEVER, IT MAY CAUSE SEVERE BURNING PAIN WHEN IT IS APPLIED AND MAY NOT BE TOLERATED BY EVERYONE. THIS BURNING EFFECT STOPS AFTER ABOUT 2 WEEKS.
- ALTERNATIVE THERAPIES CAN SOMETIMES HELP, SUCH AS ACUPUNCTURE.
- PSYCHOLOGICAL SUPPORT AND PAIN MANAGEMENT PROGRAMMES MAY BE USEFUL IN SOME PEOPLE.
- ATION CAN HELP RELIEVE THE PAIN IF IT IS MADE WORSE BY STRESS AND ANXIETY. RELAXATION TAPES, WARM BATHS OR SOOTHING MUSIC MAY ALL HELP.

#### **STIMULATION THERAPY**

- THERE IS SOME EVIDENCE THAT TRANSCUTANEOUS ELECTRICAL NERVE STIMULATION (TENS) MAY HELP SOME PATIENTS. THIS TREATMENT, USING ELECTRODES PLACED ON THE PAINFUL AREA, CAUSES A TINGLING SENSATION, WHICH MAY REDUCE THE PAIN.
- THERE IS SOME EVIDENCE BASED ON A SINGLE TRIAL, THAT SPINAL CORD STIMULATION (SCS) CAN BE A VERY EFFECTIVE TREATMENT FOR PAINFUL DIABETIC NEUROPATHY IN A FEW PEOPLE. AN ELECTRICAL STIMULATOR IS IMPLANTED UNDER THE SKIN AND AN ELECTRODE IS PLACED NEXT TO THE SPINAL CORD. THIS TREATMENT IS ONLY AVAILABLE IN A FEW SPECIALIST CENTRES, FOR SUITABLE PATIENTS IN WHOM ALL OTHER TREATMENTS HAVE BEEN INEFFECTIVE.