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The British Pain Society, 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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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

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, Fax. 0151 529 5821, Email: secretary@painrelieffoundation.org.uk

Other leaflets in the series:

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Pain after stroke	Complex regional Pain Syndrome
Headache	Opioids for chronic pain
Drugs for nerve pain	Over the counter medicines for pain
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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.



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.
- * See drugs for nerve pain leaflet*

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.

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.