Peripheral Neuropathy is a broad term that describes any changes to the nerves and their function in the body’s extremities, most commonly the feet and the legs. This means the nerves affected don’t work properly.

There are many causes of Peripheral Neuropathy including:

- In Multiple Myeloma, the myeloma cells produce paraprotein which can deposit in the nerves, causing damage to the nerve cells.
- Treatments such as Thalidomide (Thalomid), Bortezomib (Velcade), can damage the nerve cells particularly when given in high doses for prolonged periods.
- Shingles (a common viral infection) can cause neuropathic pain (nerve pain) and changes in sensation in the affected area(s).
- Diabetes, vitamin deficiency and a history of high alcohol consumption may also contribute to the symptoms of peripheral neuropathy.

For some people it is possible to have more than one cause e.g., having diabetes and Multiple Myeloma.

There are three main types of Peripheral Neuropathy; these are not mutually exclusive and can often overlap.

**Sensory Neuropathy** – this leads to loss of temperature, increased pain and altered pressure sensations. It can result in a general sense of numbness, especially in the hands and feet. Painful neuropathy comes under this category. This can be the most disturbing and uncomfortable for people, it may be described as ‘pins & needles,’ ‘shooting pains,’ ‘hypersensitive to touch’ or pain that will not go away.

**Autonomic Neuropathy** – this leads to changes in sweat glands, moisture and texture in the skin. There can also be an inability to control muscles that expand or contract blood vessels to maintain safe blood pressure levels. This can lead to a lowered blood pressure with symptoms of dizziness, light-headedness, or even fainting when a person moves suddenly from a seated to a standing position. If the nerves located in the gut are affected then this can lead to diarrhoea, constipation or incontinence.

**Motor Neuropathy** – this can lead to a loss of motor function, muscle weakness, decreased foot stability, painful cramps, muscle wasting and altered foot structure.
**FACT SHEET**

Peripheral Neuropathy

**Treatment**
The key to management lies in removing or reducing the cause whilst treating the symptoms. It is very important that you report any symptoms of neuropathy immediately to your doctor. If it is related to drug therapy then the drug may need to be stopped or reduced in dose. This does not always lead to an immediate reduction in symptoms.

**Treating Pain**
Medication may help reduce pain in the feet, legs, and arms. They usually do not bring back full sensation. Some over the counter painkillers may help e.g. paracetamol. Your doctor may prescribe medication that is used to treat other medical problems, such as epilepsy (anti epileptic drugs) or depression, but can have an effect on neuropathic pain.

The drugs to prevent seizures include gabapentin, pregabalin, phenytoin, and carbamazepine. The antidepressant drugs may include amitriptyline or duloxetine. Injections of local anaesthetic such as lignocaine or topical patches containing lignocaine may relieve more intractable pain. Your doctor may refer you to a pain specialist or neurologist.

Active and passive forms of exercise can reduce cramps, improve muscle strength, and prevent muscle wasting in affected limbs. Massage may improve circulation which can reduce pain.

**Supplements**
Supplements that may be helpful in managing the symptoms of neuropathy:
- Vitamin B complex that includes B1, B6, B12 and folic acid
- Magnesium
- Amino acids: Acetyl-L-carnitine, Alpha-lipoic acid
- Fish oils: Omega 3 fatty acids (EPA and DHA), flaxseed oil

We advise that you discuss taking any supplements with your doctor to ensure they are safe and do not interact with other medicines.

**Safety**
Safety is important for people with nerve damage to reduce the risk of falls and other injuries:
- Wear well fitted shoes at all times to protect your feet from injury
- Check bathwater temperature with your elbow before putting your feet in the water
- Avoid putting pressure on areas with nerve damage for too long
- Keep skin in good condition with a moisturiser; cocoa butter can be helpful
- Take good care of your feet and regularly trim nails (an appointment with a podiatrist may be useful)
- If possible, stop smoking as it can worsen neuropathic symptoms
- If experiencing low blood pressure, to reduce the effect of dizziness and a potential fall, gradually change positions from lying to standing, then sitting to standing, with time spend sitting. Ted stockings can also be useful.