Nerve damage

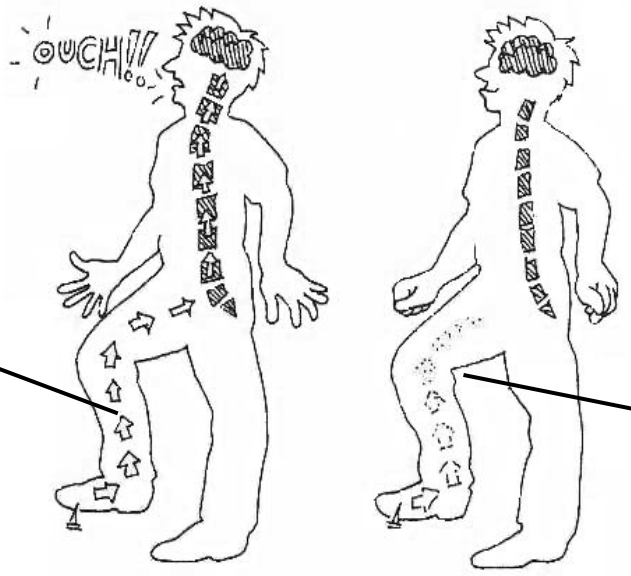
How do nerves work?

The nerves of the body are part of a wonderful and complex information system that is a bit like a very large telephone exchange. Messages sent by one part of the body are carried by nerve fibres to the spinal cord in the backbone and finally to the brain where they are interpreted.

Not surprisingly things can go wrong. High blood glucose levels can cause nerve damage by affecting the vessels supplying blood or by affecting the chemistry within nerve fibres. Both forms of damage affect the transfer of information. (Blood vessel damage also means nerves do not get as much oxygen and nutrients as they need.) This nerve damage is called **neuropathy.**

No Neuropathy

Nerves intact – sensation travels from foot to brain and registers pain response.



Neuropathy

Nerve damage – sensation does not travel to brain – no response.

Types of nerve damage

There are two main types of nerve damage: peripheral and autonomic.

Peripheral nerve damage

Occurs in the nerves of the feet and you experience:

- numbness or lack of sensitivity to pain, pressure or temperature
- tingling, burning or prickling
- sharp pains or cramps
- extreme sensitivity to touch
- loss of coordination and balance.

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Autonomic nerve damage

Affects the nerves that go to the heart and internal organs.

Different functions that may be affected are:

- bladder – you may have difficulty knowing when the bladder is full or in controlling it
- male sexual organs – you may experience impotence (unable to achieve erection)
- stomach and digestion – you may experience indigestion, belching, nausea or vomiting. You may also experience alternating constipation and diarrhoea. Eating small, frequent meals, less fibre and avoiding fats may help.
- heart and blood pressure – blood pressure may drop when you sit or stand quickly causing dizziness or light headedness. You may not perceive pain from heart disease so report any unusual shortness of breath to your doctor.
- sweating – if the nerves controlling sweating are damaged the body may find it difficult to regulate temperate, or you may have unexpected profuse sweating at night or while eating.

Hypoglycaemia

Nerve damage can make it difficult for the body to respond to low blood glucose (hypoglycaemia). You may not recognise that you are having a hypo so check blood glucose levels regularly.

What can be done?

Monitor blood glucose levels carefully and try and get them as close to normal as possible. Take special care of your feet which are especially vulnerable.

To help prevent worsening of your symptoms:

- discuss symptoms with your doctor or diabetes educator as there may be treatment available
- you may need your diabetes treatment reassessed.

People with diabetes need to take special care of their feet:

- get your feet checked so you know if you are at increased risk (checking can be done by any doctor, diabetes educator or podiatrist)
- wash and inspect your feet daily
- wear well fitted footwear
- protect your feet
- if you have any problems, consult a health professional.

For more information

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