

Peripheral neuropathy

Peripheral nerves carry information to and from the brain. They also carry signals to and from the spinal cord to the rest of the body. Peripheral neuropathy means these nerves don't work properly in the arms, hands, legs and feet. Peripheral neuropathy may be damage to a single nerve. It may be damage to a nerve group. It may also affect nerves in the whole body.

Causes:

Neuropathy is very common. There are many types and causes. Often, no cause can be found. Some nerves diseases run in families. Diabetes is the most common cause of this type of nerve problem. High blood sugar levels over a long time can damage your nerves.

Other health conditions that may cause neuropathy are:

- Autoimmune disorders such as rheumatoid arthritis or lupus
- Chronic kidney disease
- HIV
- Liver infections
- Low levels of vitamin B12
- Metabolic disease
- Poisoning due to heavy metals, such as lead
- Poor blood flow to the legs
- Underactive thyroid gland

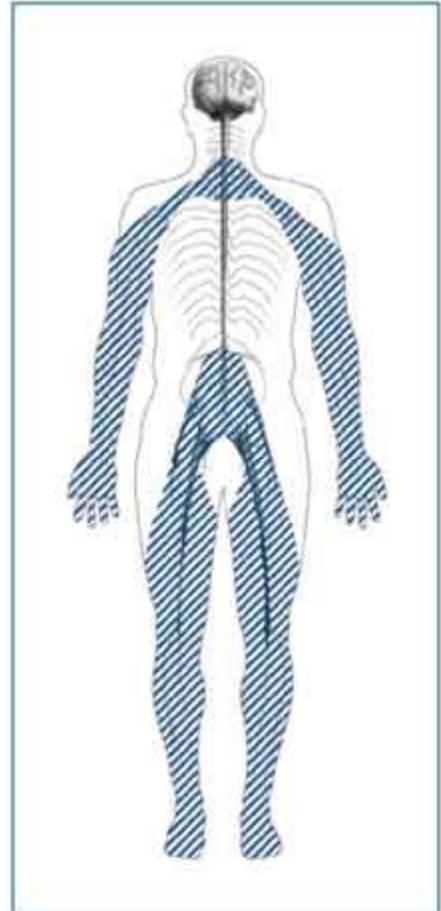
Other things that can lead to nerve damage are:

- Broken bone that affects a nerve
- Long-term, heavy alcohol use
- Glue, lead, mercury, and solvent poisoning
- Drugs that treat infections, cancer, seizures, and high blood pressure
- Pressure on a nerve, such as carpal tunnel syndrome
- Being exposed to cold temperatures for a long period of time
- Pressure from bad-fitting casts, splints, a brace, or crutches

Symptoms:

Symptoms depend on the nerve that is damaged. Symptoms also depend on whether the damage affects one nerve, several nerves, or the whole body.

- **PAIN AND NUMBNESS:**
 - Tingling or burning in the arms and legs may be an early sign of nerve damage. These feelings often start in your toes and feet. You may have deep pain. This often happens in the feet and legs.



- You may lose feeling in your legs and arms. Because of this, you may not notice when you step on something sharp. You may not notice when touch something that is too hot or cold, like the water in a bathtub. You may not know when you have a small blister or sore on your feet.
- **MUSCLE PROBLEMS:**
 - Damage to the nerves can make it harder to control muscles. It can also cause weakness. You may notice problems moving a part of your body. You may fall because your legs buckle. You may trip over your toes.
 - Doing tasks such as buttoning a shirt may be harder. You may also notice your muscles twitch or cramp. Your muscles may become smaller.
- **PROBLEMS WITH BODY ORGANS:**
 - People with nerve damage may have problems digesting food. You may feel full or bloated and have heartburn after eating only a little food. Sometimes you may vomit food that has not been digested well. You may have either loose stools or hard stools. Some people have problems swallowing.
 - Damage to the nerves to your heart may cause you to feel lightheaded, or faint, when you stand up.
 - Angina is the warning chest pain for heart disease and heart attack. Nerve damage may "hide" this warning sign. You should learn other warning signs of a heart attack. They are sudden fatigue, sweating, shortness of breath, nausea, and vomiting.
- **OTHER SYMPTOMS OF NERVE DAMAGE:**
 - Some people may not be able to tell when their blood sugar gets too low.
 - Bladder problems. You may leak urine. You may not be able to tell when your bladder is full. Some people are not able to empty their bladder.
 - You may sweat too much. This may happen when the temperature is cool, when you are at rest, or at other unusual times.

Exams and Tests:

The doctor or nurse will examine you and ask questions about your health history and symptoms. Blood tests may be done to look for causes of nerve damage.

You may also have tests to:

- Check activity in muscles
- See how fast signals travel along nerves
- Look at a sample of a nerve under a microscope

Treatment:

Treating the cause of nerve damage, if known, may improve your symptoms. People with diabetes should learn to control their blood sugar. If you use alcohol, stop. Your medicines may need to be changed. Do not stop taking any medicine before talking to your health care provider. Replacing a vitamin or making other changes in your diet may help. If you have low levels of B12 or other vitamins, your doctor may recommend supplements or injections.

You may need surgery to remove pressure from a nerve. You may have therapy to learn exercises to get better muscle strength and control. Wheelchairs, braces, and splints may improve movement or the ability to use an arm or leg with nerve damage.

- **SETTING UP YOUR HOME**
 - Safety is very important for people with nerve damage. Nerve damage can increase the risk of falls and other injuries.
 - Remove loose wires and rugs from areas you walk through. Do not keep small pets in your home. Fix uneven flooring in doorways.
 - Have good lighting. Put handrails in the bathtub or shower and next to the toilet. Place a slip-proof mat in the bathtub or shower.
- **WATCHING YOUR SKIN**
 - Wear shoes at all times to protect your feet from injury. Before you put them on, always check inside your shoes for stones, nails, or rough areas that may hurt your feet.
 - Check your feet every day. Look at the top, sides, soles, heels, and between the toes. Wash your feet every day with lukewarm water and mild soap.
 - Check bathwater temperature with your elbow before putting your feet in the water.
 - Avoid putting pressure on areas with nerve damage for too long.
- **TREATING PAIN**
 - Medicines may help reduce pain in the feet, legs, and arms. They usually do not bring back loss of feeling.
 - You may take pain pills. Medicines used to treat other medical problems, such as seizures or depression, can also help manage the pain. Use the lowest dose possible to avoid side effects.
 - Your doctor may refer you to a pain specialist. Talk therapy may help you better understand how your pain is affecting your life. It can also help you learn ways to better cope with pain.
- **TREATING OTHER SYMPTOMS**
 - Wearing elastic stockings may help treat low blood pressure and fainting. So can sleeping with your head raised. Some medicines may also help.
 - Your health care provider may give you medicines to help with problems going to the bathroom. Eating small frequent meals may help.
 - There are ways to help bladder problems. You can learn exercises to strengthen your pelvic floor muscles. You may need to use a thin tube that is inserted into your bladder (urinary catheter). You may take medicines.

Outlook (Prognosis):

How well you do depends on the cause of nerve damage.

Some nerve-related problems do not interfere with daily life. Others get worse quickly and may lead to long-term, severe symptoms and problems.

When a medical condition can be found and treated, your outlook may be excellent. But sometimes, nerve damage can be permanent, even if the cause is treated. Long-term (chronic) pain can be a major problem for some patients. Numbness in the feet can lead to skin sores that do not heal. Rarely, numbness in the feet may lead to amputation. There is no cure for most neuropathies passed down in families.

When to Contact a Medical Professional:

Call your health care provider if you have symptoms of nerve damage. Early treatment increases the chance of controlling symptoms and preventing more problems.

Prevention:

You can prevent some causes of nerve damage.

- Drink alcohol in moderation.
- Follow a balanced diet.
- Keep good control over diabetes and other medical problems.
- Learn about chemicals used at your workplace.