
Pins and needles

Summary

- 'Pins and needles' is a sensation of tingling or prickling, usually felt in the hands or feet, that can be uncomfortable.
 - A common cause is leaning awkwardly on a limb, which can compress nerves.
 - Pins and needles can be replaced by numbness if compression is prolonged and the person does not change position.
 - Persistent pins and needles or numbness may be symptomatic of more serious conditions, such as nerve disease or nerve inflammation.
 - Always see your doctor if you experience persistent or frequent episodes of pins and needles or numbness.
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'Pins and needles' (paresthesia) is a sensation of tingling or prickling, usually felt in the hands or feet, that many people find uncomfortable.

A common cause is leaning or lying awkwardly on a limb, which can compress an underlying nerve. Compression reduces blood supply within the nerve. Eventually, the limb can become numb if nerve compression is sustained. This is often described as the area having 'fallen asleep'.

Changing position and relieving the compression quickly restores normal blood supply to the compressed nerve. Any numbness that has occurred is replaced by a tingling and prickling sensation, as the nerves start sending messages again to the brain and spinal cord. Finally, the numbness is relieved as blood supply is returned to normal.

In some cases, pins and needles are caused by nerve damage or certain disorders of the central nervous system. Always see your doctor if you experience frequent or persistent bouts of pins and needles.

Symptoms of pins and needles

The symptoms of pins and needles include:

- prickling and tingling sensation on the skin
- hands and feet are usually affected.

Causes of pins and needles

Pins and needles can be caused by a wide range of events and conditions, including:

- pressure on nerves
- pinched nerves
- neuritis
- nerve disease (neuropathy)
- reduced blood supply
- nerve injury
- hyperventilation or breathing excessively
- the effect of toxic substances on the nerves, such as alcohol or lead
- certain medications
- diabetes
- multiple sclerosis

- hypothyroidism (underactive thyroid gland)
- transient ischaemic attack (TIA)
- stroke
- other diseases that affect the nervous system.

Pressure-related pins and needles

The peripheral nerves of the body (those in the limbs) send information back to the brain and spinal cord. When a nerve is pressed by a cramped or awkward position, the blood supply is reduced causing pins and needles.

If this pressure is maintained, the affected limb becomes numb, which is often described as the nerve 'falling asleep'. This simply means the sensory messages back to the brain and spinal cord are temporarily blocked.

Once pressure is taken off the nerve, the blood supply resumes and normal nerve function returns. The uncomfortable and temporary prickling sensation that occurs when pressure is taken off the nerve is part of this process.

Pinched nerve

Nerves can be pinched in many locations in the body. Some examples include:

- **carpal tunnel syndrome** – the main nerve that services the hand runs through a tunnel in the wrist. For various reasons, the pressure in the tunnel can increase. This reduces the amount of room inside the wrist and compresses the nerve. Symptoms include pins and needles, pain, and weakness of some hand muscles
- **cervical nerve root irritation** – small nerves in the neck pass through small holes between the vertebrae. These small holes can be narrowed by injury, or outgrowths of bone tissue (bone spurs). In severe cases, the narrowing can compress the small nerves, causing pins and needles and sometimes pain that radiates into the arm. This is often called referred pain
- **sciatica** – small nerves in the low back pass through small holes between the vertebrae. These nerves join to form bigger nerves that descend into the legs. One of these is the sciatic nerve. Just as for the neck, the small nerves can be compressed by bone spurs, injury, or injured 'discs' that lie between the vertebrae. Sometimes a disc bulges out and presses against one of the small nerves (roots) that become the sciatic nerve, causing pins and needles and referred pain down the leg. These symptoms are often described as 'sciatica'.

Neuritis

Neuritis is inflammation of a nerve. One of the symptoms of neuritis is pins and needles. There are many causes, some of which include:

- **brachial neuritis** – nerves in the area of the neck and shoulder can become inflamed causing severe pain and weakness of shoulder or upper limb muscles
- **Guillain-Barre syndrome** – thought to be triggered by some kinds of viral and bacterial infection. Nerves throughout the body are affected resulting in severe weakness that can affect the muscles required for breathing.

Nerve disease

Nerve disease, or neuropathy, is characterised by disruption of normal messaging in a nerve (conduction) due to nerve damage. For example, a person with neuropathy may not experience pain to the normal degree, if at all. They also might have altered sensation so that they have difficulty feeling normal touch or temperature. If the motor nerves are affected, they might also have difficulty with normal movement.

Conditions that may cause damage to the nerves include:

- **Diabetes**
- **Charcot-Marie-Tooth** inherited neuropathy
- exposure to certain drugs and heavy metals, such as lead
- **chronic overconsumption of alcohol.**

Seeking medical advice for pins and needles

The occasional bout of pins and needles is a harmless event if it is due to pressure on nerves from sustained postures or sleeping positions. However, chronic pins and needles (persistent over more than three months) can be a warning of some other underlying disorder. Always see your doctor for a thorough medical investigation if you experience persistent or frequent episodes of numbness or pins and needles.

Treatment for pins and needles

Treatment for pins and needles depends on the cause. For example:

- Carpal tunnel syndrome may be treated with rest from the aggravating activity and wearing a splint for the wrist. For persistent cases, surgery might be required.
- A nerve pinched by bone or some other tissue in the neck or low back may require treatment such as physiotherapy or (in some cases) surgery to address the cause and allow full nerve functioning to resume.
- Underlying conditions such as diabetes need to be properly controlled to ease associated symptoms, including pins and needles.
- The symptoms of nerve inflammation and damage caused by chronic overconsumption of alcohol generally improve once the person stops drinking. However, any condition that has been left too long can leave permanent effects.

For persistent symptoms, it is important that you seek professional help early for assessment and treatment.

Where to get help

- Your doctor
- Physiotherapist
- **Australian Physiotherapy Association**. Tel. 1300 306 622

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