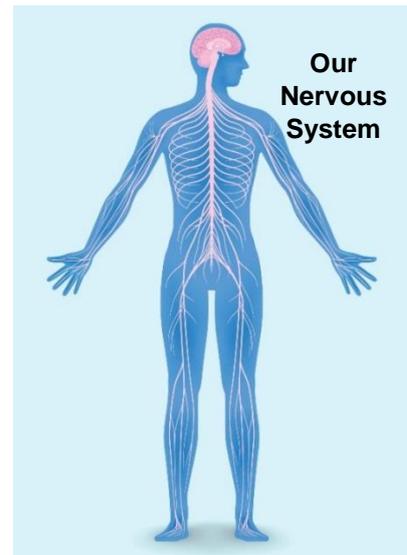


# Tingling or Numbness in Hands/Feet (Peripheral Neuropathy)

Our nervous system is made up of 2 parts: the central nervous system and the peripheral nervous system. The central nervous system consists of our brain and spinal cord, while the peripheral nervous system is made up of all the other nerves. These nerves send information between our brain and our body, and helps us with our sensations, movements and certain bodily functions. When our peripheral nerves are damaged, it results in a condition called “peripheral neuropathy”.



## ***Causes of Peripheral Neuropathy***

- **Cancers** can affect peripheral nerves by growing into or around it, disrupting its function
- Some **surgical procedures** may cause peripheral neuropathy by either causing direct or indirect damage to the peripheral nerves in the course of the surgery e.g. removing a tumour in a bodily area where many or important nerves track
- Some **chemotherapy medicines** can cause peripheral neuropathy as a side effect by damaging the cells of peripheral nerves. Common chemotherapies that are known to cause peripheral neuropathy include: paclitaxel, docetaxel, oxaliplatin, carboplatin, cisplatin, and vincristine
- **Radiation therapy** can cause peripheral neuropathy by radiation induced damage to nerves tracking close to or through a radiation field in the course of treatment
- **Other conditions not related to cancer or its treatment**, e.g. diabetes, immune system disease, kidney problems, thyroid problems, HIV, hereditary nerve diseases

### ***What you need to look out for***

Although it may not be possible to prevent peripheral neuropathy in the course of cancer treatment, we can prevent it from worsening. This is why it is important to inform your doctor or nurse once you experience any new symptoms. Depending on the nerve involved, you may notice changes in your sensations, movements or bodily functions, which may manifest as any of the following:

- “Pins-and-needles”, numbness, or tingling in your hands and feet, that may spread to your arms and legs
- Pain or cramping in your hands or feet
- Loss of sensation, or hypersensitivity to touch or temperature (hot or cold)
- Loss of balance, clumsiness or difficulty walking
- Difficulty in picking up a coin, opening jars or buttoning your shirt
- Difficulty in swallowing or breathing
- Problems with passing motion (constipation, diarrhoea) or urination (leaking urine, difficulty emptying bladder)
- Feeling dizzy or faint, especially when getting up from a sitting or lying position
- Changes in vision or hearing
- Problems with sweating (too much or too little)
- Problems with sexual functions (unable to get erection or reach orgasm)

### ***How it can be treated***

Treatment depends on the cause and the related problems. In some cases, you may need to stop your anti-cancer treatment to prevent further nerve damage and stop problems from getting worse. Full recovery can take months to years. However, sometimes the condition may be more difficult to treat and will require long-term management. Common treatments for peripheral neuropathy include:

- **Medicines.** Pain from peripheral neuropathy can be relieved by medicines such as anti-inflammatory medicines, certain types of antidepressants (e.g. duloxetine), as well as painkillers which may come in the form of pills, creams or patches.
- **Physical rehabilitation** - Your doctor may refer you to a rehabilitation physician who works closely with physiotherapists and occupational therapists through a neuropathy rehabilitation program, to prescribe exercises or methods to improve your balance and help you cope with your daily activities. The rehabilitation team may also advise on the use of complementary treatments such as transcutaneous electrical nerve stimulation (TENS) and acupuncture to help reduce pain.

## What you can do

Below are some tips you may find helpful, in managing peripheral neuropathy.

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<p><b>Keeping yourself safe</b></p> <ul style="list-style-type: none"><li>• Prevent falls. Keep living areas well lit, install and use handrails where needed, use anti-slip mats, and remove rugs / clutter / spilled water that can cause you to slip and fall</li><li>• Use a cane or walker to move around if you encounter difficulties in balance</li><li>• Be careful when handling sharp, hot or dangerous objects especially if your fingers feel numb. Wear padded gloves when you pick up hot pots and pans, or when you reach into the oven</li><li>• Use non-breakable dishes if case you drop one, and wear rubber gloves when washing dishes for better grip</li><li>• Ask someone to check the shower or bath water temperature to ensure it is not too hot, to prevent burning yourself</li><li>• Protect your feet, especially if they are numb or have less feeling than usual. Always wear well-fitting, non-skid shoes with rubber soles</li></ul>	<ul style="list-style-type: none"><li>• Avoid shoes with slippery and thick soles, especially when your sense of balance or muscle strength is affected</li><li>• Avoid driving unless you can feel the gas, brake pedals and steering wheel, and can quickly move your foot from the gas pedal to the brake pedal</li></ul>
<p><b>Lifestyle</b></p> <ul style="list-style-type: none"><li>• Try out relaxation techniques such as listening to music, meditation or yoga to help with pain relief</li><li>• Gentle massage to your hands and feet may help improve circulation and soothe discomfort</li></ul>	<ul style="list-style-type: none"><li>• Avoid alcohol</li><li>• Avoid smoking. Cigarette smoking is bad for the circulation and increases the risk of problems with your extremities.</li></ul>

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| <ul style="list-style-type: none"><li>• If you have diabetes, ensure good sugar control to decrease risk of additional nerve damage</li><li>• Do light exercises as tolerated, to strengthen your muscles</li></ul> | <ul style="list-style-type: none"><li>• Refrain from activities that require precise handwork (e.g. operating power tools or needlework) until you recover from the neuropathy</li></ul> |
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### ***When to call your cancer care team***

Please inform your doctor or nurse as soon as you notice any symptoms of peripheral neuropathy as mentioned above, or **if your symptoms worsen.**

If you have any questions regarding the above, please call the Cancer Helpline at **+65 6225 5655** or approach your doctor or nurse for further details.

*The above contents are made available as part of TEMASEK FOUNDATION-ACCESS (Accessible Cancer Care to Enable Support for Survivors) PROGRAMME, a holistic care programme to support cancer patients during their care and recovery journey.*

*The contents have been approved by the Cancer Education Information Service, National Cancer Centre Singapore (NCCS), for people with cancer and their families and caregivers. However, this information serves only as a guide and should not be used as a substitute for medical diagnosis, treatment or advice. For specific medical conditions, please seek expert medical advice from your healthcare team.*

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