



DR VANESSA SAMMONS

NEUROSURGEON



Guide to

COMMON PERONEAL NERVE PALSY

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KEY FACTS

- Common Peroneal Nerve Palsy is a treatable dysfunction that occurs when the common peroneal nerve is compressed in the fibular tunnel, a passageway for the nerve located in the leg at the knee
- It can be caused by knee injury, fracture, a prior history of knee trauma, and certain medical conditions; it can also occur for no known reason
- Symptoms of common peroneal nerve palsy include pain, tingling and numbness at the top of the foot and side of the leg, as well as weakness and difficulty lifting the front part of the foot commonly known as foot drop
- The condition can be treated with rest, splinting, anti-inflammatory medication, and surgery, depending on the cause and severity
- Surgical recovery takes two to four weeks, with the return of muscle function and the relief of symptoms improving over many months

WHAT IS THE COMMON PERONEAL NERVE?

The common peroneal nerve is a branch of the sciatic nerve. It controls leg muscles that move the foot upwards (like taking the foot off the accelerator) and ankle and toes outward. The nerve also signals sensation to the side of the leg and the top of the foot.

WHAT IS A COMMON PERONEAL NERVE PALSY?

Common Peroneal Nerve Palsy is a condition characterised by numbness, pain, weakness, and foot drop.

WHAT ARE THE SYMPTOMS OF PERONEAL NERVE PALSY?

Symptoms include:

- Pain, weakness and/or numbness in the top of the foot or shin
- Inability to move the foot properly in all directions
- Inability to point the toes upward

WHAT CAUSES COMMON PERONEAL NERVE PALSY?

There are known causes of common peroneal nerve palsy, but often there is no identifiable cause other than an anatomical compression by tight tissue where the nerve runs.

- Direct trauma can injure the nerve
- Scarring after trauma can cause compression of the nerve
- The nerve can be compressed by a nerve sheath tumour
- The nerve can be compressed by a cyst
- Hip/knee replacement surgery can directly injure the nerve or cause scarring that can compress the nerve
- Knee dislocation/fracture can cause nerve injury

Underlying medical conditions including Parkinson's disease, a herniated lumbar disc, and Motor Neurone Disease can cause symptoms similar to common peroneal nerve palsy. It's important to be evaluated by an expert who can accurately diagnose the origin of your symptoms.

WHEN SHOULD I CONSULT A DOCTOR?

See a doctor if you are experiencing symptoms that may be a sign of peroneal nerve injury. Nerve compression can worsen if not treated. You should be seen right away if:

- You have trauma to the knee or leg
- You experience pain, weakness or numbness on the top of your foot or shin
- You have loss of mobility in the foot

Even if your symptoms are modest, it's wise to arrange for a consultation. An underlying medical condition may be the cause, and early diagnosis of any

condition that can lead to a more beneficial treatment outcome is important. If there is weakness, then early treatment has the best chance of restoring normal leg function.

HOW IS COMMON PERONEAL NERVE PALSY DIAGNOSED?

A discussion of your medical history and physical examination are the first steps. Next, in order to assess the extent of nerve compression more fully, your doctor may recommend:

- **Electromyography** – to measure muscle activity and response to stimulation
- **Nerve conduction study** – to assess the speed and quantity of conduction of an electrical impulse through the affected nerve
- **MRI** – to assess the anatomy of the nerve and surrounding tissues

Tests for common peroneal nerve palsy are generally well-tolerated by patients.

WHAT ARE THE TREATMENTS FOR COMMON PERONEAL NERVE PALSY?

Treatment will be based upon the degree of impairment and the location where the damage has occurred. For milder cases, non-surgical treatments may include:

- Brace
- Custom insoles for shoes (orthotics)
- Physical therapy
- Rest

If the dysfunction is moderate to severe, conservative treatments are likely to be insufficient to resolve the problem.

WHAT IS COMMON PERONEAL NERVE DECOMPRESSION SURGERY?

Nerve decompression of the common peroneal nerve (also called fibular tunnel release) is performed under general anaesthesia. During the one-hour procedure, an incision is made along the outer side of the knee. This provides access to the site of entrapment or compression that is then released. When the procedure is complete, the wound is closed with dissolving stitches and bandaged. Patients return home the same day.

In one of the largest studies of people with common peroneal nerve palsy, researchers reported, “Post-operative recovery of motor function was good in 87% of those who had sensory and motor involvement preoperatively.”

WHAT CAN I EXPECT AFTER COMMON PERONEAL NERVE DECOMPRESSION SURGERY?

When surgery is complete, you will be taken to a recovery room for observation. You will likely feel drowsy when you wake up. As the anaesthesia leaves your system, you may feel pain at the incision site. Over-the-counter or prescription medication will be recommended to help ease the discomfort. When you are fully awake and able to demonstrate that you can walk, you will be released into the care of your family member or friend.

WHAT SHOULD I DO AFTER SURGERY?

Before you leave for home, Dr Sammons will provide you with a list of guidelines to follow. It's important you follow these instructions to help ensure your recovery is problem-free. Among the things you may be asked to do:

- **Use crutches** as needed (most people don't need them)
- **Begin light walking** as soon as it's comfortable and with Dr Sammons' input
- **Keep your wound dry** for one week after surgery
- **Refrain from strenuous leg activity** such as running for six weeks
- **Monitor your progress.** Should you experience an increase in pain or swelling prior to your follow-up appointment, contact us immediately
- **Attend follow-up appointments**

Age, underlying health and the severity of the common peroneal nerve palsy all factor into your recovery time. Symptoms will begin to resolve immediately, but nerve injuries heal gradually. Full recovery may take as long as six months.

SHOULD I FOLLOW UP WITH DR SAMMONS AFTER SURGERY?

You should. A practice nurse will be in touch with you during the week following your surgery. Your first follow-up will be scheduled approximately six weeks after surgery. If, you have any concerns prior to your appointment, contact Dr Sammons for guidance.

DOES COMMON PERONEAL NERVE PALSY COME BACK?

The prognosis for patients who undergo nerve decompression surgery is good. Barring additional trauma, symptoms do not come back. In patients whose damage is severe, permanent disability may occur.

Please call our rooms if you have any additional concerns or questions.



Hello!

I'm a Neurosurgeon at North Shore Private Hospital, Gosford Private Hospital, Brisbane Waters Private Hospital and the Sydney Adventist Hospital. I treat all neurosurgical conditions, but with a particular interest in Peripheral Nerve Surgery. I pride myself on providing personalised and thoughtful patient care and utilising my skills to achieve the best outcome possible.

I believe that a great neurosurgeon will ensure you feel listened to, will ensure that you understand what your surgery involves, and should also work together with your GP to achieve the best outcome for you.

Dr Vanessa

MBBS (Hons) MPhil FRACS (Neurosurgery)



CONSULTING ROOMS

ST LEONARDS

Sydney North
Neurosurgery
Suite 5, Level 5
66-80 Pacific Highway
St Leonards NSW 2065
T 02 9436 1818

ERINA

Central Coast
Neurosciences
Suite 202, Level 1
Element Building
200 Central Coast Hwy
Erina NSW 2260
T 02 9436 1818

WOY WOY

19 Kingsley Avenue
Woy Woy NSW 2256
T 02 9436 1818

BALLINA

Ballina Day Surgery
46 Tamar Street
Ballina NSW 2478
T 02 9436 1818

WWW.DRVANESSASAMMONS.COM.AU

[E doctor@drvanessasammons.com.au](mailto:doctor@drvanessasammons.com.au)