CQ HAND + UPPER LIMB
SPECIALIST ORTHOPAEDIC SURGEON

PATIENT INFORMATION

# Cervical radiculopathy

## What you're feeling

Cervical radiculopathy is the name for pain, numbness or tingling that starts in your neck and travels down into your arm. It happens when a nerve root in your neck gets squeezed or irritated, often by a bulging disc or by wear-and-tear arthritis in the small joints of the spine. The pain often feels sharp, shocking or electric, and it can shoot from your neck into your shoulder and arm. Many people also feel pins and needles or numbness in part of the arm or hand.

The pain usually follows a pattern. You might notice aching near your shoulder blade and in your arm, with tingling further down towards your fingers. Turning or bending your neck can make it worse, especially if you tilt your head towards the sore side. Resting your hand on top of your head can ease the pain, because this takes pressure off the nerve. Some people also get headaches at the back of the head that spread forward.

Symptoms often start with neck pain, and the arm symptoms follow later. The onset can be sudden or build up over weeks. Night-time can be uncomfortable, and tasks that need you to hold your arms up or turn your head, like reversing the car or reaching a high shelf, can become hard. Shoulder pain is common too, and it can be hard to tell whether the trouble is in your neck or your shoulder. Pain that worsens when you move your neck points to the neck, while pain worse with shoulder movement points to the shoulder.

Most people improve without surgery. Up to 75% of people with a recent flare-up get better on their own, and when symptoms have been present for about 6 weeks, 75% respond well to further non-surgical treatment over the next 6 weeks. A small percentage of people need surgery. If you notice clumsiness in your hands, or trouble with walking or balance, tell your surgeon, as these symptoms need a closer look at your neck.

## What's actually happening

Your spine is made up of bones stacked one on top of another, with a cushioning disc between each pair. Think of the disc as a shock absorber with a tough outer wall and a soft, jelly-like centre. With age, these discs lose water and height, and the outer wall can weaken and bulge or even tear, letting some of the soft centre push out. The small joints at the back of your neck also wear down, and bony spurs form around them.

As the disc settles and spurs grow, the spaces where nerves leave the spine get narrower. A nerve root can then be squeezed by the bulging disc, a spur, or both. An irritated nerve becomes inflamed and more sensitive, which

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is why the pain, tingling and numbness travel down your arm in the pattern described above. The most common levels for this are C6-C7 and C5-C6, in the middle of your neck. Bending your neck backwards narrows these spaces further, which is why looking up can make symptoms worse.

Most of the time this is a wear-and-tear problem that builds up slowly. Sometimes a disc tears suddenly and the soft centre pushes out quickly, causing intense pain that starts without warning. The nerve itself is usually not badly damaged, which is why most people improve without surgery. If the squeezing becomes severe, or if it starts to press on the spinal cord itself rather than just a nerve root, symptoms such as clumsy hands or unsteady walking can appear. Those signs mean the problem needs closer attention, and surgery may be considered to take the pressure off.

## What we can do about it

Dr Kieran Hirpara, an upper-limb surgeon at Mater Private Hospital Rockhampton, starts with the least invasive options that suit your condition. Patients are generally referred to our clinic by their GP; if a physiotherapist has suggested you see us, you will still need a referral from your GP in order to be eligible for the Medicare rebate. At your first visit we take a history, examine you, and arrange imaging if it is needed to confirm the cause. Because this is usually a wear-and-tear problem, we usually begin with non-operative care.

The first step is simple movement changes and exercises you can do at home. These include isometric exercises, where you tighten your neck muscles without moving your head. Some people are helped by traction, a gentle pull on the neck that eases pressure on the nerve, or by wearing a soft collar for a short time. As you read earlier, most flare-ups settle on their own, so we often give things time to improve before doing more.

Pain medicine can help you stay active while the nerve settles. Anti-inflammatory tablets, called NSAIDs, are a common choice. If tablets are not enough, a cervical epidural injection can be offered. This places anti-inflammatory medicine close to the irritated nerve root in your neck to settle the pain.

Surgery is considered when there is progressive weakness in the arm, or when pain stays severe and disabling despite the steps above. It may also be advised when scans show the nerve or spinal cord is being squeezed and your symptoms match. The aim of surgery is to take the pressure off the nerve. This can be done from the front of the neck, where the bulging disc and any bony spurs are removed and the bones are then joined together with a graft. In some cases a damaged disc can be replaced with an artificial one instead of fusing the bones. Some problems are better reached from the back of the neck through a small window in the bone, which frees the nerve without fusing the spine. Which option suits you depends on where and how the nerve is squeezed, and we will talk that through with you as a shared decision.

## What to expect

The outlook for this condition is often good. Most people improve without surgery, and a recent flare-up often settles on its own. When symptoms have been present for about 6 weeks, most people respond well to further non-surgical care over the next 6 weeks, as you read earlier. Nonsurgical treatment is the usual starting point, and it works for the majority of people.

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Recovery is usually gradual rather than sudden. The pain tends to ease first, and the tingling and numbness can take longer to fade. Some numbness or mild weakness may linger even after the pain has gone, because an irritated nerve settles slowly. Over weeks to months you should notice the arm pain becoming less sharp and less frequent, and everyday tasks like reaching and driving becoming easier.

If non-surgical care does not settle things, surgery is an option for a small percentage of people. The aim is to take pressure off the nerve, and the results of different surgical approaches are broadly similar for this condition. Whether the neck is fused or the disc is replaced, measures of disability, pain and quality of life have not differed at 5 years. Surgery from the back of the neck works as well as surgery from the front at 2 years, although neck pain can be more noticeable early on after back-of-neck surgery before it improves.

A few honest cautions. The size of a disc bulge on your scan does not predict how bad your symptoms are, nor how well you will do after surgery. Some people continue to have some neck or arm discomfort even after treatment has worked well overall. And if symptoms are left alone, most still improve, but a small number go on to need surgery anyway. If you notice worsening hand clumsiness or trouble with balance at any point, contact your surgeon rather than waiting for the next appointment.

## When to see someone

See your GP if you have arm pain, numbness or tingling that has not started to settle after a few weeks, or if it keeps coming back. Ask for a specialist review if the pain is severe, if it stops you sleeping or working, or if your arm is getting weaker. Weakness that is getting worse matters most, because it can mean the nerve is under real pressure. Go to an emergency department if you suddenly become clumsy with your hands, or if you develop trouble with walking or balance. Those signs suggest the spinal cord itself may be squeezed, and they need checking the same day rather than waiting.

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