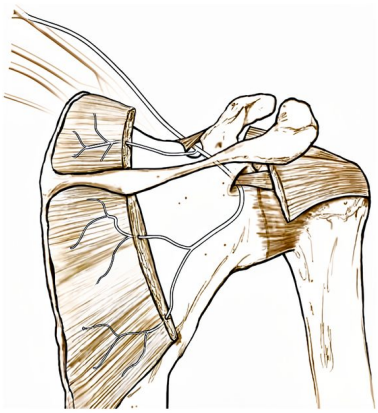
CQ HAND + UPPER LIMB
SPECIALIST ORTHOPAEDIC SURGEON

PATIENT INFORMATION — IN DEPTH

Suprascapular neuropathy



The suprascapular nerve, which can be compressed at the notch of the shoulder blade.

What you're feeling

Suprascapular neuropathy affects the nerve that runs along the back of your shoulder blade. In young, active people, this condition usually shows up as one of two main problems: pain or weakness. You might feel a deep ache in the back of your shoulder or along the shoulder blade. This pain often gets worse after you use your arm or at night when you are trying to sleep. Some days, you might wake up with a stiff, sore shoulder that takes time to loosen up.

The weakness can be subtle at first. You may notice that lifting your arm feels heavier than usual. Simple tasks like reaching for a cup on a high shelf or putting on a jacket can become difficult. Your shoulder might feel unstable or like it is giving way when you try to lift things. This happens because the nerve signals that tell your shoulder muscles to work are being interrupted.

In some cases, the pain and weakness come together. You might feel tired in your arm after just a few minutes of activity. The discomfort can radiate down your upper arm or into your neck. It is important to know that this nerve issue can happen even if your shoulder tendons are still intact. Sometimes, the muscle tissue itself changes, becoming fatty and weaker without a clear tear or injury.

If you notice these symptoms, your surgeon will look for signs of nerve compression. This often happens at specific narrow passages near your shoulder blade. Understanding what you are feeling helps us decide the best next steps. We will discuss whether rest and therapy are enough, or if further investigation is needed to relieve the pressure on your nerve.

What's actually happening

A thin nerve runs from your neck down to your shoulder blade. This is the suprascapular nerve. It acts like a power cable for two small muscles that help you lift and rotate your arm. When this nerve gets pinched or irritated, it stops sending clear signals. This condition is called suprascapular neuropathy.

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The nerve passes through narrow tunnels in your shoulder blade bone. Sometimes, the shape of these tunnels is naturally tighter. Other times, extra tissue or calcium deposits narrow the space further. Think of it like a garden hose kinked under a heavy rock. The flow of water stops. In your body, the flow of nerve signals is blocked. This can happen at two specific points along the nerve's path.

When the signal is blocked, your muscles do not receive the command to work. You may feel sudden weakness or sharp pain. In some cases, the muscle tissue itself begins to change. It can turn into fatty tissue over time. This happens even if your main shoulder tendons are still intact. The nerve injury weakens the foundation of your shoulder joint.

There are other reasons this nerve might get trapped. A large bruise inside the shoulder blade can press on it. A benign fatty lump, known as a lipoma, can also take up space. In some patients, the link between this nerve issue and torn shoulder tendons is not fully clear. However, the nerve damage can make healing from a tear much harder.

Your surgeon will look for these physical causes. They may use special tests to check how well the nerve is working. This helps us understand if the problem is a simple pinch or something more complex. Knowing exactly what is happening allows us to choose the right treatment for you.

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. A clinic assessment (history, examination, and imaging where needed) establishes the diagnosis. For degenerative or long-standing problems we usually try non-operative care — activity change, physiotherapy or hand therapy, splinting, and injections — and consider surgery when that has not given enough improvement. For structural or acute problems, surgery may be recommended straight away, without a preceding non-operative trial.

If there is no clear block pressing on the nerve, we start with non-surgical care. You will likely begin with physical therapy to strengthen the shoulder and improve movement. We also advise activity modification to avoid movements that irritate the nerve. Nonsteroidal anti-inflammatory drugs can help reduce swelling and pain. Most patients try this approach for several weeks. If symptoms improve, you may not need further treatment. In some cases, a cyst causing the pressure can resolve on its own, so we monitor your progress closely.

When pain persists or weakness develops, we discuss medical options. Cortisone injections can reduce inflammation around the nerve to provide temporary relief. Hyaluronic acid injections may help lubricate the joint if arthritis is present. Platelet-rich plasma (PRP) injections use your own blood components to support healing. These treatments aim to manage symptoms and improve function while you continue with therapy. The effect of these injections varies, but they can provide significant comfort during your recovery period.

Surgery is considered when conservative care does not bring enough relief, or if you have progressive weakness. We may recommend arthroscopic release, a keyhole procedure to free the nerve from tight ligaments. This is

often done at the suprascapular or spinoglenoid notch, where the nerve can get trapped. The goal is to relieve pressure on the nerve so pain fades and strength returns. Outcomes are generally good, with many patients seeing marked improvement in pain and function after the procedure. We discuss all options with you to ensure the plan fits your needs.

What to expect

Your symptoms usually fall into two clear patterns: persistent pain or noticeable weakness. In many cases, the condition does not resolve on its own if there is no specific blockage pressing on the nerve. If your surgeon identifies a well-defined lesion causing mechanical compression, or if your pain and weakness are getting worse, surgery may be recommended.

If you do not have a clear blockage, your surgeon will likely start with non-surgical care. This typically involves physical therapy, anti-inflammatory medications, and changing your daily activities to protect the shoulder. Many patients find relief through these conservative measures.

If surgery is needed, it often involves releasing tight ligaments that trap the nerve. When this is done for isolated nerve issues without major joint damage, most people see significant improvements in function. You can expect a gradual return to normal shoulder use. In cases where the nerve was compressed by a blood clot or haematoma, full recovery of shoulder function is possible.

If you also have a large or massive rotator cuff tear, the outlook is different. Adding nerve release to your rotator cuff repair does not typically lead to better outcomes than repairing the cuff alone. Your surgeon will focus on the most effective path for your specific anatomy.

It is important to understand that nerve damage can sometimes lead to changes in the shoulder muscles, such as fatty infiltration or thinning. This can happen even if the tendons themselves are intact. While surgery can relieve pain and improve function, it does not always reverse long-term muscle changes.

Overall, the goal is to reduce pain and restore strength. With appropriate treatment, many patients achieve good functional outcomes. Your surgeon will monitor your progress closely to ensure you are on the right path to recovery.

When to see someone

See your GP if you have shoulder pain or weakness that does not improve with rest. Ask for a specialist review if you notice progressive symptoms. This includes sudden worsening, instability, or locking. Symptoms that interfere with sleep or work also warrant attention. Your surgeon will check for nerve compression at the shoulder notch. Initial treatment is often non-surgical, such as physical therapy or anti-inflammatory medication. However, if there is clear mechanical compression or worsening weakness, surgery may be needed. A complete history and physical exam helps avoid missed diagnoses. This careful approach prevents the need for revision operations later.

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In more depth

This section goes further than you need for your own treatment decisions. Suprascapular neuropathy is worth the extra reading because the same nerve appears in two quite different roles — as a cause of shoulder pain and weakness, and as a target for pain relief — and the evidence for the two is very different in quality.

DECOMPRESSION WORKS, WITH A CAVEAT ABOUT ATTRIBUTION

Where the nerve is compressed, releasing it is effective. Across **730** patients, suprascapular nerve decompression **significantly improves patient-reported outcomes**, is **non-inferior to similar procedures performed without decompression**, and is associated with **high rates of return to sport and relatively low rates of adverse events** [1].

The phrase doing the work there is "non-inferior to similar procedures without decompression". The nerve is frequently released during an operation done for another reason — a cuff repair, or removal of a ganglion at the shoulder blade — so attributing the improvement to the decompression itself is difficult. It helps, and it does not make the accompanying procedure worse.

WHY THE LEVEL OF COMPRESSION CHANGES THE PICTURE

The nerve passes through two narrow points as it wraps around the shoulder blade, and which one is involved determines the presentation.

Compression at the **suprascapular notch**, higher up, affects both supraspinatus and infraspinatus, producing weakness in lifting and external rotation along with pain. Compression at the **spinoglenoid notch**, further along, affects only infraspinatus, producing external rotation weakness and visible wasting in the hollow below the spine of the shoulder blade, often with little pain.

The isolated-wasting presentation is the one that gets missed, because it does not hurt much. The commonest cause at that level is a ganglion cyst arising from a labral tear — which means finding this pattern should prompt a search for the cyst and the tear behind it, since treating the cause addresses the nerve.

AS A PAIN BLOCK, THE EVIDENCE IS THINNER THAN ITS USE SUGGESTS

The same nerve is widely blocked with local anaesthetic for shoulder pain, both after surgery and in chronic conditions. Reviewing physical harms across **4,142** patients, the block **carries a low risk of physical harm** — but the authors note **heterogeneity in the intervention and low-quality evidence**, and call for better assessment and reporting of harms [2].

"Low risk of harm on low-quality evidence" is a specific and limited claim. It supports the block being reasonably safe; it is not a statement about how well it works, and it should not be read as one.

THE DISTINCTION WORTH CARRYING AWAY

Two things share this nerve's name and should not be conflated. A neuropathy is a structural problem where the nerve is compressed and can often be decompressed, with wasting and weakness as its signature. A nerve block is a symptomatic treatment that interrupts pain signalling from the joint and changes nothing structural.

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Weakness and visible wasting point to the first. Pain alone, without those findings, usually points elsewhere — and a block that relieves it is providing analgesia rather than confirming a diagnosis.

REFERENCES

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2. Annison DR, Smith N, Salt E, Noblet T, Rangan A, McDaid C. Physical harms associated with suprascapular nerve block interventions: a systematic review. Shoulder Elbow. 2024;17(3):236-53.

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