CQ HAND + UPPER LIMB
SPECIALIST ORTHOPAEDIC SURGEON

PATIENT INFORMATION — IN DEPTH

Glomus Tumour

Esta página se tradujo automáticamente y todavía no la ha revisado un médico. La **versión en inglés** es la versión oficial.

What you're feeling

The pain from a glomus tumour is usually felt in one small spot, most often under the nail of a finger or in the soft part of the fingertip. It can be severe and sharp, and pressing on that exact point hurts intensely. Cold sets it off: reaching into the fridge or freezer, washing your hands in cool water, or stepping outside on a chilly morning can bring on a sudden wave of pain. Some people notice a small bluish or pink spot under the nail, or a ridge where the nail has changed shape.

The pain tends to flare without much warning. It can wake you at night when the bedclothes press on the finger, or when you knock the fingertip on a door handle or bench. Turning a key, buttoning a shirt, typing, or gripping a pen can all become uncomfortable because they press the tender spot. Over time many people start protecting the hand without realising it, avoiding tasks that put pressure on that finger.

This condition is often mistaken for something else, and the diagnosis can be delayed for years because the tumour is tiny and often cannot be seen. Some people are told they have a nerve or joint problem first, and a few are even treated for a psychiatric condition before the true cause is found. If your symptoms are not settling, are getting worse over weeks, wake you at night, or stop you working or using your hand, see your GP or ask for a specialist review.

A glomus tumour is benign, which means it is not a cancer. It will not spread. But the pain it causes is real and can be debilitating, so it is worth naming early.

What's actually happening

Deep in your skin, especially in the fingertips and nail beds, sit tiny structures called glomus bodies. Each one is a small coil of blood vessel wrapped in special muscle cells. Its job is to control blood flow to the skin, which helps your body manage its temperature. When you get cold, these little structures open up or close down to adjust how much warm blood reaches the skin.

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A glomus tumour is a benign overgrowth of these cells. It is not a cancer and it will not spread. The tumour is usually small, often less than a centimetre across, and it most often forms under the nail or in the soft pad of the fingertip. Some people have more than one.

The pain comes from where the tumour sits. Glomus bodies are packed close to nerve endings, and the tumour keeps that crowded, nerve-rich setting. So a lump only a few millimetres across can cause pain far bigger than its size. The nerves in and around the tumour react to pressure and to cold, which is why pressing the spot hurts so much and why cold water or chilly air can trigger a sudden flare. The tumour can also press on nearby nerves, adding to the ache.

Most glomus tumours appear in the fingers, under the nail being the common spot, but they can turn up elsewhere in the hand or forearm. They are more common in women and usually appear in middle age. They are also much more common in people with neurofibromatosis type 1, a condition that causes growths along nerves.

Because the tumour is so small and often cannot be seen, it is easy to miss. The diagnosis is often delayed, sometimes for years. That delay is not a sign that anything worse is going on. It reflects how tiny and well hidden these tumours are, and how much pain such a small thing can cause.

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, which includes your history, an examination, and imaging where needed, establishes the diagnosis.

For a glomus tumour, there is no tablet, cream or injection that makes it go away. Simple measures can take the edge off while you wait for assessment. Protecting the finger from knocks, keeping it warm in cold water and chilly weather, and wearing a splint to shield the tender spot may help you manage day to day. These steps ease the symptoms, but they do not remove the cause.

Because the pain comes from one pinpoint spot, the treatment that works is surgical removal of the whole tumour. We usually recommend surgery once the diagnosis is clear, because waiting rarely makes the problem settle on its own. Removing the tumour relieves the pain, and after complete removal the typical pain usually goes straight away. The operation itself has its own page, so we will not go into technique here.

If your finger becomes hot, red, swollen and painful, especially with a fever, go to the emergency department the same day. No GP referral is needed for that.

What to expect

Left alone, a glomus tumour does not usually settle. The pain tends to persist, and for many people it goes on for years before the cause is found. Some live with it for a long time while protecting the finger and avoiding

cold. The longer it goes unnamed, the more it can wear you down, affecting your sleep, your work and how much you use your hand.

Once the tumour is removed completely, the outlook is different. The typical pain usually goes straight away. Recurrence after removal is uncommon. If pain does return months or years later, it is often a second small tumour in a new spot rather than the first one growing back, and occasionally there is more than one tumour from the start. Your surgeon will keep this in mind if symptoms come back.

Recovery is usually straightforward in its broad shape: the severe pinpoint pain that brought you in is relieved once the tumour is out, and over the following weeks your finger settles as the tenderness fades and you trust the finger again. Hand therapy after surgery is with Ruby Doolan at Extend Rehabilitation. Ruby is a hand therapist who will guide your recovery and make any splint you need.

If your finger becomes hot, red, swollen and painful, especially with a fever, go to the emergency department the same day. No GP referral is needed for that.

When to see someone

See your GP or ask for a specialist review if you have severe pain in one small spot on a finger that will not settle, hurts intensely when pressed, or flares in the cold. The same applies if a bluish or pink spot under the nail comes with that pain, or if the pain has gone on for months or years without a clear cause. These symptoms are often mistaken for something else, and some people are even treated for a psychiatric condition first, so it is worth naming the possibility early. The longer the cause goes unnamed, the more the pain can wear you down and limit your hand. If the pain sits elsewhere, such as the forearm or palm, mention that too, because these tumours can turn up outside the fingers. If your finger becomes hot, red, swollen and painful, especially with a fever, go to the emergency department the same day. No GP referral is needed for that.

In more depth

This section goes further than you need for your own treatment decisions. A glomus tumour is worth the extra reading because it is one of the few conditions in hand surgery where the usual problem is not treatment but recognition: the tumour is tiny, often invisible, and cured by its removal, yet people commonly live with it for years before anyone names it.

YEARS OF PAIN FROM SOMETHING A FEW MILLIMETRES ACROSS

A glomus body is a small coil of blood vessel wrapped in specialised muscle cells that helps control blood flow to the skin, and the fingertips and nail beds are packed with them. A glomus tumour is a benign overgrowth of these cells, usually under the nail or in the pulp of the fingertip. Because the cells sit around blood vessels and nerve endings, a lump only a few millimetres across can produce pain out of all proportion to its size.

The delay in diagnosis is the defining feature of the condition. In a UK series of **73** tumours, more than **90%** of patients had the classic symptoms, yet **31%** had first been given another diagnosis, and the average time from first symptoms to diagnosis was **6 years** [1]. In a Singapore series of **31** cases the average was **44 months**;

nearly everyone had pain (**96.8%**), but a visible lump was present in fewer than half (**48.4%**) [2]. In a review of **138** cases at a large American centre, the clinical diagnosis and the laboratory diagnosis agreed in only **45.4%**; the commonest alternatives were a lipoma, a cyst or a blood vessel lump [3].

THREE BEDSIDE TESTS, AND WHY THEY ARE COMBINED

The classic triad is severe pain at one spot, exquisite tenderness there, and pain set off by cold. Three simple tests build on it.

- **The pin test (Love's test):** pressing with the head of a pin finds the single point of tenderness and maps it.
- **The cold test:** chilling the finger reproduces the pain.
- **Hildreth's test:** a cuff on the upper arm briefly stops blood flow; the tenderness fades while the cuff is up and returns when it comes down.

In a study of **24** patients Hildreth's test was **92%** sensitive and **91%** specific [4]. In a series of **18** people with fingertip pain, the cold test identified every tumour correctly, while the pin and Hildreth's tests were each **78%** accurate [5]. The numbers come from small series and do not agree exactly, which is why the tests are used together rather than relied on one at a time.

WHAT AN MRI CAN AND CANNOT DO

An MRI scan is very good at confirming a tumour that is there. In a study of **42** hands it was **90%** sensitive with a positive predictive value of **97%**, but its negative predictive value was only **20%**: all four tumours it missed were confirmed at surgery, and each measured just **2 to 3 mm** [6]. In a second series of **36** MRI scans, about **one in three** did not make the diagnosis, more often when the tumour was small, unusual under the microscope, in an unusual place, or not suspected by the person requesting the scan [7]. An X-ray adds a little: a long-standing tumour under the nail can leave a small dent in the bone, and tumours without one were more likely to be missed on MRI [7]. A normal scan therefore does not rule out a glomus tumour when the history and examination fit; the clinical findings come first.

MORE THAN ONE TUMOUR, AND NEUROFIBROMATOSIS

Glomus tumours are not always single. In an early series of **28** patients, **7** (**25%**) had more than one, and **15%** had their symptoms come back after surgery, which the authors put down to a second tumour missed at the first operation [8]. In a later series, all **5** recurrences among **12** patients appeared in new, separate places rather than where the first tumour had been removed [9]. Pain that returns months or years after a successful operation is therefore often a second tumour rather than regrowth.

People with neurofibromatosis type 1, a genetic condition that causes growths along nerves, are at much higher risk. In one study **6** of **21** people with a hand glomus tumour (**29%**) had neurofibromatosis, against **none** of **200** people with a wrist ganglion; the odds ratio was **168** [10]. A painful fingertip in someone with neurofibromatosis deserves a careful look for a glomus tumour.

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WHAT REMOVAL ACHIEVES

Complete removal cures the typical pain, usually at once. In a series of **53** people every one had relief by the day after surgery [11]. In a smaller French study that followed people for more than **10 years**, the pain had gone in **91%** [12]. Recurrence after removal is uncommon, at about **3 to 7%** in the larger modern series [1] [13], and is covered in more detail on the operation page.

WHAT THIS MEANS FOR YOU

- A small, very tender spot at the fingertip that hurts in the cold is worth naming early. The diagnosis is commonly missed for years.
- The examination tests matter as much as the scan. A normal MRI does not rule out a small tumour when the story fits.
- Removal is the only treatment that cures it, and the relief is usually immediate.
- If the pain comes back later, it is often a second small tumour, and a repeat MRI is worth having.

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