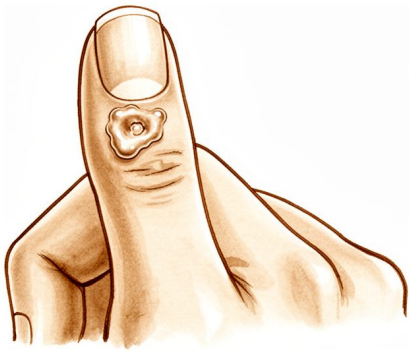
CQ HAND + UPPER LIMB
SPECIALIST ORTHOPAEDIC SURGEON

PATIENT INFORMATION — IN DEPTH

Mucous Cyst

A mucous cyst on the thumb: a small fluid-filled bump that arises from the worn-out joint at the tip of the finger or thumb.



What you're feeling

You may notice a small, firm lump on the top of your finger, usually near the last joint or close to your fingernail. This is a mucous cyst. It often feels like a tiny pea under the skin. The skin over it might look thin or shiny. Because it sits so close to the nail, it can press against the nail bed. This pressure often causes a visible groove or ridge in your nail plate. The nail may look uneven or split down the middle.

Pain is not always severe, but it can be persistent. You might feel a dull ache or tenderness when you press on the lump. The discomfort often worsens with activity. Tasks that require gripping or pinching can become difficult. For example, opening a stiff jar lid or twisting a bottle cap may hurt. Typing on a keyboard can also irritate the area if your fingers rest heavily on the keys. You might find yourself avoiding certain movements to protect the finger.

Sometimes the cyst can feel more prominent or tender after you have been using your hands all day. Resting the hand may bring some relief, but the lump itself rarely goes away on its own. If the cyst grows larger, it can interfere with how your finger bends. You might notice a slight stiffness in the last joint of your finger. This stiffness can make fine motor tasks, like buttoning a shirt or picking up small coins, more challenging.

In some cases, the cyst may become inflamed. The area might feel warm or look slightly red. If the skin over the cyst thins out significantly, there is a small risk of it draining clear fluid. This is not pus, but a jelly-like substance from the joint. While this can relieve pressure temporarily, it also creates a pathway for bacteria to enter the joint. This is why we advise against trying to pop or drain it yourself.

The symptoms can fluctuate. You might have days where the finger feels normal, followed by periods of increased discomfort. Because the cyst is linked to wear-and-tear arthritis in the joint, the symptoms may come and go over weeks or months. Ignoring it does not make it disappear. The underlying arthritis continues to produce fluid, which keeps filling the cyst. Understanding these signs helps you decide when to seek treatment before the nail damage becomes permanent.

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What's actually happening

A mucous cyst is a small, fluid-filled sac that forms near your fingernail. It sits on the top of the joint closest to your nail bed. Think of this joint as a hinge covered by a protective capsule. This capsule keeps the joint lubricated and stable.

The cyst develops because of wear-and-tear arthritis in that joint. As the cartilage wears down, your body tries to repair the area by growing extra bone. These bony bumps are called osteophytes. They push against the joint capsule, creating pressure. This pressure forces joint fluid out through a weak spot in the capsule, forming the cyst.

You might notice the cyst looks like a small blister or a lump under the skin. It is often filled with thick, clear jelly-like fluid. Because it sits so close to the nail, it can press on the nail root. This pressure may cause grooves or ridges to form in your nail as it grows. In some cases, the cyst can weaken the skin, making it more likely to break open.

The underlying issue is the combination of the bony spur and the stretched joint capsule. The spur acts like a wedge, keeping the capsule under tension. This tension prevents the weak spot from healing naturally. The fluid continues to leak out, keeping the cyst present.

Removing just the cyst without addressing the bone spur often leads to recurrence. The pressure remains, and the fluid finds another way out. Similarly, removing only the bone spur may not be enough if the capsule remains damaged. The most effective approach addresses both the fluid sac and the source of the pressure. This involves removing the cyst and smoothing or removing the bony bump. In some cases, we also repair the joint capsule to seal the leak. This combined approach stops the fluid from re-accumulating and helps protect your nail health.

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.

We begin with self-management and physiotherapy. You can try activity changes to reduce stress on the joint. Physiotherapy aims to keep the joint moving and strengthen the surrounding muscles. We usually recommend giving this approach a fair trial before considering other steps.

Medical management focuses on comfort. We may suggest pain medication or anti-inflammatories to help with swelling and discomfort. In some cases, we consider injections. Cortisone injections can reduce inflammation for a period of time. Hyaluronic acid injections may help lubricate the joint. Platelet-rich plasma (PRP) injections use your own blood components to support healing. The length of relief varies, but these options can buy you time and reduce symptoms while you manage the condition.

We consider surgery when conservative care has not given enough improvement. Surgical treatment for mucous cysts is reliable. Excision of the cyst and removal of the bone spur (osteophyte) eradicates the cyst with extremely rare recurrence. A total dorsal capsulectomy alone is a simple treatment that does not lead to any

recurrence. Surgical excision with a local advancement skin flap shows a low recurrence rate of 1.4% and high patient satisfaction regarding the scar. Osteophyte excision without cyst excision provides complete resolution in most cases. The Zitelli Bilobed Flap allows excision with no added risk to the nail matrix. A technique involving cyst excision, synovectomy, and débridement of osteophytes with rotational flap closure resulted in no recurrences in thirty-six patients. The use of a Wolfe Graft is simple and provides satisfactory cosmesis with acceptable recurrence rates. Osteophyte removal results in a low cyst recurrence rate, indicating it should be undertaken regardless of the plan for soft tissues. A successful result was obtained by surgical treatment for an intraneural mucoid cyst in the digital nerve.

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 establishes the diagnosis. For degenerative or long-standing problems we usually try non-operative care and consider surgery when that has not given enough improvement. We present these options as a shared decision, ensuring you understand the benefits and risks of each path.

What to expect

A mucous cyst is a small, fluid-filled lump that usually forms near the tip of your finger or thumb. It sits on top of the joint and is linked to wear-and-tear arthritis. Without treatment, these cysts tend to persist. They may stay the same size, grow slowly, or occasionally shrink on their own. However, they rarely disappear completely without intervention. If left alone, the cyst can sometimes cause pain, stiffness, or thinning of the skin over the lump. In rare cases, the cyst may drain fluid onto the skin surface.

When managed with surgery, the outlook is generally positive. The goal is to remove the cyst and the underlying bony spur that causes it. This approach leads to extremely rare recurrence. Some techniques involve removing just the bony spur, which can resolve the issue in most cases with a less invasive method. Other methods use local skin flaps or grafts to cover the area, which patients report high satisfaction with regarding the scar appearance. Most people find they are willing to have the procedure again if needed.

Recurrence is uncommon but possible. When it does happen, it usually occurs early after the initial surgery. This is why regular follow-up appointments are important. Your surgeon will check the area to ensure the cyst has not returned and to monitor the healing skin. Malignant transformation is not a typical concern, but ongoing monitoring helps rule out any unusual changes.

Recovery involves a period of healing where you will notice the swelling going down and the scar maturing. While specific timelines vary, most patients see significant improvement in comfort and appearance over weeks to months. The skin may feel tight or numb initially, but sensation typically returns. By addressing the root cause—the arthritis and the cyst—you reduce the chance of it coming back. Your surgeon will guide you through the process to ensure the best possible outcome for your hand function and appearance.

When to see someone

Mucous cysts can show unclear signs, so a delay in diagnosis is common. See your GP if you notice a new lump near your fingernail or joint. Your surgeon will check for wear-and-tear arthritis, which often causes these cysts. Regular follow-up is important to ensure the cyst does not return or change. Most returns happen early after treatment. If you have had surgery, watch for any new swelling or pain. Early attention helps prevent complications and keeps your finger healthy.

In more depth

This section goes further than you need for your own treatment decisions. Mucous cysts are worth the extra reading because of a small, well-supported surgical insight: the cyst is not the problem, and the operation that works best does not necessarily remove it.

THE BONE SPUR IS THE CAUSE, NOT THE CYST

A mucous cyst arises from an arthritic fingertip joint. A bony spur — an osteophyte — irritates and perforates the joint capsule, and joint fluid tracks out through the defect and collects under the skin. The cyst is the visible end of that process, not its origin.

That understanding has a direct surgical consequence, demonstrated in a series where **osteophyte excision without cyst excision** produced **complete resolution in most cases**, and was described as a good treatment choice offering a less invasive method [1].

Removing the spur closes the tap. The cyst, no longer being filled, resolves. This is the same logic that governs the wrist ganglion, where the stalk rather than the sac determines recurrence — and it explains why simply draining or puncturing a mucous cyst so reliably fails.

WHERE THE CYST IS EXCISED, RESULTS ARE ALSO GOOD

The alternative approach removes the cyst along with a local skin flap to close the defect. That is also reliable: across **69** patients, surgical excision with a local advancement flap showed a **recurrence rate of 1.4%** with high patient satisfaction regarding the scar and willingness to undergo the procedure again [2].

Both approaches work, and both address the underlying joint. The practical difference is how much skin is involved: a long-standing cyst thins the overlying skin, sometimes to the point of discharging, and in that situation the thinned skin needs excising and replacing regardless of what is done to the bone.

WHY THE NAIL BECOMES DEFORMED, AND WHETHER IT RECOVERS

A groove or ridge running the length of the nail is a common accompaniment, and it worries people more than the lump. The cause is mechanical: the cyst sits immediately over the germinal matrix — the part of the nail bed that generates the nail — and presses on it, so the nail is produced with a defect.

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The useful part is that this is pressure rather than destruction. Once the cyst is decompressed, the nail typically grows out normally, though it takes several months for the deformed portion to grow off the end. A nail deformity is therefore a reason to treat the cyst rather than a permanent consequence of it.

THE REASON TO BE CAREFUL ABOUT PUNCTURING ONE

A mucous cyst communicates directly with the joint. Puncturing it — deliberately, or by the skin breaking down over a large one — creates a channel from the outside world into a finger joint, and septic arthritis of a small joint is a considerably more serious problem than the cyst.

This is the practical argument against home drainage of a cyst that appears to be simply a blister of fluid, and the reason a spontaneously discharging cyst is treated with some urgency rather than watched.

REFERENCES

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2. Johnson SM, Treon K, Thomas S, Cox QGN. A reliable surgical treatment for digital mucous cysts. J Hand Surg Eur Vol. 2013;39(8):856-60.

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