

# Mallet Finger

Mallet finger: the tip of the finger droops because the extensor tendon that straightens the last joint has been torn or pulled off its attachment.

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## What you're feeling

You will likely notice your fingertip droops and cannot straighten itself. This happens because the tendon that pulls your finger up is torn or detached from the bone. The pain is usually sharp at first, settling into a dull ache around the tip of your finger. You may feel tenderness where the tendon attaches to the bone.

Simple movements become difficult. You might struggle to type on a keyboard or press buttons on a phone. Gripping objects, like holding a cup of tea or turning a doorknob, can feel unstable or painful. Bending the finger at the middle joint while trying to straighten the tip may cause discomfort. You might find it hard to put on gloves or rings.

The pain often flares after activity. Using your hand for repetitive tasks, such as washing dishes or gardening, can make the ache worse. You may notice stiffness when you first wake up in the morning. This stiffness usually eases as you move your hand gently. However, forcing the finger straight can increase the pain and swelling.

If the injury involves a fracture, you might see swelling or bruising at the tip of the finger. In some cases, the joint may look slightly misaligned. This is called subluxation. It happens when the bone shifts out of place. Not everyone with a fracture experiences this. About half of patients with larger fractures do not develop this joint shift.

Your symptoms may persist if you do not seek care quickly. Delayed treatment can lead to long-term stiffness or weakness. However, even if you present a few weeks after the injury, conservative treatment with a splint can still be effective. Most people manage their symptoms well without surgery. We aim to help you regain full function through simple, non-surgical methods whenever possible.

## What's actually happening

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Your fingertip rests in a bent position because the tiny cord that straightens it has snapped. This cord, called the terminal tendon, acts like a rope pulling your nail upward. When it tears or pulls away from the bone, that upward pull stops. Without this tension, the joint cannot lift against gravity.

The injury usually happens when something catches your straight finger and forces it down suddenly. This might be a ball or a door handle. The force is so strong that the tendon gives way. In some cases, the tendon pulls off a small chip of bone from the end of your finger. Whether the break is in the soft tissue or the bone, the result looks the same: your joint droops and stays bent.

You can still move your finger with help, but you cannot lift it yourself. This is because the muscle that bends your finger works without opposition. It pulls the joint down while the straightening mechanism is broken. If the break involves a large piece of bone, the joint may shift out of place. This misalignment can lead to long-term stiffness if not managed correctly.

Most of these injuries heal well with simple splinting. We keep the joint straight for twelve weeks to let the tendon or bone heal back into place. This allows the rope to reattach firmly. If the bone fragment is very large or the joint is misaligned, we may discuss surgery. However, many cases resolve without an operation. The goal is to restore your ability to straighten the finger fully and comfortably.

## What we can do about it

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Dr Kieran Hirpara, an upper-limb surgeon at Mater Private Hospital Rockhampton, starts with the least invasive options that suit your condition. We begin by assessing your injury to determine if simple splinting is enough. Most cases of mallet finger respond well to conservative care. You will wear a splint that holds the tip of your finger straight. This keeps the tendon in place so it can heal. You can try this at home or with guidance from a hand therapist. A hand therapist can treat this injury as effectively as a surgeon. They use methods that protect your skin and optimise your recovery. You may also wear a splint at night, though this does not always improve the final result. We aim for you to regain full movement without surgery.

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 acute injuries, we usually try non-operative care first. This includes activity change, splinting, and therapy. We may recommend pain medication or anti-inflammatories to manage discomfort. These help you stay comfortable while the tendon heals. In some cases, we might consider injections, but these are not always necessary for mallet finger. The goal is to reduce pain and swelling so you can function normally. We monitor your progress closely. If you are unable to work with the splint in place, or if the injury is neglected for several weeks, we may adjust the plan. Most authorities recommend splinting only the distal joint. This keeps the rest of your finger mobile.

Surgery is considered when conservative care has not worked or when the injury is complex. We may recommend an operation if you have a fracture involving more than one-third of the joint surface. Surgery is also indicated if the bone has slipped out of place (volar subluxation). In these cases, the tendon may have

pulled a piece of bone away. The operation repairs the tendon and stabilises the joint. We use a small incision to access the area. The tendon is reattached to the bone. A thin wire may hold the joint straight while it heals. This wire is removed after four to six weeks. You will wear a splint for about eight weeks after surgery. Normal activities are resumed gradually. We discuss all options with you to ensure the plan matches your specific injury and lifestyle needs.

## What to expect

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Most mallet finger injuries settle well with simple splinting. This non-surgical approach is the standard for the majority of cases. You will wear a splint to keep the tip of your finger straight. This allows the tendon to heal. If managed correctly, few patients have significant persistent disability after two weeks of treatment.

Surgery is not always needed. It is typically reserved for specific situations, such as when a large piece of bone is involved or if the joint surface is significantly damaged. Even in these more complex cases, surgical outcomes are generally good. Some studies report no complications like infection or nail deformity with modern techniques. However, operative treatment does carry a higher risk of issues, with one study noting a 41% complication rate. This is often due to the delicate nature of the tendon and blood supply in this area.

If you choose conservative management, the outlook remains positive. Large bone fragments and neglected injuries often heal with low long-term complication rates. You should avoid supplemental night splinting, as evidence shows it does not improve your final result in terms of movement or satisfaction.

For chronic injuries that do not heal, reconstruction is an option. The Fowler procedure is considered a safe and effective way to correct the deformity with less impact on your other joints.

Overall, whether you have surgery or just splinting, excellent clinical outcomes are common. The key is early recognition and proper care. Delayed treatment can still yield adequate results, but early referral to a hand specialist helps avoid long-term stiffness or weakness. Your finger may feel stiff at first, but function usually returns well with patience and consistent splint wear.

## When to see someone

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See your GP if you have persistent pain, weakness, or instability that does not improve with rest. Ask for a specialist review if your finger locks, gives way, or interferes with sleep or work. Early recognition of mallet finger injuries and referrals to a hand surgeon are crucial to avoid long-term disability. This is especially important if you play sports like football, where these injuries are frequent. Sudden worsening of symptoms warrants prompt attention. While many cases respond well to splinting, those that do not react to this therapy may need surgical intervention. Timely care helps prevent joint subluxation and ensures the best possible recovery for your finger.

## In more depth

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This section goes further than you need for your own treatment decisions. Mallet finger is worth the extra reading because the two situations that are usually treated as clear indications for surgery – a large fracture fragment, and a persistent droop after splinting – are less clearly established than the confidence with which they are stated.

### BOTH TREATMENTS PRODUCE GOOD RESULTS, AND NOBODY KNOWS WHERE THE LINE IS

A systematic review of surgical and non-surgical management reached a conclusion that is unusually direct: **both lead to good clinical outcomes, and insufficient evidence is available to determine when surgical intervention is indicated** [1].

That second half is the important one. The dispute is not about whether either treatment works. It is that the threshold for choosing surgery – the point at which the fracture is judged too large, or the joint too subluxed – rests on convention rather than on comparative evidence.

Where a fragment involves more than a third of the joint surface, or the distal phalanx has subluxed, surgery is generally indicated – but **a significant advantage of surgical management, even in those complicated cases, has yet to be clearly proven** [2].

### SPLINTING WORKS, AND THE NUMBER THAT MATTERS IS HOW LONG

The orthotic evidence is more concrete. Two of three studies found a large effect size for orthotic intervention, **ranging from 2.17 to 12.12**, with a recommended immobilisation duration of **6 to 8 weeks**, and additional weeks where a lag persists [3].

Two practical points follow. The first is that the splint must hold the fingertip straight continuously – the tendon ends are held apposed by position alone, and a few minutes of flexion while washing restarts the clock. The second is that “additional weeks where a lag persists” is part of the protocol, not a sign of failure.

### WHY A RESIDUAL DROOP IS OFTEN ACCEPTABLE

A small permanent extension lag after treatment is common, and it is usually compatible with normal hand use. The distal joint contributes relatively little to grip, and most people adapt to a few degrees of droop without noticing it functionally.

That matters when weighing surgery for an imperfect result, because operating on this joint is not without cost: the fragment is small, the skin is thin, and pin or wire fixation of a joint this size carries risks of infection, nail deformity and joint stiffness that must be set against a cosmetic-to-mild functional gain. Given the reviews above cannot demonstrate an advantage for surgery even in the complicated cases, accepting a modest lag is an evidence-consistent choice rather than a compromise.

### THE DEFORMITY THAT IS NOT A MALLET FINGER

Mallet finger is one of a family of closed extensor mechanism injuries, distinguished mainly by where along the tendon the failure occurs – mallet at the fingertip, boutonnière at the middle joint, and sagittal band injury at

the knuckle [4]. They are frequently confused with one another early, when swelling obscures the pattern, and each has a different splinting position. Splinting a boutonnière as though it were a mallet holds the wrong joint, which is why the diagnosis is worth confirming before six weeks of immobilisation are committed to.

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## REFERENCES

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