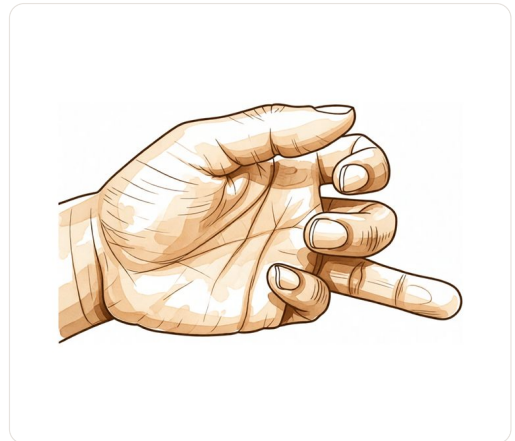


Jersey Finger (Flexor Tendon Avulsion)

Jersey finger: the deep flexor tendon pulls off the fingertip, so the very tip can no longer curl.

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What you're feeling

Jersey finger usually happens in a moment you remember clearly, most often while gripping during sport. A classic example is grabbing a fistful of an opponent's jersey in rugby or football as they pull away, which is where the name comes from. There is a sudden sharp pain at the fingertip, and afterwards the finger swells and may bruise.

The tell-tale sign is that you **can't bend the very tip of the finger**. The fingertip joint (the small joint nearest the nail, called the DIP joint) won't curl into your palm when you try to make a fist, even though the rest of the finger moves. The ring finger is by far the most commonly affected. Some people also notice a tender lump further down the finger or even in the palm: that lump is the end of the tendon, which has snapped off the bone and sprung back like a released elastic band.

What's actually happening

A strong tendon called the **flexor digitorum profundus** (FDP) runs along the palm side of each finger and attaches to the small bone at the fingertip. Its job is to bend that last joint. In a jersey finger, the finger is being forced straight at the exact moment the muscle is pulling hard to bend it, and the tendon tears away from where it anchors to the fingertip bone, sometimes pulling off a small chip of bone with it.

How far the loose tendon end springs back matters a great deal, and surgeons group these injuries by exactly that (the Leddy-Packer classification). When the tendon retracts only a short way and stays in the finger, it usually keeps some of its blood supply and can wait a little. When it springs all the way back into the palm, it loses its blood supply and the channel it normally glides through (the pulley system) starts to scar and close. That is why a fully retracted jersey finger is **time-critical**: the longer it is left, the harder it becomes to bring the tendon back and reattach it. An injury where a fragment of bone is still attached often stays put and can sometimes be dealt with a little later.

What we can do about it

In our clinic, Dr Kieran Hirpara manages this condition by first confirming the diagnosis through a careful assessment of your history and examination. We often begin with non-operative care for long-standing issues, turning to surgery only when that approach does not provide enough relief.

Jersey finger is almost always treated with surgery to reattach the tendon to the bone. There are a couple of ways to do this depending on what the tendon did:

- If the tendon has pulled clean off the bone, it is reattached using a small anchor placed in the bone, or with stitches passed through the fingertip and tied over a button (a “pull-out” repair).
- If it took a fragment of bone with it, that fragment is put back and held in place, usually with a tiny screw, wire or small plate.

The single most important factor is timing. A tendon that has retracted into the palm generally needs to be repaired **within about 7 to 10 days**, before it loses too much length and blood supply. An injury held by a bony fragment can often be fixed a little later. This is why getting assessed quickly genuinely changes what is possible.

If the injury is missed or only picked up weeks or months later, a simple reattachment may no longer be possible. In that situation the options are bigger operations: rebuilding the tendon with a graft, or, if the fingertip joint is the problem, fusing that small joint to give a stable, pain-free finger. After any of these repairs, a carefully staged hand-therapy programme is essential to get the tendon moving safely without it pulling apart while it heals.

What to expect

When a jersey finger is caught early and repaired well, the outlook is good and most people regain strong, useful movement of the fingertip. Recovery is not quick, though. A repaired flexor tendon is fragile for the first several weeks, so you will wear a protective splint and follow a hand therapist’s programme that gradually and safely reintroduces movement, and rushing this is the main way a repair fails. It typically takes a few months to get back to full grip and heavier activities, and your therapist and surgeon will guide the timing of your return to sport or manual work.

It is worth knowing that even a good repair may leave the fingertip joint a little stiffer than the other side. Injuries that were treated late, or that needed a graft or a joint fusion, tend to have more limited fingertip movement, which is exactly why early treatment is so worthwhile.

When to see someone

- **You can’t bend the tip of a finger after a gripping injury.** This is the key sign of a jersey finger and it should be checked **promptly: do not wait to see if it settles.** What looks like a “jammed” or sprained finger can be a tendon that has torn off the bone, and the best results come from early repair.

- A tender lump in the finger or palm after such an injury, especially with loss of fingertip bending.
- Significant pain, swelling or bruising of a finger after a sporting or gripping injury that isn't settling.
- Any finger injury where movement, sensation or the look of the finger seems wrong: when in doubt, have it assessed, because the window for the best outcome can be short.

In more depth

This section goes further than you need for your own treatment decisions. Jersey finger is worth the extra reading because it is the hand injury where delay most directly narrows the options – the tendon does not stay where it tore – and because the laboratory comparison of repair methods points one way while the clinical concerns point another.

WHY THE CLOCK MATTERS MORE HERE THAN ELSEWHERE

The flexor digitorum profundus tendon bends the fingertip. In this injury it avulses from its attachment on the distal phalanx, usually when a finger catches in clothing while gripping – the classic mechanism from which the injury takes its name.

Once detached, the tendon retracts up the finger, and how far it goes determines what can be done. If it stays near the fingertip, held by its blood supply and pulley system, it can be reattached straightforwardly. If it retracts into the palm, its blood supply is torn, the sheath it must pass back through begins to scar, and the muscle itself starts to shorten.

The prognostic factors reflect exactly this: **the extent of proximal tendon retraction, the chronicity of the avulsion**, and the presence of an associated bone fragment [1]. A fragment is paradoxically good news – it usually means the tendon is anchored near the fingertip and has not retracted far.

This is why jersey finger is treated with urgency that a patient may find disproportionate to a finger that is not especially painful and still mostly works.

IT IS EASY TO MISS, AND THE REASON IS ANATOMICAL

The finger looks nearly normal. The superficialis tendon is intact, so the middle joint still bends, and casual observation of a hand closing shows nothing obviously wrong.

The only reliable test is to hold the middle joint straight and ask the person to bend just the fingertip. If the profundus is detached, that movement is absent – and it is absent completely rather than weakly. This is worth knowing because the injury is frequently attributed to a sprain in the first week, which is the week in which the options are widest.

THE LABORATORY FAVOURS SUTURE ANCHORS; THE CLINICAL PICTURE IS MORE BALANCED

Two repair methods dominate: a suture passed through the bone and tied over a button on the nail, and a suture anchor placed into the bone itself.

Pooling biomechanical studies across **201** specimens, suture anchor repair showed **increased initial construct stiffness and less gap formation** than suture button pullout, with **no significant difference in ultimate failure load** [2].

Set against that, the clinical review notes that **multi-strand repairs perform better**, that **gapping may be seen with pullout suture–dorsal button repairs**, and that **failure through bone pullout remains a concern with suture anchor methods** [1].

So each method has a characteristic weakness: the button construct can stretch and gap, and the anchor can pull out of a small bone. The stiffness advantage measured in the laboratory is real, but it addresses only one of the two failure modes – which is a good illustration of why biomechanical superiority does not automatically translate into a better clinical result.

WHAT IS LOST IF IT IS NOT REPAIRED

An unrepaired profundus leaves a fingertip that cannot actively bend. For many people that is tolerable, and where the injury presents very late, accepting it is a legitimate choice – the alternatives at that stage are staged tendon grafting or fusing the fingertip joint, both considerably larger undertakings than an early reattachment.

The functional cost is specific rather than general: gripping small objects, and the last part of closing the hand around a handle. It is the difference between a hand that works and a hand that works completely, and how much that matters depends entirely on what the hand is for.

REFERENCES

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2. Imbergamo CM, Sequeira SB, Miles MR, Means KR. A meta-analysis of biomechanical studies for suture button pullout versus suture anchor fixation for flexor digitorum profundus reinsertion. Hand (N Y). 2022;19(4):671-8.