

Dupuytren's Disease

Dupuytren's disease: firm cords in the palm draw the fingers down.

Kieran Hirpara © ⓘ ⓘ 4.0



What you're feeling

You may notice a thickened cord or lump in your palm. This is the early sign of Dupuytren's disease, a condition where the tissue under your skin tightens. Over time, this tightening pulls one or more fingers toward your palm. You might find it hard to lay your hand flat on a table or slide it into a tight pocket. The change usually happens slowly, so you may not notice it until your hand feels stiff or limited.

The affected finger often feels tight and uncomfortable. This sensation can worsen after you have been using your hand for a while, such as after gardening, typing, or lifting heavy objects. You might also feel stiffness when you first wake up in the morning. While pain is not always the main feature, the constant pull on your finger joints can cause aching. This discomfort may make simple tasks difficult, like shaking hands, washing your face, or putting on gloves.

In some cases, the disease progresses to a point where your finger cannot straighten fully. This is called a contracture. You might struggle to perform daily activities that require an open hand, such as holding a plate, using a touch screen, or reaching for items on a high shelf. If you have had surgery for trigger finger in the past, you may be at a higher risk of developing this condition. Your surgeon will check how much your finger can bend and straighten to determine the best way to help you regain function and comfort.

What's actually happening

Dupuytren's disease is a condition where the thick tissue layer under the skin of your palm, called the fascia, becomes thickened and tight. Think of this fascia like a rope that runs from your palm into your fingers. Normally, this rope is loose and flexible, allowing your fingers to straighten and bend freely. In Dupuytren's, the rope develops knots and shrinks. This shortening pulls your fingers into a bent position, making it hard to lay your hand flat on a table.

The exact cause is not always clear, but hand trauma and repetitive mechanical stress can trigger the changes. This includes injuries from accidents or even previous surgeries. The disease affects the structures that help you extend your fingers. As the tissue tightens, it creates a deforming force that overrides your normal hand movement. This is why your fingers may feel stiff or stuck in a curled position over time.

Your surgeon will look at how this tightness affects your daily life. The goal of treatment is to release this tension. Whether through injection, needle procedure, or surgery, the aim is to restore the length of that ‘rope’ so your fingers can straighten again. Many patients find that correcting this deformity significantly improves their ability to perform everyday tasks. Hand function improves when the pull on your fingers is reduced.

We monitor your progress using simple measures of how well you can move your hand. While some treatments may require repeat procedures over the years, surgical options like limited fasciectomy are often considered the most reliable for long-term results. The focus is always on giving you back the use of your hand and improving your quality of life.

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 to help you keep your hand moving. We teach you gentle stretching exercises to maintain flexibility in your fingers. You may use splints to hold your fingers in a straighter position. This approach aims to slow the tightening of the tissue in your palm. We usually recommend trying these methods for a set period to see if they improve your daily function.

If you experience pain or stiffness, we discuss medical management options. We may suggest simple pain relief or anti-inflammatory medications to ease discomfort. In some cases, we consider injections to reduce inflammation in the affected area. These treatments can help manage symptoms and improve your range of motion in the short term. We tailor the choice of medication or injection to your specific needs and health history.

When conservative care does not provide enough improvement, we consider surgery. We recommend this step when the tightening of your palm tissue begins to limit your ability to use your hand for everyday tasks. Surgery involves removing or loosening the tightened tissue to straighten your fingers. We perform this procedure to restore function and improve the normality of your hand movement. We discuss the benefits and risks with you to ensure it is the right choice for your situation.

What to expect

Dupuytren’s disease is a long-term condition. It causes thickening of the tissue under your skin. This can pull your fingers into a bent position. The condition tends to persist or progress over time. It does not usually settle on its own. If left untreated, the contracture often worsens. This can limit your ability to straighten your hand.

Treatment aims to improve finger movement and hand function. Surgery remains the gold-standard treatment for progressive cases. Limited palmar fasciectomy is the most common surgical option. It involves removing the thickened tissue. This procedure offers substantial long-term benefits in function and disease control. It has the lowest reintervention rate compared to other treatments. However, limited fasciectomy carries a significant risk for complications.

Other options include collagenase injections or needle fasciotomy. These are less invasive but have higher rates of recurrence. Recurrence after treatment is common. Studies show a mean 3.8 years of follow-up with frequent recurrence. Long-term reintervention rates are higher with collagenase treatment than with surgical fasciectomy. About 10% of patients treated with collagenase injections underwent surgery within 5 years.

You may notice improvements in hand normality after treatment. Your hand function typically improves significantly. However, high prevalence of joint contracture can remain five years after treatment. Some patients may perceive a recurrence of symptoms. There is low level of evidence that both surgical and nonsurgical treatments provide clinically important improvements for recurrent Dupuytren contracture.

If you have had trigger finger surgery, you may have a higher risk of developing new-onset Dupuytren disease. This condition may develop at an expedited rate compared to those managed by other interventions. You might require subsequent treatment by fasciectomy.

Your surgeon will discuss the best approach for your specific case. Outcomes vary based on the severity of your contracture. We aim to set realistic expectations for your recovery. You should expect a gradual improvement in hand function. Regular follow-up is important to monitor for any changes.

When to see someone

See your GP if you notice a lump in your palm or fingers that stops you from straightening your hand. Ask for a specialist review if symptoms interfere with daily tasks like buttoning clothes or shaking hands. Seek urgent care if you experience persistent pain that does not improve with rest, sudden worsening of stiffness, or weakness and instability in the hand. These signs may indicate complex regional pain syndrome or other complications. Early assessment helps your surgeon determine if treatment is needed to prevent further joint contracture and maintain hand function.

In more depth

This section goes further than you need for your own treatment decisions. Dupuytren's is worth the extra reading because the choice between treatments is not really a choice about which one works – it is a choice about which pattern of recurrence and risk you would rather live with.

THE EVIDENCE BASE IS WEAKER THAN THE CONFIDENCE AROUND IT

It is worth starting here. A review in the Bone & Joint Journal concluded that there remains **limited evidence** to guide management of Dupuytren's contracture, while noting that percutaneous needle aponeurotomy tends to produce higher patient satisfaction with fewer adverse events [1].

That should temper any strong recommendation you are given. The condition is common, the treatments are long-established, and the comparative trials that would settle the question have largely not been done.

WHAT COLLAGENASE ACTUALLY OFFERS

Collagenase injection – dissolving the cord rather than cutting it – changed practice quickly. A review of **2,675** patients found it safe and effective for improving hand function, with most adverse events minor and self-resolving [2].

The same review carries the number that matters for expectation-setting: **23%** of successfully treated joints went on to recur [2]. Recurrence is not a treatment failure here; it is the natural history of the disease reasserting itself. Dupuytren's is a biological process in the palm, and no current treatment stops the process – they all address the cord it has already made.

COMPARING THE RISKS HONESTLY

The trade-off against surgery is not that one is safe and the other is not, but that they fail differently. Comparing collagenase with fasciectomy across **8,809** patients, adverse events seen with collagenase and **not** reported after fasciectomy included peripheral oedema, extremity pain and injection-site reactions [3].

Read that carefully: those are the *additional* problems, and they are mostly transient and local. What the injection avoids is a surgical wound in the palm, with its longer recovery, stiffness risk and scar. What surgery offers in return is more complete removal of diseased tissue and, generally, a longer interval before recurrence.

So the decision is legitimately personal. A patient who cannot spare weeks of restricted hand use has a strong reason to prefer the injection even knowing recurrence is likelier. A younger patient with aggressive disease may reasonably accept a bigger operation once rather than a smaller one repeatedly.

PRACTICE MOVED BEFORE THE EVIDENCE SETTLED

Between the introduction of collagenase and the years following, its use rose to substantial levels in the United States with corresponding falls in the proportion of patients receiving fasciotomy and fasciectomy, with patient age and comorbidities influencing which treatment was chosen [4].

That is a useful piece of context when a clinician tells you what is “usually done”. What is usually done has shifted considerably within a decade, on evidence the reviews above describe as limited – which is a reason to ask why a particular option is being recommended for you rather than assuming current practice reflects settled science.

REFERENCES

1. Soreide E, Murad MH, Denbeigh JM, Lewallen EA, Dudakovic A, Nordsletten L, et al. Treatment of Dupuytren's contracture: a systematic review. *Bone Joint J.* 2018;100-B(9):1138-45.
2. Sandler AB, Scanaliato JP, Dennis T, Gonzalez Trevizo GA, Raiciulescu S, Nesti L, et al. Treatment of Dupuytren's contracture with collagenase: a systematic review. *Hand (N Y).* 2021;17(5):815-24.
3. Peimer CA, Wilbrand S, Gerber RA, Chapman D, Szczypa PP. Safety and tolerability of collagenase *Clostridium histolyticum* and fasciectomy for Dupuytren's contracture. *J Hand Surg Eur Vol.* 2014;40(2):141-9.

CQ HAND + UPPER LIMB

Dr Kieran Hirpara – Specialist Orthopaedic Surgeon
Suite 2, Level 1, Mater Private Hospital Rockhampton, 31 Ward Street, The Range, QLD 4700
Phone 07 4863 6556 · office@cqupperlimb.com.au · cqupperlimb.com.au

4. Lipman MD, Carstensen SE, Deal DN. Trends in the treatment of Dupuytren disease in the United States between 2007 and 2014. *Hand (N Y)*. 2016;12(1):13-20.