
Dupuytren's contracture

Summary

- Dupuytren's contracture is a thickening and shortening of tissue in the palm, resulting in clawed fingers as they are pulled towards the hand.
 - The cause of Dupuytren's contracture is unknown, but risk factors include advancing age, Scandinavian and Celtic ancestry, and certain conditions such as epilepsy, alcoholism and diabetes.
 - Treatment options include injections of corticosteroids into the palm and surgery.
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The palm of the hand contains a deep layer of tissue called the palmar fascia, which extends across the palm to the fingers. Dupuytren's contracture is a thickening and shortening of this web of fascia that gradually causes clawing of the fingers as they are pulled towards the palm. The ring and little finger are usually targeted, but any finger can be affected.

The condition tends to progress in fits and starts, and may take decades to finally limit the functioning of the hand. The exact cause is unknown, but the incidence of Dupuytren's contracture is higher among certain groups including:

- older men
- people with diabetes
- people with epilepsy who are treated with phenytoins
- people who abuse alcohol.

Dupuytren's contracture can sometimes run in families, which suggests a genetic susceptibility. Treatment depends on the severity of the condition, but may include injections of corticosteroids into the palm and surgery.

Symptoms of Dupuytren's contracture

The features include:

- A lump or nodule appears on the palm, usually close to the base of the ring or little finger.
- There is the appearance of a thickened cord running along the palm to the fingers.
- Over time, as the contracture develops, the fingers become clawed as they are pulled towards the palm.
- The hand bows.
- The fingers are completely pulled against the palm.
- Often, the skin of the palm is dimpled and puckered.
- There is rarely any associated pain.

Cause of Dupuytren's contracture

The exact trigger that causes the palmar fascia to thicken and contract is unknown. Potential risk factors include manual labour with vibration exposure, prior hand trauma, smoking, hyperlipidemia, Peyronie disease and complex regional pain syndrome (CRPS). A family history of the condition is often present.

Other contributing factors may include:

- Age – the condition is more common in middle to later years of life.
 - Gender – males are three times as likely to develop disease and are more likely to have the condition with more severity.
 - Ancestry – those with Celtic or Scandinavian ancestry are at increased risk.
 - Certain medical conditions – people with diabetes and epilepsy have a higher incidence of the condition, while
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those with rheumatoid arthritis have lower incidence.

- Alcoholism – the contracture tends to be common, and comparatively more severe, in alcoholics.

Conditions linked to Dupuytren's contracture

In most cases, only the hands are affected. Other associated difficulties can include:

- **Garrod's pads** – the finger joints on the same hand may enlarge and thicken.
- **Ledderhose disease** – creates thickening and shortening of the foot's deep connective tissue. As the disease progresses, it can cause quite severe pain while walking.
- **Peyronie's disease** – there may be thickening and shortening of tissue in the penis.

Treatment for Dupuytren's contracture

Treatment depends on the severity of the condition. In its earlier stages, treatment may include injections of corticosteroids into the fascia. These medications reduce any localised tenderness and may help to delay subsequent thickening of the tissue.

More recent treatments showing promise include therapy with calcium channel blockers, treatment with gamma-interferon and percutaneous needle fasciotomy.

In severe or advanced cases, the person is unable to lay their hand palm-down on a flat surface, or their fingers have contracted into their palm so that the hand is no longer functional. Surgery is then the best option.

Dupuytren's contracture can sometimes return after surgery, either at the same site or elsewhere on the palm. Usually, the contracture progresses at the same speed as previously.

Surgical techniques for Dupuytren's contracture

Depending on the severity of the condition, surgery options may include:

- cutting the fascia bands through small incisions in the palm
- removing the thickened fascia
- removing the fascia and associated skin, and using a skin graft to seal the palm
- amputation of an affected finger, if the contracture has returned so many times that corrective surgery is no longer possible.

Occupational therapy for Dupuytren's contracture

Occupational therapy is needed after surgery to speed recovery and reduce the risks of the contracture returning.

Techniques may include:

- splints worn at night for a few months to straighten the finger
- sometimes, a splint worn during the day
- special hand exercises to encourage flexibility
- gentle massage with moisturising hand cream.

Where to get help

- Your doctor

Things to remember

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- Treatment options include injections of corticosteroids into the palm and surgery.

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