CONDITION

Dupuytren contracture

Dupuytren contracture is a gradual thickening of palm tissue that can pull one or more fingers into a bent position.

WHAT IT IS
Thickened palm tissue that gradually pulls fingers inward

BODY SYSTEM
Hands and connective tissue

MAIN SYMPTOMS
Palm lumps, tight cords, bent fingers, reduced hand function

WHAT CAUSES IT
Inherited tendency with abnormal connective tissue thickening

HOW IT IS DIAGNOSED
Hand examination and tabletop test

MAIN TREATMENT
Monitoring, hand procedures, or surgery

CAN IT BE CURED?
No - treatment does not remove the underlying tendency

IS IT AN EMERGENCY?
No - routine assessment is usually appropriate

LONG-TERM OUTLOOK
Often progresses slowly; recurrence after treatment is common

Overview

Dupuytren contracture affects the layer of connective tissue beneath the skin of your palm. This layer, called the palmar fascia, helps support the hand.

In this condition, areas of the fascia become thicker and shorter. Small lumps may form first. Over time, the thickened tissue can develop into firm cords that pull one or more fingers toward the palm. The ring and little fingers are affected most often.

The condition is also called Dupuytren's disease, although it is not an infection and cannot spread to other people. It is not cancer.

Changes usually develop over months or years. Some people have only a small lump that never causes much difficulty. Others develop a contracture, meaning a finger becomes fixed in a

bent position and cannot fully straighten.

Dupuytren contracture is usually painless, but it can interfere with washing, dressing, wearing gloves, shaking hands, using tools, or putting your hand flat on a surface. Treatment is generally considered when the loss of movement begins to affect daily life.

Symptoms

The first sign is often a firm lump, or nodule, beneath the skin of the palm. It may be tender when it first appears, although tenderness often settles.

As the condition develops, you may notice:

The changes may affect one or both hands. One hand can be more severely affected than the other.

Dupuytren contracture does not usually cause tingling or numbness. It also does not normally cause sudden severe pain, redness, or swelling. Those symptoms may have another cause and should be assessed separately.

- One or more firm lumps in the palm
- Pits, puckering, or thickening of the palm skin
- A tight cord running from the palm toward a finger
- Difficulty straightening the ring or little finger
- Reduced ability to place the hand flat on a table

Causes and risk factors

The exact cause is not fully understood. Cells in the connective tissue begin producing and tightening excess fibrous tissue, similar to scar tissue. This process creates the nodules and cords.

Genes have an important role. The condition can run in families, but inheriting a tendency does not mean you will definitely develop a contracture. It is more common among people with Northern European ancestry, though it can affect anyone.

The likelihood increases with age and is higher in men. Other factors associated with Dupuytren contracture include diabetes, smoking, and high alcohol intake. These associations do not prove that any one factor caused an individual case.

Dupuytren contracture is not usually caused by typing, manual work, or ordinary hand use. A

hand injury or operation may make an existing tendency more noticeable, but many people develop the condition without a previous injury.

Similar thickened tissue can sometimes occur in the soles of the feet or, less commonly, the penis. These related conditions do not mean that the hand problem is spreading through the body.

Diagnosis

A healthcare professional can usually diagnose Dupuytren contracture by looking at and feeling your hand. They will check for nodules, skin changes, tight cords, and loss of finger movement.

You may be asked to place your hand palm-down on a flat surface. Difficulty laying the palm and fingers flat is known as a positive tabletop test. The angles of the affected finger joints may also be measured to track changes over time.

Blood tests, X-rays, ultrasound scans, and other imaging are not usually needed to confirm the diagnosis. They may be considered if your symptoms suggest another problem, such as arthritis, a tendon injury, trigger finger, or a lump with an uncertain cause.

Treatment and management

A palm lump without meaningful loss of movement may not need active treatment. Routine monitoring can show whether the condition is stable or progressing. Treatment is not normally used simply because a nodule is present.

Stretching cannot safely break or remove a Dupuytren cord. A splint also does not usually stop an untreated contracture from progressing. Hand therapy and splinting may have a role after a procedure, based on the type of treatment and your recovery.

When a contracture affects hand function, treatment may release or remove the tight tissue. The main options are:

No procedure removes the underlying tendency to form Dupuytren tissue. The condition can return in a treated finger or develop elsewhere in the same or opposite hand.

The best option is influenced by which joints are involved, how far the finger is bent, how quickly the condition is changing, previous treatment, and your priorities for recovery and durability. A contracture in the middle joint of a finger can be harder to correct fully than one at the knuckle.

After treatment, wound care and gradual hand use are important. A hand therapist may provide exercises or a temporary night splint. Follow the recovery instructions given for your specific procedure rather than forcing the finger straight.

Radiotherapy is sometimes offered for early, actively changing nodules in specialist settings. Evidence about its long-term benefit is limited, so it is not a routine treatment everywhere.

- Needle fasciotomy: A needle is passed through the skin to divide the cord. Recovery is often relatively quick, but the contracture can return.
- Collagenase injection: An enzyme is injected into a suitable cord to weaken it before the finger is manipulated. Availability differs between countries. Bruising, swelling, and skin tears can occur.
- Fasciectomy: An operation removes some of the thickened tissue. Recovery takes longer than after needle treatment, but correction may last longer.
- Dermofasciectomy: The affected tissue and overlying skin are removed and replaced with a skin graft. This may be considered for selected severe or recurrent contractures.

Complications

An untreated contracture can gradually limit hand function. A tightly bent finger may make it difficult to wash and dry the palm, cut fingernails, wear gloves, reach into a pocket, or grip larger objects. Skin in a deep palm crease may become irritated.

Procedures can also cause complications. These include bleeding, infection, skin tears, stiffness, reduced sensation, and injury to a nearby nerve, blood vessel, or tendon. Some people develop complex regional pain syndrome, an uncommon condition involving persistent pain, swelling, stiffness, and sensitivity after an injury or procedure.

Even after successful correction, the finger may not become completely straight. Recurrence is common with all treatments, although its timing and likelihood differ between procedures.

Prevention

There is no proven way to prevent Dupuytren contracture because inherited and age-related factors play a major part. Hand exercises, massage, and splints have not been shown to prevent the abnormal tissue from developing.

Avoiding smoking and limiting alcohol support general health, but they cannot guarantee that the condition will not occur or progress. Protecting your hands from injury is sensible, though

ordinary hand use does not cause Dupuytren contracture.

Living with it and what to expect

Dupuytren contracture usually changes slowly. A nodule may remain stable for years, or cords and finger bending may gradually develop. It is not possible to predict the course precisely from the appearance of one lump.

You may find it useful to check occasionally whether your palm still lies flat on a table. Photographs taken from the same angle can also help you notice gradual changes. Frequent checking is not necessary.

If the condition remains mild and does not interfere with daily life, you may only need routine review. If movement becomes more limited, treatment can often improve the finger's position and function. Earlier assessment may be helpful once a finger is becoming fixed, particularly when the middle joint is affected.

Following a procedure, recovery ranges from days to several weeks or longer, depending on the treatment. Surgery generally needs more wound care and rehabilitation than a needle or injection procedure.

Many people continue their usual work, hobbies, and exercise, with adjustments during recovery. Repeat treatment may be possible if the contracture returns, but each procedure can leave scar tissue and may influence later options.

When to get medical help

Arrange a routine appointment if you notice a new palm lump, a firm cord, or a finger that is gradually becoming harder to straighten. Assessment is also appropriate if the change affects washing, dressing, work, hobbies, or your ability to place the hand flat.

Seek prompt medical advice after a procedure if you develop increasing redness, warmth, swelling, discharge, fever, worsening pain, or a wound that is opening. New persistent numbness or difficulty moving the finger should also be assessed.

Get urgent or emergency help if a finger becomes pale, blue, cold, or suddenly loses sensation, especially after treatment or an injury. Uncontrolled bleeding or rapidly increasing swelling after a procedure also needs urgent care.

Sudden severe hand pain or a sudden inability to move a finger is not typical of Dupuytren contracture. It may indicate an injury or another hand condition.

Common questions

Is Dupuytren contracture cancer?

No. The lumps and cords are non-cancerous overgrowths of connective tissue. They do not spread to internal organs. A lump that looks unusual, grows rapidly, or does not fit the usual pattern should still be examined.

Can I straighten Dupuytren contracture with exercises?

Exercises cannot remove or break a Dupuytren cord. Forceful stretching may injure the skin or finger. Exercises are more commonly used after a procedure to support movement and recovery.

When does Dupuytren contracture need treatment?

A painless lump alone often does not need treatment. Treatment is usually considered when a finger can no longer straighten properly and the contracture affects function. The decision is based on the affected joint, degree of bending, progression, and what matters in your daily life.

Can Dupuytren contracture come back after surgery?

Yes. Surgery removes affected tissue but does not remove the tendency to form new Dupuytren tissue. A contracture may return in the treated area or appear in another finger. Less invasive procedures generally have faster recovery but may need repeating sooner.

Is Dupuytren contracture the same as trigger finger?

No. Trigger finger occurs when a finger tendon catches in its surrounding tunnel, often causing clicking or locking. Dupuytren contracture involves tissue beneath the palm skin and gradually holds the finger bent. Both conditions can occur in the same hand.

Will Dupuytren contracture affect my whole body?

It mainly affects the hands. Some people have related tissue thickening in the feet or penis, but most do not. It does not spread through the bloodstream and does not damage internal organs.

Sources

- NHS. Dupuytren's contracture
- British Society for Surgery of the Hand. Dupuytren's disease
- American Academy of Orthopaedic Surgeons, OrthoInfo. Dupuytren's Disease

- National Institute for Health and Care Excellence. Needle fasciotomy for Dupuytren's contracture, IPG43
- National Institute for Health and Care Excellence. Radiation therapy for early Dupuytren's disease, IPG573
- Karpinski M, Moltaji S, Baxter C, Murphy J, Petropoulos JA, Thoma A. A systematic review of non-surgical treatments for Dupuytren's disease. Plastic Surgery. 2023