

Dupuytren's Contracture

Information & Treatments

What is Dupuytren's contracture?

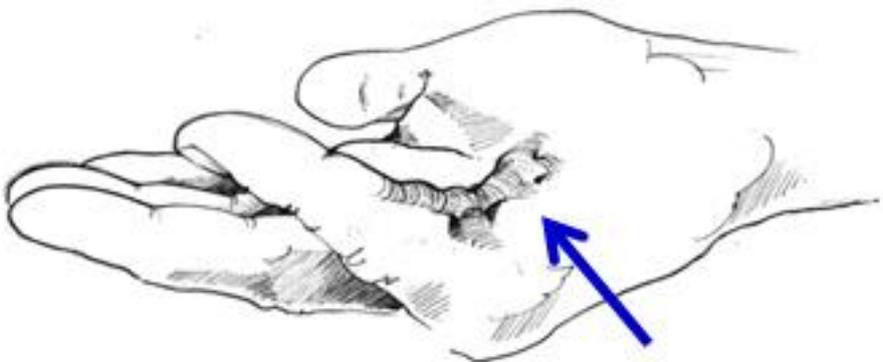
It is a common condition that usually arises in middle age or later and is more common in men than women. Firm nodules appear just beneath the skin in the palm of the hand, and in some cases they extend to form cords. This can prevent the fingers from straightening properly. The nodules and cords may be associated with small pits in the skin. It may also be associated with scar tissue lumps in the back of knuckle joints.

Why does it occur?

The cause is unknown, but it is more common in Northern Europe than elsewhere and it often runs in families. There is a higher incidence of Dupuytren's disease in people with diabetes, and who smoke and have high alcohol consumption. It occasionally appears after injury to the hand or wrist, or after surgery to these areas.

What are the symptoms?

Dupuytren's disease begins with nodules in the palm, often in line with the ring finger. The nodules are sometimes uncomfortable on pressure in the early stages. In about one affected person out of every three, the nodules extend to form cords that pull the finger towards the palm and prevent it straightening fully. Without treatment, one or more fingers may become fixed in a bent position. The web between thumb and index finger is sometimes narrowed. This process is usually slow, occurring over months and years rather than weeks.



Cord prevents straightening of the little finger

What is the treatment?

Treatment such as stretching, splinting, strengthening or radiotherapy

(<https://www.nice.org.uk/guidance/ipg573/ifp/chapter/What-has-NICE-said>) does not have any significant effect and does not stop the condition from progressing.

Injection of collagenase (an enzyme) is helpful in some cases. Your doctor can discuss the indications, current evidence, risks and benefits for the use of collagenase injections. Several injections may be needed if multiple joints are contracted.

Surgical intervention is not needed if fingers can be straightened fully, however, it is likely to be helpful when it has become impossible to put the hand flat (palm down) on a table.

Surgery can usually make bent fingers straighter, though not always fully straight, and it cannot eradicate the disease.

Over the longer term, Dupuytren's disease may reappear in operated digits or in previously uninvolved areas of the hand.

The surgeon can advise on the type of intervention best suited to the individual, and on its timing. Treatment options are:

1. Percutaneous needle Fasciotomy (PNF).

- The contracted cord of Dupuytren's disease is simply cut in the palm, in the finger or in both, using a small knife or a needle. The procedure is considered particularly suitable for older patients who are unsuitable for more major surgery.
- The main benefit offered by this procedure is a short-term reduction in the degree of contracture and that it can be easily repeated.
- Recurrence rate is approximately 50% at 3–5 years and seems to depend on the severity of the disease.
- The main risks are nerve injury, tendon injury and infection, the rate being 1% or less.

2. Segmental fasciectomy.

- Short segments of the cord are removed through one or more small incisions. 

3. Partial/Regional fasciectomy. (This is the most common operation.)

- Through a single longer incision, the entire cord is removed.
- Usually done under a regional anaesthetic as day surgery.
- Z-shaped incision is made and removal the diseased tissue. In some cases a skin graft is needed to replace the skin damaged by the disease. This is in severe cases or where repeated surgery is needed.

4. Dermofasciectomy.

- The cord is removed together with the overlying skin and the skin is replaced with a graft taken usually from the upper arm or groin. This procedure is usually undertaken for recurrent disease, or for extensive disease in a younger individual. 

After Surgery

You will be placed in a bulky dressing, which should stay on until you return to the clinic at about 2 weeks. When you are first seen in the clinic, your dressings will be removed and a thermoplastic splint will be made for you by the therapist to keep your operated finger straight for several weeks. This may then be removed during the day, but worn every night for 4-6 months depending on the individual.

There will be a period when you may not be able to use your hand, including driving, normally for 3 weeks. When a skin graft is used, it may be slightly longer. During this time, your rehabilitation will be guided by the hand therapist.

5. Enzyme Fasciotomy (CCH). Enzyme injection.

- CCH is recommended as an option for treating Dupuytren's contracture with a palpable cord in adults only in certain situations which your surgeon can discuss with you.

These procedures may be carried out under local, regional (injection of local anaesthetic at the shoulder) or general anaesthetic.

Risks & Consequences

Incomplete Correction		Sometimes, despite removing all the scar tissue, the finger may not fully straighten.
Recurrence	50% of cases over 3-5 years	The contracture may recur
Hand stiffness / swelling		This best treated by prevention with elevation for the first 24-48 hours. You will have hand therapy afterwards to get your hand moving again.
Infection	Affects 1% or 1 in 100	This is generally treated with oral antibiotics. Occasionally may need re-admission for Intravenous (I.V.) antibiotics or further

		surgery
Complex regional pain syndrome	Affects 0.2% or 1 in 500 people	This can be a very serious consequence with some permanent changes including stiffness in the hand and arm. CRPS can usually be avoided by staying motivated with elevation, movement and scar massage.
Nerve damage		Very rarely the nerves supplying the finger can be nicked. This will be repaired but it would take longer for the sensation to return.