

Dupuytren's Disease (Dupuytren's Contracture)



What is Dupuytren's Disease?

Dupuytren's disease is a condition that affects the connective tissue beneath the skin of the palm and fingers. It leads to the formation of thickened, fibrous tissue, which can create **nodules** (lumps) as well as **cords** of tissue. These cords gradually pull the fingers towards the palm, causing **contracture**, which makes it difficult to fully straighten the affected fingers. The condition most commonly affects the **ring** and **little fingers**, but it can involve other fingers as well.

Causes and Risk Factors

Dupuytren's disease is **multifactorial**, and while it is known to have a genetic component, the exact cause is not fully understood. Several factors are thought to contribute to the development of the disease, including:

- **Family history** (Genetic predisposition)
- **Age** (Most common in people over 50)
- **Male gender**
- **Northern European descent**
- **Diabetes**
- **Alcohol consumption**
- **Smoking**
- **Epilepsy medication (Phenytoin)**

Symptoms

Signs of Dupuytren's may include:

- **Nodules** or small, hard lumps in the palm

- **Cords** of thickened tissue forming under the skin, which can pull the fingers into a bent position
- **A dimpled or puckered appearance** of the skin on the palm
- Gradual curling of the fingers, particularly the ring and little fingers
- Difficulty straightening the fingers fully, especially when reaching or gripping objects
- In some cases, the condition may affect both hands or other parts of the body, such as the feet (Ledderhose disease) or the penis (Peyronie's disease)

Diagnosis & Investigation

Dupuytren's disease is typically diagnosed **based on clinical history and physical examination**, where the surgeon will assess:

- The presence of **nodules** and **cords** in the palm
- The degree of **finger contracture** and range of motion
- Family history and risk factors

Imaging tests (like X-rays) are rarely necessary unless there is concern about other conditions. In **rare cases**, an ultrasound may be used to assess the extent of tissue involvement.

Non-Surgical Treatment

While Dupuytren's disease cannot be cured without surgery, several non-surgical treatments can help manage symptoms:

- **Needle fasciotomy**: A minimally invasive procedure where a needle is used to break the fibrous cords. This can often be performed in the clinic setting to improve finger movement.
- **Hand therapy**: Aimed at improving flexibility and strength, especially after surgery.
- **Splinting**: While splinting is rarely effective as a standalone treatment, it may be beneficial in the post-operative phase to support the healing process and improve the range of motion after surgery.

Surgical Treatment

If non-surgical methods are ineffective or the condition severely restricts hand function, surgery may be required. The most common surgeries for Dupuytren's disease include:

- **Fasciotomy**: Cutting the fibrous cords to release the contracture, usually performed as an outpatient procedure under local anaesthetic.
- **Fasciectomy**: A more involved surgery where the affected tissue, including nodules and cords, is excised.
- **Dermofasciectomy**: Often reserved for severe disease or recurrent contracture, this procedure involves removing the fibrous tissue along with a portion of the overlying skin. A **skin graft** is usually required, which is typically taken from the **antecubital fossa** (the inner elbow area).

Both **fasciotomy** and **fasciectomy** aim to improve the ability to straighten the fingers and reduce the severity of the contracture.

Recovery

- Most patients regain improved finger movement once the wound has healed after surgery.
- **Hand therapy** is usually recommended to improve flexibility and strength after surgery.
- Normal activities can often be resumed in 4–6 weeks, depending on the extent of the surgery.

Risks

Although rare, surgery for Dupuytren's disease may have complications:

- Infection
- Nerve or vessel injury
- Scarring or stiffness
- Recurrence of the contracture (the disease may return)

When to See One of Our Hand Specialists

You should consult a hand specialist if:

- You notice any **nodules** or **cords** in the palm of your hand
- You are unable to fully straighten one or more fingers
- The condition interferes with daily activities like gripping, holding objects, or shaking hands
- You experience pain or significant loss of function in your hand

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