

## Dupuytren's Contracture

Dupuytren's contracture is a thickening of the fibrous tissue layer underneath the skin of the palm and fingers. Although painless, the thickening and tightening (contracture) of this fibrous tissue can cause the fingers to curl (flex).

Dupuytren's contracture is more common in men than in women.

### Cause



Symptoms of Dupuytren's contracture include painful bumps (nodules) under the skin that develop into tight bands of tissue, causing the fingers to curl.

The cause of Dupuytren's contracture is not known. It is not caused by an injury or heavy hand use.

There are factors that put people at greater risk for developing Dupuytren's contracture.

- It is most common in people of Northern European (English, Irish, Scottish, French, Dutch) or Scandinavian (Swedish, Norwegian, Finnish) ancestry.
- It often runs in families (hereditary).
- It may be associated with drinking alcohol.
- It is associated with certain medical conditions, such as diabetes and seizures.
- It increases in frequency with age.

### Symptoms

Dupuytren's contracture symptoms usually occur very gradually.

**Nodules.** One or more small, tender lumps (nodules) form in the palm. Over time, the tenderness usually goes away.

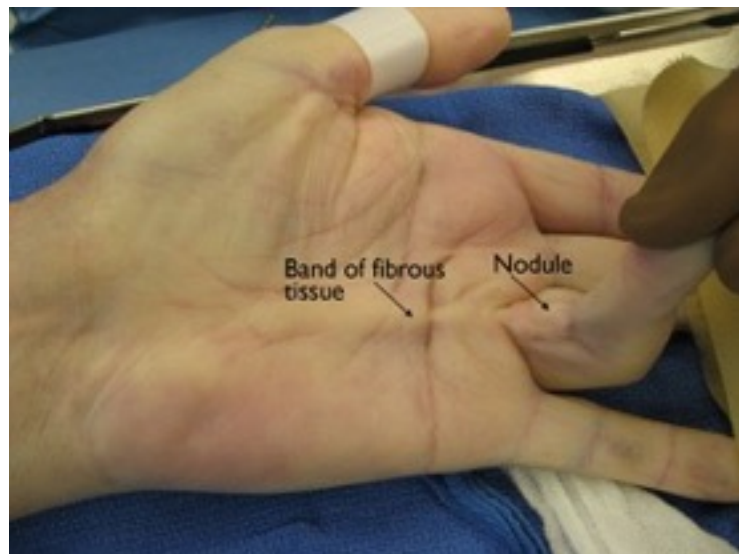
**Bands of tissue.** The nodules may thicken and contract, forming tough bands of tissue under the skin.

**Curled fingers.** One or more fingers bend (flex) toward the palm. The ring and little fingers are most commonly affected, but any or all fingers can be involved. As the bend in the finger increases, it may be hard to straighten your finger. Grasping large objects and putting your hand in a pocket becomes difficult.

## Doctor Examination

Your doctor will examine your hand and test the feeling in your thumb and fingers. Your grip and pinch strength may also be tested.

During the examination, your doctor will record the locations of nodules and bands on your palm. Using a special device, he or she will measure the amount of contracture in your fingers. Your doctor may also measure the range of motion in your fingers to determine whether there is limitation in your flexion.



Your doctor will measure the bend in your finger, and note where the bands of tissue and nodules are.

Your doctor will refer back to these measurements throughout your treatment to determine whether the disease is progressing.

## Treatment

There is no way to stop or cure Dupuytren's contracture. However, it is not dangerous. Dupuytren's contracture usually progresses very slowly and may not become troublesome for years. It may never progress beyond lumps in the palm.

If the condition progresses, nonsurgical treatment may help to slow the disease.

### **Nonsurgical Treatment**

**Steroid injection.** If a lump is painful, an injection of corticosteroid - a powerful anti-inflammatory medication - may help relieve the pain. In some cases, it may prevent the progression of contracture. Several injections may be needed for a lasting effect.

**Splints.** Splinting *does not prevent* increased bend in the finger. Forceful stretching of the contracted finger will not help either, and may speed the progression of contracture.

### ***Surgical Treatment***

Surgery is recommended when your doctor has confirmed through measurements over time that the disease is progressing. Some patients turn to surgical treatment when hand function is limited; they have trouble grasping objects or putting their hands in their pockets.

**Surgical procedure.** Surgery for Dupuytren's contracture divides or removes the thickened bands to help restore finger motion. Sometimes the wound is left open and allowed to heal gradually. Skin grafting may be needed.

**Complications.** Although rare, risks of surgery include injury to nerves and blood vessels, and infection. Permanent stiffness of the fingers may occur, although this is also rare.

**Recovery.** Some swelling and soreness are expected after surgery, but severe problems are rare.

After surgery, elevating your hand above your heart and gently moving your fingers help to relieve pain, swelling, and stiffness.

Physical therapy may be helpful during recovery after surgery. Specific exercises can help strengthen your hands and help you move your fingers.

Most people will be able to move their fingers better after surgery.

**Recurrence.** Approximately 20% of patients experience some degree of recurrence. This may require further surgery.

## **New Developments**

### ***Enzyme Injection***

An enzyme injection has recently been approved by the Federal Drug Administration for treatment of Dupuytren's contracture. It is being administered by surgeons trained in the technique. The enzyme is able to break down the tough bands and improve motion without surgery.

After numbing the hand with a local anesthetic injection, the surgeon injects the enzyme directly into the diseased tissue. During the several hours following the injection, the enzyme dissolves the contractile tissue, allowing the finger to straighten.

This procedure is performed in the doctor's office, and is associated with less pain and swelling than with surgery. Early results for this injection appear to be as good as surgical results. Although rare, the injection may cause allergic reactions or flexor tendon tears. Other complications include the same as those listed above for surgery. Early results are promising, but long-term recurrence rates have not yet been reported.

### ***Needle Aponeurotomy/ Percutaneous Needle Fasciotomy***

Needle aponeurotomy is another new, less invasive procedure being performed by surgeons trained in the technique. After numbing the hand with a local anesthetic injection, the surgeon uses a hypodermic needle to divide the diseased tissue. No incision is required and this procedure can be done in the doctor's office. Complications are no greater than with surgery, and the patient experiences less pain and swelling immediately after the procedure. Early results appear equivalent to surgery, but long-term recurrence rates are unknown.