

Fact Sheet: Dupuytren's Contracture



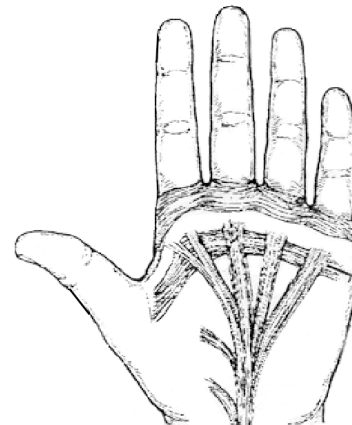
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What is Dupuytren's Contracture?

Dupuytren's contracture is named after Baron Guillaume Dupuytren, a famous French surgeon who practised in Paris in the 18th century. It is a disease of the fascia or connective tissue that lies below the skin of the palm. This fibrous tissue normally forms a fan-like layer between the skin and the tendons in the palm and extends into the fingers (see diagram below). It has tiny fibres which anchor it to the skin above and the tendon sheaths below. It is designed to immobilise the skin on the palm to aid grip in comparison to the more mobile skin on the back of the hand.

In Dupuytren's contracture, the normal fascia (fibrous tissue) becomes thickened and forms cords in the palm and fingers which contract resulting in the fingers becoming fixed in a bent position. It usually begins at 50–60 years of age but it may occur in younger people, particularly when it runs in families.



Fascia of the palm

What causes Dupuytren's Contracture?

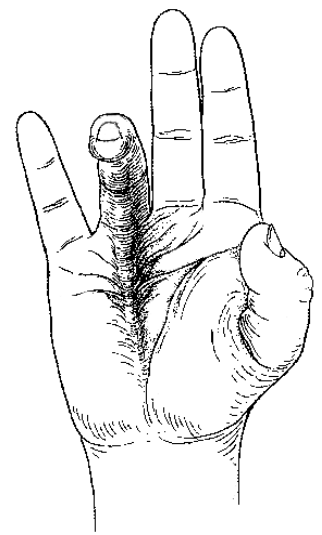
The cause is unknown. It runs in families, particularly those of Celtic or Northern European origin. It is more common in men than women. It occurs more commonly in diabetics and those on anti-epileptics. It also occurs more frequently in those with a high alcohol intake. There is no known method of prevention. It is not related to manual work. Of all the above factors, it is the genetic background of a person which puts them most at risk of developing this problem. We do not yet know which gene stimulates the development of the disorder.

What are the features?

The first sign is usually a tender nodule in the palm. The nodule is only painful for several weeks at the onset. The disease is painless after this. The nodule may gradually form a thickened cord under the skin and extend along the palm into the finger. A new nodule or cord may develop elsewhere in the same or opposite hand.

The rate at which the contracture develops varies enormously from person to person. When it develops late in life it tends to progress slowly and may never be a problem. In younger people, particularly in those in which the disease runs in the family, it may be very aggressive, causing the fingers to bend down in a flexed position due to the contracting cords of fibrous tissue.

The ring and small fingers are most often affected. Often the skin over the knuckle of the middle joint of the fingers forms thickened nodules called Garrod's knuckle pads. On rare occasions it may affect the soles of the feet with thickened painless nodules. In less than 1% of men who have the problem it may affect the penis with a contracture which can be corrected with surgery.



How is it treated?

No treatment is advised until a contracture develops which prevents the palm being placed flat on a table or other flat surface (the table top test). It is not recommended that nodules without a contracture be removed because surgery can stimulate the formation of contractures.

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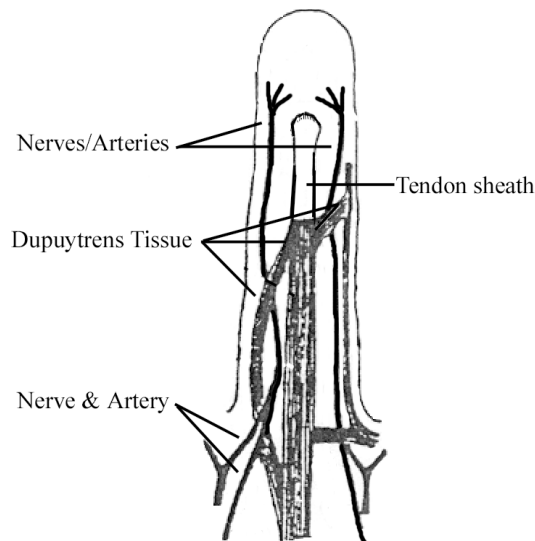


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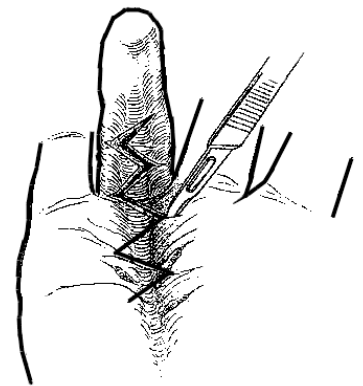
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In simple contractures in elderly patients a minor procedure under local anaesthetic can be performed in the office to correct the contracture. The wound is then dressed twice weekly for 3-4 weeks until it heals.

In most patients surgery is required. This involves day surgery or an overnight stay in hospital. It is performed under general anaesthetic and entails removing the diseased tissue from the hand with multiple zig-zag incisions. Following surgery the hand is placed in a splint to keep the fingers in the straightened position for 2-3 days. Small drains may be used to prevent blood collecting under the skin. These are removed the day after surgery. Therapy is commenced 2-4 days after surgery to prevent the fingers from becoming stiff. The sutures are removed 14 days after surgery. A splint may be worn for several weeks between exercises and at night for 3-4 months to maximise the correction of the finger deformities.



In severe disease or when surgery has been performed previously in the same area skin grafts may be required. In this situation therapy will be delayed two weeks until the grafts have healed. Occasionally a 3-4 cm incision across the palm may be left open to heal by itself when the skin is too tight following release of the contracture. This will be dressed and washed in a small spa bath twice weekly and usually takes 4 weeks to completely heal. (This is known as the McCash open palm technique). If either skin grafts or the open palm technique are likely to be needed, the surgeon shall discuss it prior to your operation.



Results

Despite surgery, the Dupuytren's tissue can reappear in the same place (recurrence) or form in other parts of the hand (extension of the disease). Unfortunately trauma such as injury to the hand or surgery to treat the condition itself, may lead to increased activity and progression of the disease. This is particularly common in those with an aggressive form of the disease known as Dupuytren's diathesis (young age at onset, strong family history, rapid progress of the contracture, involvement of soles of the feet).

Problems that can occur with surgery include difficulty with wound healing and small areas of skin loss where the diseased tissue has been removed and left a very thin area of skin. Blood clots (haematoma) can collect under the skin and on rare occasion these may become infected. Occasionally nerves or arteries can be injured as they may be trapped or tethered by the Dupuytren's tissue.

In most cases it is possible to completely straighten the "knuckle" or metacarpophalangeal joint. Full contracture of the smaller joints of the fingers is not usually possible, but the degree of contracture can be improved in most cases. This sometimes requires more extensive surgery to release the joint. One of the main risks of surgery is stiffness of the fingers and loss of the ability to make a full fist. This is more likely to occur in women who do not respond to surgery as well as men. Many months of therapy and splinting may be required in such cases.