

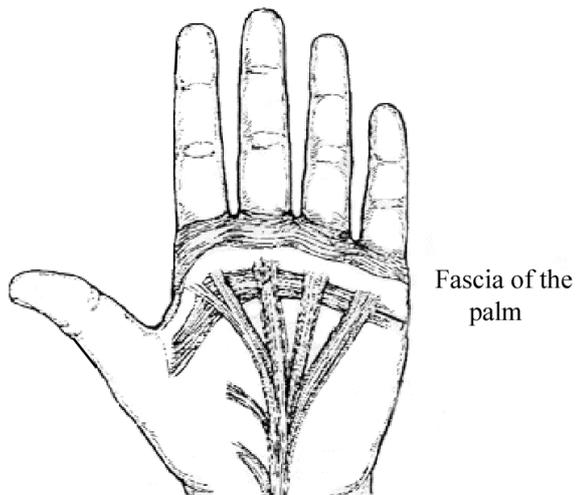
DUPUYTREN'S CONTRACTURE

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WHAT IS DUPUYTREN'S CONTRACTURE?

Dupuytren's contracture is a fibroproliferative disease of the palmar fascia. Baron Guillaume Dupuytren, a French surgeon, described it in 1831.

In Dupuytren's contracture, the normal fascia (fibrous tissue) becomes thickened with shortening of the normal fibrous bands in the hand and fingers causing a flexion contracture of the fingers. It most often affects the ring and small fingers. It occurs in people of Germanic and Celtic (northern European) ancestry. The average age of onset is 60 years but it may occur in younger people. It is more common in men.



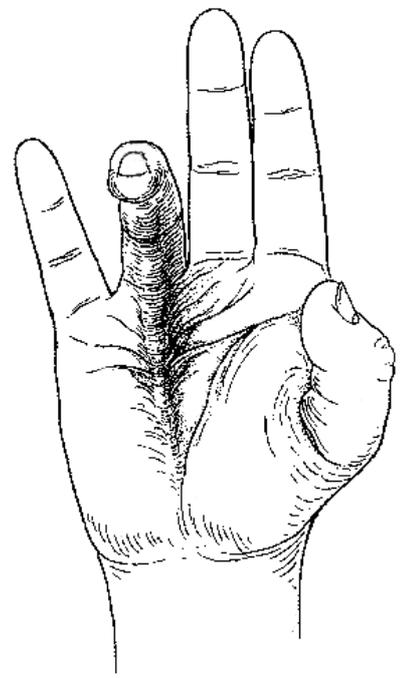
WHAT CAUSES DUPUYTREN'S CONTRACTURE?

It is a genetic disease with several genes having recently been identified as causing Dupuytren's contracture. Other factors that may increase the possibility of developing the condition include: diabetes, smoking, use of some anti-epileptic medications, high alcohol intake, high cholesterol and trauma/injury. None of these have been proven to cause the Dupuytren's contracture but may promote it in genetically susceptible individuals. There is no known method of prevention. It is not caused by manual work.

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.



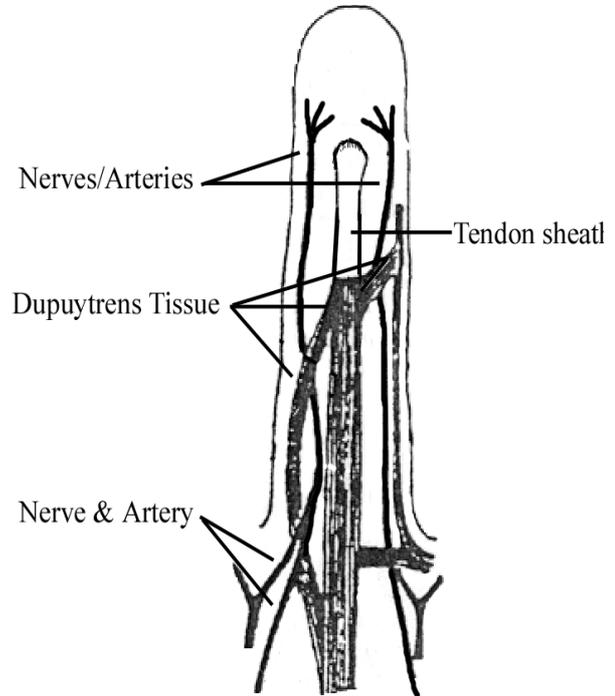
The ring and small fingers are most often affected. Often the skin over the knuckle of the middle joint of the fingers forms thickened nodules called "Garrod's knuckle pads". On rare occasions it may affect the soles of the feet with thickened painless nodules called "Lederhosen's Disease". In less than 1% of men who have the problem it may affect the penis with a contracture called "Peyronie's Disease", 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 (Hueston's table top test). It is not recommended that nodules without a contracture be removed because surgery can stimulate the formation of contractures.

PERCUTANEOUS NEEDLE APONEUROTOMY (PNA)

In contractures affecting only the first knuckle (metacarpophalangeal joint) a minor procedure under local anaesthetic can be performed in the office to correct the contracture. Following the procedure the hand must be kept dry for 48hrs, and a splint worn at night and stretching exercises performed for approximately 8 weeks. In elderly patients this may be the only treatment required, but in younger patients it is expected that the disease will slowly progress and surgery may eventually be required.

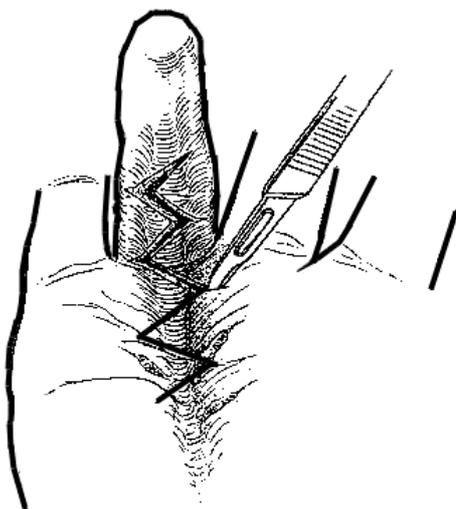


XIAFLEX/COLLAGENASE

This is an enzyme that can be injected into the Dupuytren's tissue to dissolve small areas, as an alternative to PNA (above). It is now approved for use in Australia but has been used in the USA & Europe for several years. Again, this is a temporary treatment in younger patients and recurrence of the contracture is to be expected in 2-5 years usually. It does have some risks, being an injectable medication and is expensive. Further information is available via this link [XIAFLEX Patient Brochure](#)

FASCIECTOMY SURGERY (Removal of the diseased fascia)

In many patients surgery is required. This is usually a day surgery procedure under general anaesthetic, and involves removing the diseased tissue from the hand with multiple zig-zag incisions. 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 before discharge from the hospital day surgery unit. Therapy is commenced 2-3 days after surgery to prevent the fingers from becoming stiff. The sutures are removed 10-14 days after surgery. A splint may be worn for several weeks between exercises and at night for 8-12 weeks to maximise the correction of the finger deformities.



FASCIECTOMY & FULL-THICKNESS SKIN GRAFTING

In severe Dupuytren's disease, particularly early onset contractures 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. The skin graft is taken from the groin area and the skin closed with dissolving sutures and a waterproof dressing. Very rarely 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 (McCash technique). This will be dressed and washed in a small spa bath twice weekly and usually takes 4 weeks to completely heal. If either skin grafts or the open palm technique are likely to be needed, the surgeon will discuss this 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, presence of Garrod's knuckle pads).

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. This is rare in first time surgery but more likely in revision surgery due to extensive scar tissue.

In most cases it is possible to completely straighten the "knuckle" or metacarpophalangeal joint. Full correction of the contracture of the smaller joints of the fingers is not always possible, but the degree of contracture can be improved in most cases with an expected result of proximal interphalangeal joint contracture of about 40°. 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.

CARPAL TUNNEL SYNDROME & DUPUYTREN'S SURGERY

There is a risk of developing carpal tunnel syndrome (pressure on the nerve travelling through the wrist with symptoms of pain, numbness & weakness of the hand) following major surgery to the hand such as Dupuytren's release. If you have any symptoms or signs of this condition, your surgeon may recommend a nerve study and carpal tunnel release surgery prior to your Dupuytren's operation. It has been shown that performing carpal tunnel release surgery at the same time as Dupuytren's contracture surgery can lead to a much poorer result. You may need to recover for 3-4 months after carpal tunnel release before having your contracture treated.