

Dupuytren's disease

Hand Surgery Patient Information Leaflet

What is Dupuytren's disease?

Dupuytren's disease is a condition that affects the connective tissue in the palms of your hands (known medically as palmar and digital fascia). It is a progressive disease which means that the symptoms tend to increase over time.

What are the symptoms?

It can first appear as small lumps under the skin in the palm of the hand which are non-cancerous (these are known as Dupuytren's nodules). The lumps contain collagen which is a natural protein found in the body. Collagen builds up under the skin forming string-like cords which extend from the palm into the fingers. These can be felt or seen under the skin when you stretch out your finger.

Over time, this cord may tighten and pull your finger in towards the palm of your hand. This is known as Dupuytren's contracture and makes it very difficult to straighten your finger fully. Although this is not usually painful, it can cause problems with carrying out normal activities.

The ring finger and little finger are most commonly affected but Dupuytren's contracture may develop in more than one finger and in both hands. Collagen nodules can also appear in soles of feet (Ledderhose's disease) or back of the fingers (Garrod's pads).

Who is affected?

Family history is one of the most important factors in determining who will get the disease as 80 per cent of people who develop it have a family history of it.

It is more common in men and tends to be more severe in men. It is generally seen in people who are of northern European descent. In addition to these inherited factors, studies have found that people with certain conditions may be more likely to develop Dupuytren's disease. These conditions are:

- Diabetes
- Epilepsy
- HIV infection
- Previously had a heart attack
- Previously had a hand injury

Research has also shown that Dupuytren's disease may be more common in people who smoke cigarettes and drink a lot of alcohol.

What causes it?

The exact cause of the disease is not yet understood and research is still looking into this. A cell called a myofibroblast is the main cell involved in the development of the disease. In people with Dupuytren's disease, these myofibroblast cells produce abnormal amounts of collagen which causes the problems.

How can it be treated?

At the moment there is no cure for Dupuytren's disease but your finger can be straightened. Your consultant will discuss the various treatment options with you and you can decide which of these you prefer.

The aim of the treatment is to allow your hand to work normally again and try to limit the disease from progressing. However, whatever treatment option you choose, it is possible that the symptoms may come back and need more treatment.

The treatment options include both surgical and non-surgical treatments.

If you have a mild version of the disease and do not have a contracture, your consultant may recommend that you do not need any treatment. They will continue to monitor your condition instead. This is because even if you have treatment, there is no guarantee that this will prevent the disease from progressing any further.

Surgical treatments

Fasciotomy

This involves dividing the cord through a cut in the skin or with a needle puncture through the skin.

Percutaneous needle fasciotomy

For this type of fasciotomy, a special needle is passed through the skin of the palm into the cord. A cut is made into the cord using a see-saw movement to divide it and the finger is stretched to straighten it.

The procedure is usually carried out in the outpatient clinic. You will be given a local anaesthetic. Afterwards, a light dressing will be applied. You will be advised to keep your hand elevated (raised above the level of your heart) and to move the finger that has been treated.

You will need hand therapy to help your hand recover its normal functions.

Fasciectomy

For this procedure, the whole cord or part of it (limited fasciectomy) is removed rather than just divided. The skin wound is then stitched up and dressed.

The treatment may be carried out using a local or a general anaesthetic, depending on what you are having done. You should only need to be in hospital for the day but occasionally an overnight stay may be necessary.

You will need to return for removal of stitches, dressings and a check-up for a few weeks after surgery. You will need hand therapy to help your hand recover its normal functions.

Non-surgical treatments

Collagenase injection

This procedure uses enzymes (called collagenases) which are injected into the cord. These enzymes dissolve the cord.

The day after the injection, you have a procedure to break the cord and straighten your finger. This is carried out by a doctor and you will be given a local anaesthetic for this as it can be painful. After stretching the finger, you will be given a splint to wear for five days while you are resting.

Occasionally, depending on the size of the cord or the number of joints involved, the cord needs to have more injections of enzymes before it dissolves. These will be given four weeks apart.

This treatment is carried out as an outpatient procedure and so there is no need for you to stay in hospital.

Radiation therapy

This therapy can be used in the early stages of the disease and although it is not guaranteed to work, long term studies have shown that it can slow down or stop the disease.

For the treatment, you put your hand under an X-ray or electron beam machine and then radiation is applied to the collagen lump on the palm of your hand. The treatment is repeated several days running. This is only usually offered to a few patients who have a type of Dupuytren's disease where the symptoms get worse quickly and keep coming back.

Hand therapy

Please note that after both surgical and non-surgical treatments, you will need to attend appointments for hand therapy until your hand function is normal again.

At your first hand therapy appointment you will be given a splint to wear on your finger at bedtime. You will need to use this for up to four months. You will also be given some finger exercises to do each day.

When will I be treated?

Treatment under the NHS is available under strict guidelines. It will depend on how much your finger is bending in towards your palm and particularly if the function of your hand is affected. It is important not to wait too long before starting treatment as if fingers have been bent for years, it can be more difficult to straighten them.

Will stretching help the disease?

Once you have been treated, you will need to do finger exercises if you are given these by your hand therapist.

Does Dupuytren's disease affect other parts of the body?

It usually only affects the hands. However, less commonly, the toes and soles of the feet can be affected by a similar condition called Ledderhose's disease. Even rarer conditions include Garrod's knuckle pads which affects the knuckles and Peyronie's disease, affecting the penis.

Can I find out more?

You can find out more from the following website:

The British Dupuytren's Society

<http://www.dupuytren-society.org.uk/>

References

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If you have any questions, or if there is anything you do not understand about this leaflet, please contact:

Plastic surgery specialist nurses on 01384 456111 ext. 4547
(9am to 5pm, Monday to Friday)

Russells Hall Hospital switchboard number: 01384 456111

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