



MSK self-management workbook

Dupuytren's disease and trigger finger/thumb

Are your fingers or thumbs not moving freely?

July 2020

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Disclaimer

This workbook provides general advice which may not be specific to you. It is important that if you are in pain you see a health care professional for an assessment to rule out serious, albeit rare, pathology. Please talk to a health care provider if you have not seen one before. You can use this workbook on your own, however, we recommend that you do so alongside a health professional.

Health and safety

This workbook is designed to help you manage your condition. It is recommended that the workbook is used alongside advice from a health professional. Together you can work to help with your recovery.

You may progress more rapidly or slowly through this workbook depending on your symptoms and other factors related to your condition.

It is important that if you are experiencing significant pain during the activities in this workbook then you should discuss your symptoms with a health professional.

Purpose of workbook

This workbook provides a general overview of the management of your condition. The workbook is split into different sections with the main focus being education, self-management advice and exercise. We recommend reading all the sections over time, however, you may find that not all of this information is relevant to you.

The exercise section gives you a choice of exercises, varying in difficulty. Begin with the level you feel is appropriate, based on your pain and confidence. You then have the option over time to make these exercises more challenging or reduce to a more basic level as required.

The self-management section provides education on other management options that can be used in conjunction with exercise to improve your condition.

Finally, the workbook also includes a range of additional resources available that may be of benefit, such as leaflets, videos and contact details for other services.

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Introduction to the palm of the hand

The palm of hand has a layer of very thin tissue which sits just beneath the skin called the **palmar aponeurosis** or **palmar fascia**. The fascia's job is to give stability to the overlying skin and also to protect the underlying tendons.

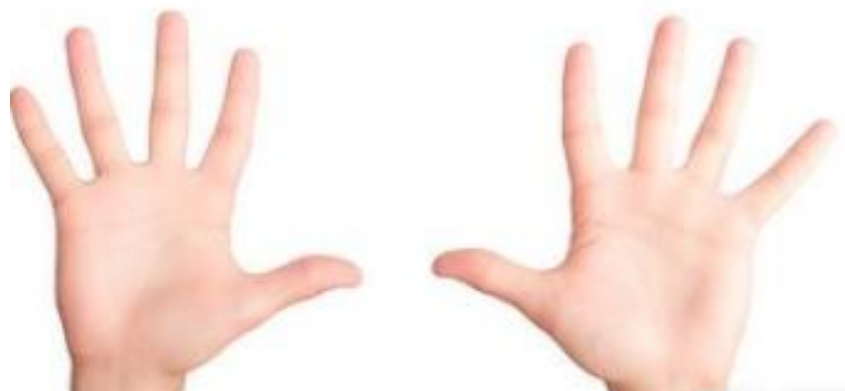
The tendons which run along the palm and then into the fingers have a roof or covering called the **A1 pulley**. The A1 pulley is located at the 'bony prominence' in your palm just before the fingers or thumb starts. The job of the A1 pulley is to keep the tendon in place as it moves (glides and slides) up and down the palm to prevent it 'bow stringing'.

Both the palmar fascia and the A1 pulley do their jobs very well and are working all day without you even knowing!

Like most things from time to time, problems can develop. When problems with the palmar fascia or A1 pulley develop you may start to experience symptoms. These can range from mild thickenings felt in the tissue which were not there before but do not give you much in the way of bother, to problems with the movement and position of the finger or thumb.

Sometimes people confuse the two conditions but in reality they are really quite different.

This workbook will provide you with information about the two conditions. If you already know for sure which one you have go straight to the information for that condition. If you are unsure of which condition you have, read the information on both which may help with your diagnosis.



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Dupuytren's disease

So what exactly is Dupuytren's disease?



Dupuytren's disease (also referred to as Dupuytren's contracture) is a common condition that usually arises in middle age or later. It is more common in men than women.

In the palm there is a layer of thin tissue called the palmar fascia. In Dupuytren's disease there is a shortening and thickening of the palmar fascia. Firm nodules appear in the palm and in some cases this can progress which leads to the affected finger(s) bending towards the palm. It may then become difficult or impossible to straighten the finger completely.

What causes Dupuytren's disease?

Although the cause of Dupuytren's disease is unknown it can often run in families but this is not always the case. It is common in Northern Europe and in populations with Viking descent and tends to affect more men than women, although women can develop the condition too.

Dupuytren's disease is also associated with:

- Diabetes
- Smoking
- High alcohol consumption
- Previous hand or wrist injury
- Previous hand or wrist surgery

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Many people affected have none of the above. Contrary to popular belief it does not appear to be associated with manual work.

Dupuytren's disease myths and facts

Myth Dupuytren's Disease is a painful condition.

Fact Discomfort/mild pain may be present in the early/active stages but nearly always this improves/goes away with time.

Myth I need an operation.

Fact Not everyone will need an operation. Many people with mild Dupuytren's disease continue to manage all of their everyday living activities with little/no problem. It is only when these activities become a real problem or the finger(s) is bent towards the palm in a troublesome manner that surgery is considered.

Myth Steroid injections help/stop Dupuytren's.

Fact Steroid injection **are not** useful or beneficial in Dupuytren's disease.

Myth I can stop my Dupuytren's from becoming worse.

Fact You cannot stop or prevent Dupuytren's disease. It is a disease that does its own thing. There are some factors such as smoking and high alcohol consumption which can make your Dupuytren's disease worse so making lifestyle changes can be helpful.

Do you think you may have Dupuytren's disease?

If yes, read on to learn more about what can be done and if something should be done?

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What are the treatment options?

Option one - conservative management/do nothing (yes nothing is an option!)

If the condition is not particularly bothersome, it is quite safe to leave things as they are. Many people have fairly stable disease that does not change much over the years, and never seek help with the condition.

Option two – surgery

Surgery can usually make bent fingers straighter, though not always fully straight; it cannot eradicate the condition as there is no cure. Surgery is not needed if the finger can be fully straightened. Surgery is only considered **if**:

- It has become impossible to put the hand flat on a table.
- There is a contracture that is interfering with the function of your hand.
- Your condition is progressing in a relatively quick manner.
- There is recurrence of the condition that is interfering with hand function.

The surgeon can advise on the type of operation that is best suited and on its timing. Procedures may be carried out under local anaesthetic or general anaesthetic

Surgical options are:

Fasciotomy

The contracted cord of Dupuytren's disease is simply cut in the palm, in the finger or in both, using a small knife or a needle.

Segmental fasciectomy

Short segments of the cord are removed through one or more small incisions.

Regional fasciectomy

Through a single longer incision, the entire cord is removed.

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Dermofasciectomy

The cord is removed together with the overlying skin and the skin is replaced with a graft that is usually taken from the upper arm. This procedure is usually undertaken for recurrent disease, or for extensive disease in a younger individual and helps to prevent recurrence.

What happens after surgery?

After surgery your hand may be fitted with a splint. This is to help maintain the corrected position of the finger(s). It is worn overnight and it is often recommended that this be worn for up to three months after surgery.

Hand therapy is important in helping to facilitate wound/scar healing and in recovering range of movement and function in the hand, especially for more extensive surgery and skin grafts. The recovery is variable with regard to wound healing, the degree of improvement achieved and the time to achieve the final position.

The final outcome is dependent on many factors including the extent and behaviour of the disease itself and the type of surgery required. The outcome is never guaranteed.

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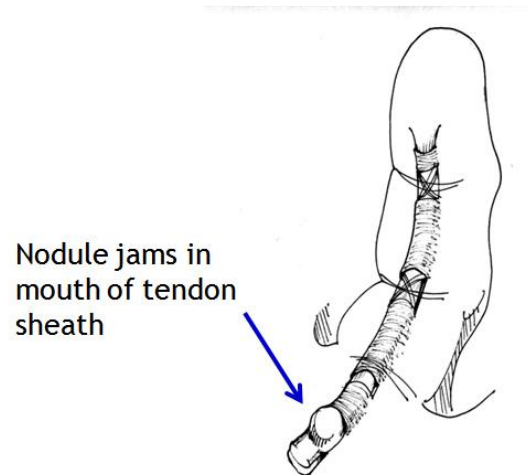
Trigger finger/thumb

What is it?

Trigger finger is a painful condition in which a finger or thumb clicks or locks as it is bent towards the palm.

What is the cause?

Thickening of the mouth of a tendon tunnel leads to roughness of the tendon surface, and the tendon then catches in the tunnel mouth. People with insulin-dependent diabetes are especially prone to triggering, but most trigger digits occur in people without diabetes. Triggering occasionally appears to start after an injury such as a knock on the hand. There is little evidence that it is caused by work activities, but the pain can certainly be aggravated by hand use at work, at home, in the garden or when participating in sport. Triggering is sometimes due to tendon nodules in people known to have rheumatoid arthritis. It is not caused by osteoarthritis.



What are the symptoms?

- Pain at the site of triggering in the palm (fingers) or on the palm surface of the thumb at the middle joint, usually in a person over the age of 40.
- Tenderness if you press on the site of pain.
- Clicking of the digit during movement, or locking in a bent position, often worse on waking in the morning. The digit may need to be straightened with pressure from the opposite hand.
- Stiffness, especially in trigger thumb where movement at the end joint is reduced.

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Trigger finger/thumb – myths versus facts

Myth Everyone with Trigger finger needs an operation.

Fact The majority of Trigger finger/ thumb respond well to a steroid injection and most do not require surgery.

Do you think you may have trigger finger or thumb?

If yes, read on to learn what you can do to potentially help.

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What is the treatment?

Trigger finger and trigger thumb are not harmful, but can be a really painful nuisance. Some mild cases recover over a few weeks without treatment. The options for treatment are:

- Avoiding activities that cause pain, if possible.
- Using a small splint to hold the finger or thumb straight at night. A splint can be fitted by a hand therapist, but even a lollipop stick held on with tape can be used as a temporary splint. Holding the finger straight at night keeps the roughened segment of tendon in the tunnel and makes it smoother. See the diagram below in the splint section.
- Steroid injection relieves the pain and triggering in about 70% of cases, but the success rate is lower in people with diabetes. The risks of injection are small, but it very occasionally causes some thinning or colour change in the skin at the site of injection. There is also a small risk of infection causing swelling, redness and pain. Improvement may occur within a few days of injection, but may take several weeks. A second injection is sometimes helpful, but surgery may be needed if triggering persists.
- Surgery is considered when triggering does not resolve with steroid injections. The operation is usually done under local anaesthetic as a day case. The operation involves releasing of the tendon tunnel.

Splints for Trigger finger/thumb

As described in the previous section sometimes keeping the finger in a straight position during the night can allow any irritation or thickening which sits in and around the covering of the tendon to settle. You may have worked out yourself that keeping your hand flat under the pillow is helpful.

A home-made splint using a lollipop stick held on with tape can be effective. There are also some simple splints available online like the one below. Unfortunately these are not something that are routinely issued by your family doctor (GP). We are not saying that you should rush out and buy this, we are simply giving you options of things which can be very helpful.

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If you have read all of the information above and you think that surgery might be an option for you then you would require a referral to the hand clinic at the hospital.

It is probably also useful to know some general information regarding having an operation on your hand. We will tell you a little bit more about this now.

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General information on having an operation on your hand

As previously stated, not all people with hand problems will require an operation. In **some** cases surgery may be discussed and considered and the majority of routine operations are successful, however, it is not the best option for everyone. The following information provides a rough guide to some of the issues that can occur following surgery. It is important that these are taken into consideration before surgery to the wrist and hand is performed.

Wounds

After hand/wrist surgery, all wounds must be kept clean, dry and covered for seven to 12 days. This allows normal wound healing to start and reduces the risk of infection. Once the stitches are removed the wound can be cleaned and left open to the air. You are advised not to soak the wound for two weeks after surgery. During the healing process the wound is tender and often itchy which is completely normal. The wound normally takes a few weeks to heal but it often takes around six to 12 months for scar tissue to settle.

When you have an operation, nerves on the skin surface are always divided in the wound. This can make the skin surface feel numb around the wound which can be permanent. It is very unusual for this to give any major problems, but you should be careful when handling hot or cold objects.

Scar formation

Scar tissue will form as an important part of the healing process. This is the body's normal reaction to injury or surgery. Scar tissue can sometimes become thick and lumpy and stick to underlying structures and restrict movement. It may also be sensitive to touch. This is normal following surgery and in most cases will settle within two to three months of the operation. Rarely, long-term tenderness is an issue although hypertrophic scar formation can occur. This is a condition in which the scar increases in width and feels lumpy. It can give rise to a cosmetic issue but is not serious. It is very important to start scar management once the wound area has fully healed.

You can also help your scar to heal by eating a balanced diet, especially food rich in vitamins such as milk, yoghurt and green leafy vegetables. Also try and drink lots of water each day unless you have been told not to. Smoking is not advised as it slows down the healing process. Scar tissue can also burn easily so you should stay out of direct sunlight or use total sun block where this cannot be avoided. Massaging your

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scar regularly each day using a non-perfumed moisturiser will help to soften and reduce scar tissue and improve sensitivity.

Hand swelling/stiffness

Following surgery swelling is common in the area operated on. Keeping your hand elevated following surgery can help to reduce swelling. It is important to move the hand early and often following hand surgery to avoid stiffness developing in the fingers and wrist. Exercise is also important as it can prevent the scar tissue from tightening and adhering to underlying structures.

Infection

Developing a wound infection occurs in around one in 100 patients following an operation. It is vital that you are aware of the signs of infection following your surgery which includes **increased pain and swelling, heat, increased odour, and redness which spreads and tracks up the hand**. More severe cases may require antibiotic treatment and occasionally a further operation to clean out the wound but this is very unusual.

Nerve and blood vessels injury

There is a risk of nerve or blood vessel injury when operating on the arm and hand. There are very small nerves in the skin that can be damaged resulting in some altered sensation at the site of the surgical incision. This altered sensation tends to improve over time. Damage to large nerves is rare but may occur if the nerve is stretched or bruised. This can result in altered sensation and occasionally weakness that is usually temporary. Blood vessels can be damaged during surgery however most bleeding stops during surgery or resolves shortly after.

Complex Regional Pain Syndrome (CRPS)

CRPS is a rare but very serious complication following surgery to the hand or arm, affecting one in every 2000 patients. It causes pain, increased sensitivity, swelling and stiffness in the hand which can often take up to two years to improve.

MSK Wrist and Hand **Working after an operation**

Time off work may be required following surgery, depending on the nature of your job. There are no hard rules about this. As a guide, patients with heavy manual jobs may need four to six weeks off work, whereas patients with office based jobs often return to work within a few days.

Driving

You should not drive after hand surgery until you are fit to do so. It takes time to recover from the effects of the anaesthetic and some painkilling medication prescribed after surgery may affect your fitness to drive. It is advised that you do not drive whilst you have stitches in place. It is your responsibility to ensure that you are in full control of the vehicle. There is detailed information on the DVLA website about fitness to drive and you should refer to that before driving. If you are in any doubt, consult your surgeon or GP as well as your insurance company. Different motor insurers have different policies about medical fitness to drive and you should check that you are fully insured before driving.

All adapted from Fife virtual hand clinic information



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The websites below are useful for further information

NHS Ayrshire & Arran MSK

<https://www.nhsaaa.net/musculoskeletal-service-msk/>

NHS Ayrshire & Arran Pain management

<https://www.nhsaaa.net/pain-management-service/>

MSK Reform

mskr.info (Type directly into browser with no “www.”

If requested code is MSKR19

The British Society of Surgery of the Hand

<https://www.bssh.ac.uk>

Versus Arthritis

www.versusarthritis.org

Quit your Way (Smoking advice and support) Tel: 0800 783 9132

<https://www.nhsaaa.net/better-health/topics/smoking/>

NHS Ayrshire & Arran Mental Health and Well being

<https://www.nhsaaa.net/better-health/topics/mental-health-and-wellbeing/>

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Section eight

- Multi language section included

Section nine

- Acknowledgements
 - NHS Ayrshire & Arran Ayrshire MSK Website