



MSK self-management workbook

Osteoarthritis (oa) of the wrist, hand and thumb

DeQuervain's Tenosynovitis

July 2020



Disclaimer

This workbook provides general advice which may not be specific to you. It is important that if you are in pain that 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. This workbook can be used 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 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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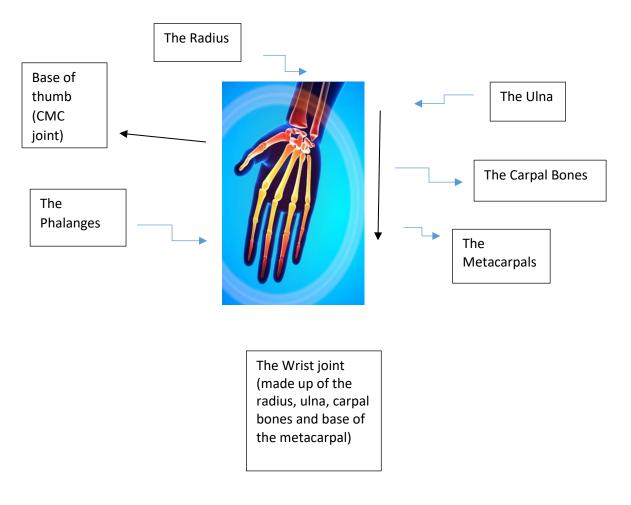
Introduction to the wrist, hand and thumb

The wrist is a complex joint that bridges the hand with the forearm. It is made up of a collection of bones: two long bones called the radius and the ulna, eight carpal bones and the base of the metacarpal bones. Below the metacarpal bones are the phalange bones, of which there are 19 in total.

As well as the bones in your wrists there are also many muscles, tendons, ligaments and nerves that help you move your hand and wrist and give it stability and feeling.

Some problems with the wrist and hand occur due to injury. Other problems occur as a result of the normal ageing process, or "wear and tear".

Wear and tear can occur in soft tissue and joints; the wrist joint, the joint at the base of the thumb, the small joints of the hand and fingers and even in the tendons in the hand. Wear and tear is normal and can be considered as the 'grey hair' of joints and tendons. Whilst your joints may have wear and tear, this does not necessarily mean you will have pain. However, when pain is an issue it can make day to day activities more difficult.





How to use this workbook

You have been asked to look through this workbook because you have symptoms which could be due to Osteoarthritis (OA) or DeQuervains tenosynovitis.

If your health care professional thinks you may have Osteoarthritis of the wrist, hand or thumb then please read the sections on **Osteoarthritis (OA)**.

DeQuervains tenosynovitis is another condition which can give pain in and around the thumb. Some of the advice and management given for this is similar to that for OA, therefore, it has been included in this booklet. Please read the appropriate section if your health care professional has given you this diagnosis.

Additionally, this booklet provides information to promote a better understanding of pain in general; a variety of exercises to manage your condition; advice for hand posture and positioning; information on activity modification and general management advice and looking after splints that you may have been given, advised to buy or already have.

The ultimate aim is to give you as much advice and help as possible to help you improve and manage your symptoms.

Please look at the table of contents and use this when working through the book.



Understanding pain

Before getting into the specifics of painful wrist and hand conditions, it is important to gain an understanding of how pain works in general. A good understanding of pain has been shown to improve people's ability to manage their symptoms more effectively.

How is this relevant to you?

It is important to note that pain does not necessarily mean harm. We can experience pain as a result of tissue damage, however, it's also possible to feel no pain at all, even with damage to our body. Similarly, we can experience significant amounts of pain with no damage to our bodies.

We know that pain is far more complex than solely what is going on in our bodies and can be influenced by other areas of your life. These include:

- Mood and emotions
- Beliefs about pain
- Avoidance of meaningful activities/social contact.
- Lifestyle choices

This is often referred to as "The Bio - Psycho - Social model of pain" which means that all areas of your life can influence pain. It is important therefore to look at your life as a whole when dealing with hand or wrist pain/dysfunction to identify potential contributing factors.

Further information can be found on understanding pain on the link below:

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

The following pages provide information and detail about the specific OA and tendon conditions which can affect the hand and wrist. These are designed to support you with exercise and help you care for your wrist and hand. We hope you find it useful.



What is Osteoarthritis of the hand and thumb?

The term 'arthritis' is used to describe pain and swelling in a joint(s). There are many different types of arthritis, osteoarthritis being the most common; it is also known as 'wear and tear' arthritis as a result of the normal ageing process. Osteoarthritis can also be genetic or occur as a result of injury to a joint; this is known as 'secondary osteoarthritis'.

The following section will give you information on OA of the hand. The section after that focuses on OA of the base of thumb.

Osteoarthritis of the wrist, hand and thumb

Normal joints are constantly undergoing repair due to the daily wear and tear that is placed on them. In osteoarthritis this process does not seem to occur correctly and changes occur. The cartilage that covers the end of the bone becomes damaged and bony growths can form around the joint edges. These are called osteophytes and the tissues surrounding the joint can become inflamed which may lead to stiffness (See diagram one).



Diagram one: Changes that occur in the hand with osteoarthritis.

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Why does it occur?

It isn't always clear but there are a number of factors that can play a role in developing OA of the hand, wrist and/or thumb, including:

- Age: OA is more common with increasing age. This is due to the natural wear and tear process and a reduction in the body's ability to repair as you get older.
- **Genetics**: There is thought to be a link to inheriting OA.
- **Gender:** Women are more likely to develop OA than men.
- **Previous injury:** If you have had previous trauma or injury to your wrist thumb or a small joint in your hand this may contribute to OA.
- Care of the joint: Without periods of rest or looking after your joint(s) this can contribute to a flare up of your pain.

What is the natural history?

The term natural history is used to describe what happens when nature runs its own course. With osteoarthritis in the hand, it is often possible to see what is likely to happen with time by looking at the hands of parents, since this is often a hereditary condition. Most people will find that although their parents may have quite stiff and misshapen hands, their hands still work fairly normally and there is not much that they are unable to do because of the arthritis.

The majority of people develop osteoarthritic changes with time. For most the condition is not painful, although individual joints can occasionally become sore. This is as a result of inflammation of the joint which then produces pain. The inflamed and painful joint can last a few months to a few years, but usually 'burns out' with time. This 'burn out' means that the inflammation and pain eventually settles, although the joint is often quite stiff and sometimes deformed by this stage.

People who have a strong family history of osteoarthritis tend to report that single joints flare intermittently, and the process moves onto another joint when the arthritis burns out of one. Rarely, an individual can have a severe form of osteoarthritis, meaning that some, or all, of the joints flare at once. This usually runs in the family and the accompanying pain and inflammation can be severe. As the condition progresses the hands tend to become stiffer, which can result in difficulty when making a fist and fully straightening it back out.

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How is it diagnosed?

We usually diagnose Osteoarthritis of the hand by your age, history and the symptoms you describe. A clinical examination of your hand(s) is also helpful as sometimes Heberden's and Bouchard nodes can be seen. These are bony lumps arising from the interphalangeal joints (small joints in your fingers); see figure one. The metacarpo-phalangeal joints (your large knuckles) are often spared. An x-ray will usually confirm the diagnosis however, if there is a possibility it may be a different form of arthritis, other than Osteoarthritis, then a blood test may be recommended.



What are the symptoms of Osteoarthritis of the wrist, hand and/or thumb?

The symptoms can include:

- Pain or discomfort.
- Stiffness or loss of movement.
- Weakness in your ability to grip or hold objects and difficulty performing finer tasks like buttons and zips.
- The joints can become swollen or misshapen and the knuckles can appear thicker.

Sometimes people can have no symptoms of this condition for a long time although X-rays can show changes. The opposite can also be true, with an individual having minor changes on an X-ray but severe symptoms.



Myths v facts

OA of the wrist and hand

Myth If my hands are painful now, will they be much worse unless something is done now?

Fact Although slow deterioration usually occurs with Osteoarthritis, generally speaking pain 'burns out' with time, and the chances of symptoms being much worse in a year or two are slim.

Myth If it is painful to use my hands, I will do more harm by continuing to use them.

Fact Actually, there is no harm in using arthritic hands as normally as possible. Normal use of the hand does not cause the condition to worsen. Ageing and genetics are responsible for the rate of deterioration.

OA of the base of thumb

Myth My pain will only get worse with time.

Fact A diagnosis of OA of the thumb does not mean that it will continue to get worse. Only 25% (one in four) of patients deteriorate with this condition, 25% (one in four) improve and the remainder stay about the same.

Myth Everyone with OA of the thumb needs an operation.

Fact Symptoms of OA of the thumb can settle on their own. Some cases require simple treatment or advice and then settle. If your symptoms do not settle with simple treatment or advice there are other treatments that are available however not everybody will require these treatments.



Another condition called **De Quervain's tenosynovitis/syndrome** can also give you pain in and around the thumb. If you have been told by a health care professional that you have De Quervain's, please read on. If you have thumb pain but are unsure whether your symptoms are due to De Quervain's or Osteoarthritis the following information may help the diagnosis. Don't worry if you unsure as most of the advice given is similar for both conditions.

De Quervain's Syndrome

What is it?

De Quervain's Syndrome is a painful condition that affects the tendons that run through a tunnel on the thumb side of the wrist.



What is the cause?

It appears without obvious cause in many cases. New mums of small babies seem particularly prone to it, but whether this is due to hormonal changes after pregnancy or due to lifting the baby repeatedly is not known. 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.



MSK Wrist and HandWhat are the symptoms?

- Pain on the thumb side of the wrist, as shown in the diagram. Pain is aggravated especially by lifting the thumb, for example when using scissors or giving a 'thumbs up'.
- Tenderness if you press on the site of pain.
- Swelling around the site of pain; compare it with same spot on the opposite wrist.
- Clicking or snapping of the tendons occurs occasionally.

De Quervain Syndrome myths versus facts

Myth I will need an operation to fix my problem.

Fact The majority of people respond well to a steroid injection and advice and most do not require surgery.

What is the treatment?

De Quervain's syndrome is not harmful, but it can be a very painful nuisance. Some mild cases recover over a few weeks without treatment.

Treatment options are:

- Avoiding activities that cause pain, if possible
- Using a wrist/thumb splint, which can often be obtained from a pharmacy, sports shop, a health care professional or online. It needs to immobilise the thumb as well as the wrist.
- A steroid injection relieves the pain in about 70% of cases. The risks of injection are small, but it very occasionally causes some thinning or colour change in the skin at the site of injection.







What Can I Do to Help my Wrist/Hand or Thumb Pain?

The good news is that a lot of hand and wrist problems can settle or improve with advice and exercise. It can take up to 12 weeks in some cases.

Try not to worry

It is only natural to feel worried. However, feelings such as worry, anxiety and fear, or negative expectations about treatment are barriers in preventing people recover and /or manage their problem.

Painkillers

A range of different medications are available to help reduce your pain to allow you to move more comfortably. Pain control can help your rehabilitation progress and does not just "mask" your pain.

If you are unsure of what medication you can take, speak with your local pharmacist, practice nurse or family doctor (GP) for guidance. Do not exceed the daily allowance of these medicines even if your pain is high and always consult a health professional prior to taking any new medication. It is important that if you are prescribed medication that you take them regularly and at the recommended dose (see medication packet for details). All medicines can cause side-effects, particularly if they are not used as prescribed. Side-effects range from common to uncommon and vary from person to person. Information on possible side-effects is available on the leaflet inside the packaging of your medication. It is important to speak to your local pharmacist, practice nurse or GP who may be able to change the dose or the medication itself to something that is more suitable.

Heat/ice

A hot water bottle or ice pack (such as a bag of ice cubes) can also be used regularly to help control pain in the early stages.

If using ice, wrap the ice pack in a damp towel and apply to the painful area for up to 10 minutes every two hours. Be careful to keep a close eye on your skin when using ice and if you experience any pain or significant discomfort remove it immediately.



If you are using heat, wrap the warm compress in a towel and place it on the painful area for up to 20 minutes every two hours.

If you have any concerns about the sensation or feeling on the skin where you are placing either ice or heat, ask a GP to assess this before following this advice.

If for any reason you feel there may be an infection in the area please seek advice from a local pharmacist or GP prior to carrying out this advice.

Corticosteroid injection

Steroid injections can provide pain relief for a **single** troublesome joint, by reducing the inflammation in the joint. Steroid injections are not given for osteoarthritis of the fingertip joints but are **sometimes** considered for the other finger joints and the base of thumb if appropriate. These injections carry a risk, they are **not** a cure and they do come with some side effects. For these reasons you may be advised to try alternative measures first with the aim of more lasting relief and to help protect your wrist and hand over a longer period.

Activity modification

Looking at what tasks cause pain in the day and considering how you could do these differently. Pacing the activities that cause pain by taking more regular breaks, or, resting from the task for a while (see activity modification and advice section).

Exercise

Gently exercising the joints through their full range of motion and maintaining the strength of the hands (see exercises for the hand, wrist and thumb section).

Splinting

Using a splint or support whilst performing activities that normally cause pain or using them at night if appropriate may help to reduce symptoms (see splints for the hand, wrist and thumb section).



MSK Wrist and Hand General health

Your mental, emotional and physical health and wellbeing is vital in your recovery. Many factors can impact on your wrist and hand pain; giving up smoking, losing weight, increasing your fitness, sleeping well and reducing stress can all aid in your recovery.

See the links in the website section for more information and support.



MSK Wrist and Hand What operations can help?

There are different types of operation which can produce pain relief in an arthritic joint:

Operations for wrist and hand OA

Joint replacement surgery for the fingers

Some of the knuckle joints can be replaced with a plastic hinge joint, which will remove pain from the arthritis but will also completely alter the way the hand works. Joint replacements tend to wear out within a few years in the hand and are often associated with loss of grip strength. Complications from joint replacements include infection, loosening or breakage of the joint, dislocation and other risks outlined in the 'General information on having an operation on your wrist or hand' section.

Joint fusion surgery

Fusion is the term used when the joint in removed and the bones on either side of the joint are pinned together so that they heal over with bone. This type of surgery is for pain relief only as you will lose all movement in the fused joint. Complications include infection, failure of the bone to fuse, and irritation from the pins holding the bones in place.

Operations for OA of the base of thumb

Trapeziectomy

The most common procedure is a trapeziectomy. This involves removing one of the bone that is most worn and causing pain. The outcome of this operation is not guaranteed, and you may require a four to six week period in a cast after the operation. It is also quite usual for pain to be felt for some time after the surgery. It can take a while for things to settle down and it can take several months for you to feel the full overall benefit of the procedure. Surgery like this is generally only considered after you have tried and tested all of the other 'simpler' measures outlined in the workbook which often help avoid the need for surgery.



MSK Wrist and HandOperations for De Quervain's Tenosynovitis

Decompression of the tendon tunnel

Via a small incision at the thumb side of the wrist and protecting the nerve branches just under the skin, the surgeon widens the tendon tunnel by slitting its roof. The tunnel roof forms again as the split heals, but it is wider and the tendons have sufficient room to move without pain. Pain relief is usually rapid although the scar may be sore and unsightly for several weeks. During the procedure the nerve branches are gently moved to see the tunnel, therefore, temporary numbness can occur on the back of the hand or thumb. As with all surgery there is a risk of stiffness in the joints involved and infection (less than one out of 100 cases).

The anaesthetic may be local (injected under the skin at the site of operation), regional (injected in the armpit to numb the entire arm) or a general anaesthetic (when you are put to sleep).

There are some more general things to consider or think about if you ever find yourself wondering about the possibility of surgery. We will now tell you some more about these.



General information on having an operation on your wrist or hand

As previously stated, not all people with hand and wrist 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 scar regularly each day using a non-perfumed moisturiser will helping 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.



MSK Wrist and Hand 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.

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. 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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MSK Wrist and HandSplints for OA of the wrist and hand

Wrist Splint for OA of the wrist





- Straps should be applied firmly, but not too tight.
- Wear liners under splint for hygiene/comfort.
- Your splint is to be worn for periods of rest or when doing activities to offer you support at the wrist.
- Do not wear the splint for longer than two hours without removing it to move your wrist. It is important you do not wear the splint too much otherwise your wrist may become stiff and weak.

Splints for thumb OA





A **thumb spica splint** can be useful to use during the day when support is needed and when you do activities with your hands. It can also be used for short periods of rest. This splint immoblises (holds still) the painful joint of your thumb and gives some wrist and thumb support.

Do not wear splint for longer than two hours at a time, as this may weaken your hand muscles.



Other alternative thumb OA splints

The 'push' brace is designed to support the base of your thumb in a good functional position. It is a 'doing things' splint. If you experience pain or reduced grip strength when you pinch, grasp or perform similar movements you may find this brace helpful. Unfortunately, this is not something that can be provided at the hospital or from your GP. We are **not** advising you to rush out and buy this, simply providing further information. Below are some links to websites about these braces should you wish to find out more.

https://www.promedics.co.uk/products/push-cmc https://www.performancehealth.co.uk/push-ortho-cmc-thumb-brace





Precautions and things you must be aware of when wearing or using a splint

Contact your health professional or discontinue use of any splints you have if you experience the following:

- Rubbing
- Increased pain
- Skin irritation
- Red marks lasting longer than 20 minutes
- Increased swelling
- An increase or new 'pins and needles'
- Colour changes to your skin

Care of Splint

Hand wash in cold soapy tap water: Remove metal/plastic bar prior to



washing. Rinse thoroughly and dry in shade. Splint liners may be washed more regularly in cold soapy tap water.

Joint Protection and Activity Modification

Some hand and wrist conditions such as arthritis of the wrist, hand and thumb are chronic conditions, which means there is no cure. Therefore, it is important to look after the joints in your hand. Joint protection does **not** mean that you should stop using your hands, but that you should do things differently.

Making small changes; The four P's

Small changes can make a big difference



 Change your hand position regularly so you are not holding something or doing something in the same position for a long time.

Try to reduce repetitive movements.

- Try to reduce joint strain by adapting lifting, pushing and twisting movements. Think about how you could do things differently and see if it makes a difference. Some examples are given in the diagrams on the following page.
- When doing DIY or gardening, grip handles less tightly.

- Analyse problems and identify possible causes. Identify a range of possible solutions and try these solutions to see what works best for you.
- Try using stronger larger joints for some activities, for example, hips to push open doors.
- Take more frequent breaks if possible.

- Be more active when you have less or no pain and try to avoid certain jobs when you have pain. Finding out more about your individual condition and how you can manage it will be beneficial. Please refer to the section dedicated to your condition earlier in the workbook. To learn more about pain in general please go to section (X).
- Stop to think if you could do something differently the next time experience pain.

Below are some examples of different ways of doing things which can protect your joints and may also make life easier.



Examples of joint protection techniques

Instead of this...

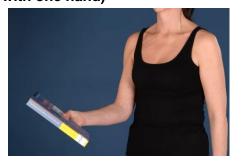
... try this



Instead of this (holding a book with one hand)



try this (holding it with two hands)



Hug large objects close to your body



'Shift not lift'. Slide a plastic jug of water to the kettle. Only use as much water as you need



Instead of lifting a large pot



Use a basket to save draining water







Assistive device

There are a variety of small aids that are available to assist you in maintaining your independence with completing daily activities.

For example:



Jar Twister:

to help you open tight jars.



Wide grip cutlery:

if you find it difficult or painful to hold cutlery.



Pen grips:

to support grip when writing





Plug pulls:

if you have difficulty removing plugs





Tap turner:

attach onto your taps to make them easier to turn on and off



MSK Wrist and Hand Goal setting

Before starting rehabilitation for your wrist and hand, it is important to consider setting some goals. Setting meaningful activity goals can help with motivation during rehabilitation as often the process of recovery can be slow.

Setting activity goals (alongside your exercise targets) and tracking your progress, allows you to see the improvements with your rehabilitation. If you are struggling to achieve these goals then you can make the necessary changes to your rehabilitation programme as required.

There are a few things worth considering when setting goals.

They key is to set goals that are:

- Realistic (considering your condition and your previous level of function)
- Enjoyable
- Specific (to your needs)
- Timed (setting a date or time scale you are working towards)

An example of a goal for hand/wrist pain is shown below:

'By the end of September, I would like to be feeling more positive about my base of thumb pain. I want to be able to know my limits and what to do to avoid/minimize the risk of a flare"

At set intervals (weekly/monthly) you can review this to check you are on track to meet your goals. If you continue to see no progress, speak with a health care professional to see if they can help you problem solve, allowing you to get back on track.

Further information can be found on goal setting by clicking the link below:

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



MSK Wrist and Hand Exercise

Some hand and wrist conditions respond well to exercise. No matter what the exercises are the key to success and getting the most out of your exercises is to:

Keep

- Build the exercises into your daily routine so you can do them regularly.
- Find time when you are not under pressure and can give the exercises your full attention.

Positive

 Try to do the exercises on six days each week with one day off. If you want to get better, you will need to do them on at least four days of the week.

!!!

- If one particular movement causes more pain, then use it each week to test if you are improving and getting better.
- Be patient!

You may find that these exercises slightly increase your symptoms initially, however, as time goes on they should become easier.

A rehabilitation programme starts with easier exercises that gradually become more difficult. The aim is to build your function back up to a stage where you can manage all of your activities of daily living more easily and with less pain... so don't give up too early!

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How much should I push my exercises?

Pain during your exercise

If you have been given exercises to do for your hand/wrist problem, you may find the following advice and guidance useful.

Aim to keep your pain under 5/10 during exercise. If your pain is over this, then you can modify the exercises by either; reducing the amount of movement during an exercise, the number of repetitions, reducing the weights, reducing your speed or increasing rest time between sets.

0= no pain 10=worst pain imaginable

| 0 to 3 | 4 to 5 | 6 to 10 |
|--------------|------------|-----------|
| Minimal Pain | Acceptable | Excessive |

Pain after exercise

Your pain or other symptoms should return to **your** pre exercise baseline within 30 minutes of exercising. You should not feel an increase in your pain or stiffness the next morning. Although, sometimes it is normal to feel some muscle soreness from doing exercise that you have not been used to.

General exercise

The recommended levels of physical activity for adults is 150 minutes of moderate intensity exercise every week (30 minutes, five days out of seven) as well as muscle strengthening activities on at least two days per week. Research has shown that general aerobic exercise can be an effective way of keeping us healthy by reducing the risk of developing diabetes, heart disease, cancers and mental health problems.

Managing daily activity

The longer we have pain, the harder it can be to stay active. Our activity levels and how we approach certain activities often change from day to day based on the level of pain we are experiencing.

You may find that on your good days, when your pain is manageable, you overdo certain activities making your pain worse. This can result in you having to recover for



the rest of the day, or in some cases, for days after. This is known as "over and under activity cycling" or "boom/bust cycling".

Over time this pattern may cause you to rest for longer periods, reducing your motivation to be active and resulting in avoidance of activity in general. Unfortunately, in most cases this will lead to a reduced strength, stamina and flexibility of the tissues in your hand.

This can often lead to more pain from your tissues having to then work harder when trying to be active.

Successful management of activity

Remaining active with pain can be achieved by following some key themes from the example shown below. Here, a patient with hand pain cooks and struggles with heavy pots of potatoes.

| Plan | Plan the activity in advance and consider what your capabilities are. |
|------------------|---|
| | Look at what options or equipment are available that could make the task easier, for example: |
| | Could you get help from a family member or friend to peel or chop the potatoes? |
| | Could you use a basket or sieve which holds the potatoes within the pot, meaning you only need to lift out the cooked potatoes rather than lifting the pot, potatoes and the water. |
| Prioritise | Consider what else you have to do in that day or week in order to reduce the overall load on your hands. Prioritise what's most important at this time. |
| Pace | Try to spread the activity out over the course of the day or week. Take small breaks on a regular basis and plan for these breaks before the onset of pain. |
| Adjust and adapt | Mange your expectations of yourself from what you can do now over what you did in the past and make adjustments around this. |



Further information can be found on managing activity by clicking the link below: https://www.nhsaaa.net/musculoskeletal-service-msk/

Flare-up management

It is normal for your pain levels to go up and down, even as you are getting better. These are called flare ups". It can be helpful to have a "flare up" plan in place to help you stay in control of your pain, and get you through these times.

By having a flare up plan in place, you are giving yourself the best chance of controlling your symptoms.

You may have noticed that certain situations or activities result in a flare up of your pain. For example, social activities/situations that create stress or feelings of low mood, or, simply being over active. Sometimes these issues cannot be avoided, however, by recognising what aggravates our symptoms, we can plan strategies to help manage them.

For example, if you have a large fence to paint and you would normally be able to do this in a day, plan ahead and split it into more manageable chunks.

Recognising changes in your pain, mood, and irritability may allow you to be aware of a flare up happening as well as situations which may cause this. Often patients tell us that they notice other signs first before an increase in their pain, such as feeling stressed or an awareness of tension across their shoulders and neck.

Flare up plan

By recognising the factors that aggravate your pain, you can plan in advance the tools and strategies to help you manage these. You may find it helpful to write these down.

Examples of strategies to help may include:

- Medication
- Managing activity (remember the fence example on the previous page)
- Short periods of rest
- Mediation/relaxation
- Ask for help (family, friends, work)

Further information can be found on self-management by clicking the link below:

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



Exercises for the wrist and hand

Keeping it mobile!

Exercise one

- Support your forearm on the edge of a chair or on a table. Make sure the wrist can move freely
- Lift your wrist up until you feel a gentle stretch. Hold for three to five seconds.
 Your fingers can be curled or straight. Repeat 10 times four to six times per week





Exercise two

 Tuck your elbows into your sides. You can be in sitting or standing. Start with your palms face down, hold this position for five seconds. Give your thumb a stretch out at the same time. Keeping your elbows tucked in by your side, turns the palms to face upwards. Hold for three to five seconds. Repeat this 10 times.





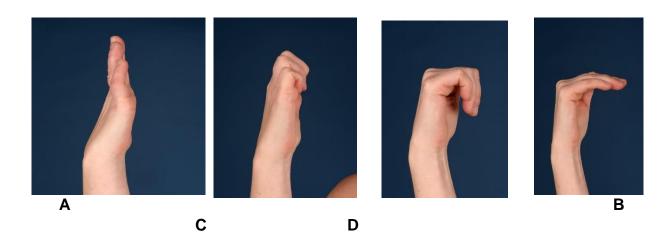


Keeping the fingers mobile!

Exercise one 'stretch out and hold'

- a. Stretch your hand out, hold for three to five seconds.
- b. Bring your fingers together. Then roll down your fingers, keeping the large knuckles straight, almost like a hook position. Feel the gentle stretch and hold for three to five seconds.
- c. Roll fingers down to a full fist and wrap your thumb across the top. Feel the stretch and hold for three to five seconds.
- d. Unroll your fingers, and make a Γ shape at your knuckles, knuckles bent at 90° and fingers held straight out.

Then go back to (a) above and repeat this sequence10 times.







Ε

Exercise two 'spread the fingers apart'

Place your hand as flat as you can on a table, open your fingers to spread them apart as much as possible. Repeat this 10 times



Exercise three 'strength for the fingers'

Hook a medium sized elastic band around your hand and thumb. Stretch the fingers and thumb apart. Hold for three to five seconds. Repeat 10 times.







Exercise for OA thumb

Strengthening of muscles at the base of the thumb

- Place your hand at the edge of a table with your affected thumb off of the edge.
- Keeping the hand flat lift the thumb level with the palm of the hand as shown.
- Repeat eight to15 times, three sets, four to six times per week.







2. Strengthening the muscle at the base of the thumb

- Place a band around your palm and the thumb below the knuckle in the thumb as shown
- Keeping your palm flat on the table take your thumb away from your palm as far as possible.
- Make sure the band does not move above the knuckle
- Repeat eight to 15 times, three sets, four to six times per week.



3. Strengthening the muscle at the base of the thumb

- Place your hand on the table as show in the first picture with fingers and thumb making a 'C' shape.
- Lift index figure up as shown. Lower slowly.
- Repeat eight to15 times, three sets, four to six times per week.





MSK Wrist and Hand Stretch of thumb web space

- Using your other hand take your thumb as far away from your palm as you can as shown.
- Hold for 20 seconds. Repeat five times per day.







MSK Wrist and HandUseful Links

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 for Surgery of the Hand

https://www.bssh.ac.uk

Versus Arthritis

www.versusarthritis.org

The Sleep Council

www.sleepcouncil.org.uk

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/





Section 8

• Multi language section included

Section 9

- Acknowledgements
 - o NHS Ayrshire & Arran Ayrshire MSK Website