

Elbow pain

This booklet provides information and answers to your questions about elbow pain.



What is elbow pain?



Elbow pain is a very common problem but it's not usually a sign of arthritis or any other underlying medical condition. In this booklet we'll explain what causes elbow pain and what you and your healthcare team can do to ease the problem.

At the back of this booklet you'll find a brief glossary of medical words - we've underlined these when they're first used in the booklet.

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At a glance

Elbow pain

Elbow problems are common but they're not usually caused by arthritis and they generally improve in a relatively short time and with simple treatments. In most cases you won't even need to see your doctor.

What can I do to help myself?

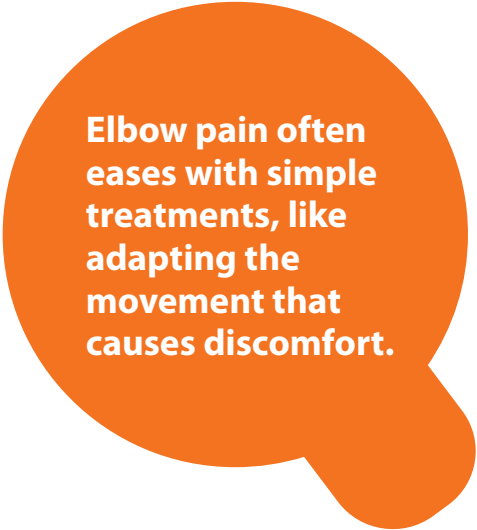
There are several ways you can help yourself, including:

- adapting your movements
- taking painkillers
- wearing splints
- using a heat/ice pack
- exercise.

When should I see my doctor?

You should see your doctor if:

- you have an infection in your elbow joint – symptoms may include severe pain that makes you unable to move your arm, swelling, fever, heat and redness
- you think you've fractured your elbow – you'll have pain, swelling and deformity which keeps getting worse if this is the case



Elbow pain often eases with simple treatments, like adapting the movement that causes discomfort.

- your pain doesn't improve with simple painkillers and you haven't had an injury or infection
- you have tingling, numbness or weakness in your arm or little finger.

How are elbow problems diagnosed?

Your doctor will usually examine your elbow and may sometimes request x-rays or blood tests. More rarely, your doctor may suggest a magnetic resonance imaging (MRI) scan or an ultrasound scan.

🗨️ What causes them?

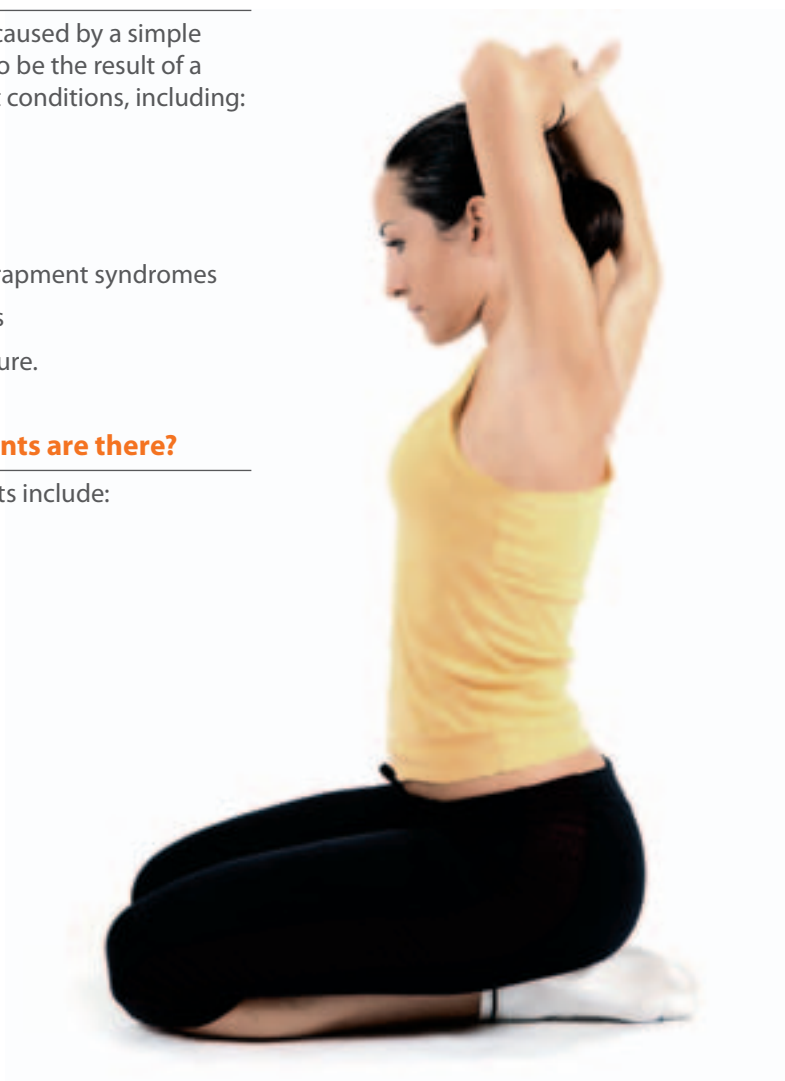
Elbow pain can be caused by a simple strain, but it can also be the result of a number of different conditions, including:

- tennis elbow
- golfer's elbow
- arthritis
- compression/entrapment syndromes
- olecranon bursitis
- distal biceps rupture.

🗨️ What treatments are there?

The usual treatments include:

- physiotherapy
- steroid injections
- surgery.



How does the elbow work?

The elbow joint is the site where the long bone at the top of your arm (the humerus) meets the two bones of your forearm (the radius and the ulna). It's a hinge joint, which means that you can bend your arm. The upper part of the radius can also rotate on the smooth surface of the capitellum, a part of your humerus, which helps you to twist your forearm.

The end of the humerus has two main bony parts which you can feel at the sides of your elbow. These are:

- the lateral epicondyle on the outside of your arm
- the medial epicondyle on the inside of your arm (see Figure 1).

The lateral epicondyle is attached to the muscles involved in straightening (extending) your wrist and fingers. These extensor muscles are connected to the brain and nervous system primarily through the radial nerve, which travels on the outside of the elbow.

Elbow pain usually comes from strained or inflamed soft tissues.

The medial epicondyle is attached to the muscles involved in flexing your wrist and fingers, which let you grasp objects. These flexor muscles are connected to the brain and nervous system primarily through the median nerve, which runs in front of the elbow. The ulnar nerve, which lies just below the medial epicondyle, is mainly responsible for the movements of the small muscles of the hand (see Figure 2). These are useful for precise and delicate hand movements. You press the ulnar nerve when you hit your funny bone.

What causes elbow pain?

Most elbow pain has a very simple cause and clears up within a few days. The pain usually comes from strained or inflamed soft tissues such as tendons. Often, you can treat these spells of pain yourself with over-the-counter painkillers and a few days' rest, and you may not need to see your doctor. It's important not to rest for too long as lack of movement causes your joint to stiffen and the muscles around your elbow to weaken, increasing the likelihood of further symptoms. Simple exercises can help to reduce the risk of future problems (see the pull-out section at the back of this booklet). Long-term elbow pain can be caused by arthritis.

Arthritis of the elbow

As with any other joint in the body, the elbow can be affected by various types of arthritis. Osteoarthritis is the most common form of arthritis and it can affect just the elbow or a number of joints.

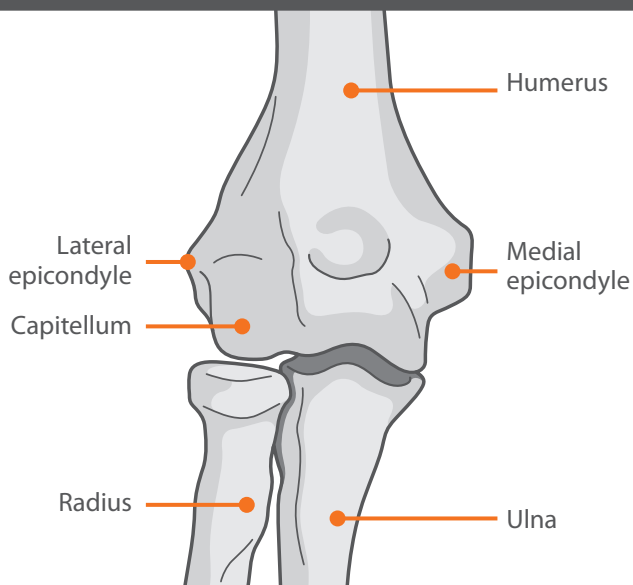


Figure 1
Bones and bony prominences in the elbow

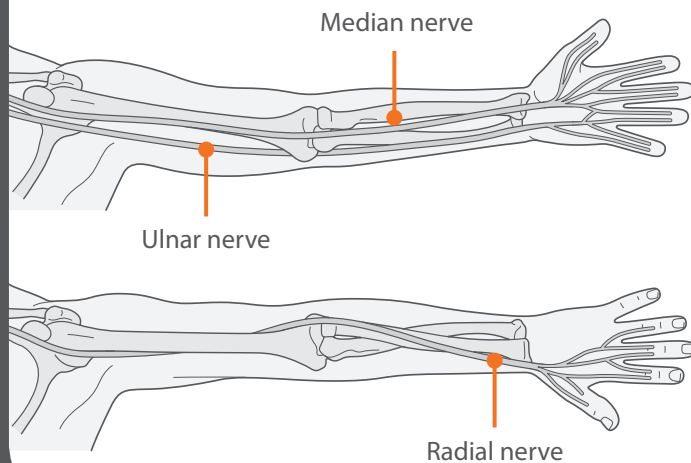


Figure 2
Nerves in the elbow



It has many causes and can happen if you've injured your elbow in the past, for example if you've fractured the joint. Rheumatoid arthritis also commonly affects the elbow.

i See Arthritis Research UK booklets *Osteoarthritis; Rheumatoid arthritis*.


Specific elbow problems are described in more detail later in the booklet.

Elbow stiffness

Arthritis in your elbow can also cause stiffness. While stiffness doesn't cause pain it can make your elbow feel uncomfortable. Losing any range of movement is called stiffness. Stiffness can happen due to problems with the elbow joint itself or with the muscles, ligaments or covering of the joint.

The most common causes of stiffness are osteoarthritis and fractures around the elbow, but it can also be caused by inflammation in the joint, for example if you have rheumatoid arthritis, or by abnormal bone formation. This is where bone forms in the muscles around your elbow following an injury or operation. We don't know why this happens.

Another cause is soft tissue contractures, which happen when the covering tissues around the elbow shrink. This can sometimes happen following injury.



Elbow stiffness can be a symptom of arthritis, but it's often caused by a short-lived injury.

Should I see a doctor?

Most cases of elbow pain will get better on their own or with simple self-help treatments. You should see your doctor if:

- your pain doesn't improve with simple painkillers after 2 weeks and you haven't had an injury or infection.
- you have tingling, numbness or weakness in your arm or hand.

You should visit your local A+E immediately if:

- you have an infection in your elbow joint – symptoms may include severe pain that makes you unable to move your arm, swelling, fever, heat and redness (although these symptoms can also be caused by rheumatoid arthritis)
- you think you've fractured your elbow – this will probably follow an obvious injury such as a hard impact or twisting of the arm (unless you have severe osteoporosis, when a fracture can occur after a minor knock), and you'll have pain, swelling and deformity which keeps getting worse.

What can I do to help myself?

There are several ways that you can help yourself if you have elbow pain. These include using painkillers and heat/ice packs, adapting your movements and exercising.

Adapting your movements

The first thing to do if you have elbow pain is to change or adapt any movements that might be causing your symptoms or making them worse, for example if you've been doing a lot of twisting movements, like using a screwdriver. Most cases of elbow pain won't improve until this is done. Flare-ups of some conditions can be eased by avoiding bending the elbow into positions that cause the symptoms.

If you think your work might be the main cause of your pain, especially if it involves repetitive movements, it's worth

discussing this with an occupational therapist. They'll be able to advise on how to change your movements and ways to support your elbow while it's healing. If your place of work has an occupational health department they may also be able to help.

i See Arthritis Research UK booklets
Occupational therapy; Work and arthritis.

Painkillers

Simple painkillers such as paracetamol will often help. It's best to take them before the pain becomes very bad, but you shouldn't take them more often than every 4 hours. Non-steroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen, which you can buy at chemists and supermarkets, can also help. You can use painkillers and NSAIDs for a short course of treatment of about a week to 10 days. If they've not helped after this time then they're unlikely to. However, if they do help but the pain returns when you stop taking them you could try another short course. You can also try rubbing anti-inflammatory creams or gels onto affected areas.

If you smoke or if you have circulation problems, high blood pressure, high cholesterol or diabetes, you should check with your doctor or pharmacist whether it's suitable for you to use over-the-counter NSAIDs because they may interact with any medication you're taking. You shouldn't take them if you're

Taking a short course of paracetamol or ibuprofen can relieve pain and help you to carry on exercising the joint.

asthmatic. If you have stomach problems after using over-the-counter medication, you should stop taking the tablets and see your doctor.

Like all drugs, NSAIDs can sometimes have side-effects, but if you're taking prescription NSAIDs your doctor will take precautions to reduce the risk of these – for example, by prescribing the lowest effective dose for the shortest possible period of time. NSAIDs can cause digestive problems (stomach upsets, indigestion or damage to the lining of the stomach) so in most cases NSAIDs will be prescribed along with a drug called a proton pump inhibitor (PPI), which will help to protect the stomach.

NSAIDs also carry an increased risk of heart attack or stroke. Although the

increased risk is small, your doctor will be cautious about prescribing NSAIDs if there are other factors that may increase your overall risk, such as those listed for over-the-counter NSAIDs.

i See Arthritis Research UK drug leaflets *Non-steroidal anti-inflammatory drugs; Painkillers.*

Splints

Using a splint called an epicondylitis clasp may relieve the strain when you're doing activities that cause flare-ups (see Figure 3). They put pressure on the muscle, which alters tension where the muscle is attached to the tendon. They're available from chemists, sports shops and physiotherapists.

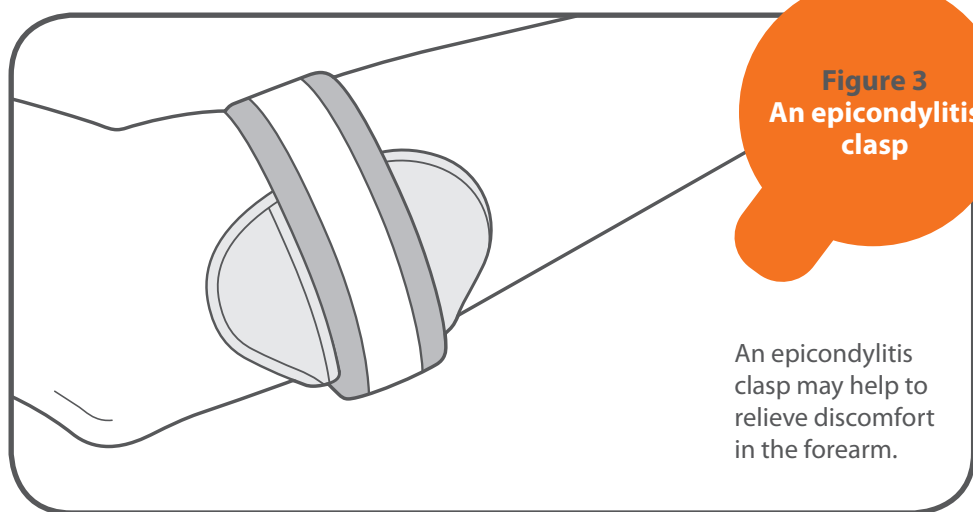


Figure 3
An epicondylitis clasp

An epicondylitis clasp may help to relieve discomfort in the forearm.

Exercise is one of the best ways of treating elbow pain. It'll stop the joint stiffening and muscles becoming weak, which will help prevent symptoms coming back in the future. Start exercising gently and build up gradually.

You'll probably notice some aches during or after exercising, but this is normal. If a particular exercise makes symptoms worse, stop it and try another one instead.

Heat/ice packs

Some people find that applying a heat pack or a hot-water bottle to the affected area can ease pain and stiffness. An ice pack, for example a bag of frozen peas, can have the same effect. You can also get reusable heat/ice packs from chemists or sports shops. Make sure that you don't put either the heat or ice pack directly onto your skin as they can cause burns. Both heat and ice packs should be removed if the skin becomes red and irritated.

Exercises

To prevent your elbow joint stiffening and your arm muscles weakening we recommend that you don't rest for more than a few days. Start some gentle exercise as soon as the pain begins to ease. Simple exercises can help to restore your range of movement, promote strength, ease stiffness and help get your elbow back to normal.

The exercises in the pull-out section at the back of this booklet show some simple strengthening exercises. They're all useful if you have osteoarthritis or rheumatoid arthritis, as long as you don't have a flare-up in your elbow, and you should try to do them every day. Start by exercising very gently and gradually build up.

As with any physical activity, you'll need to use some common sense in performing these exercises. While some aches or discomfort during or following exercise are normal and should be expected, if an exercise makes your symptoms significantly worse it should be stopped.

i See Arthritis Research UK booklets
Keep moving; Looking after your joints when you have arthritis.



Unless you've fractured your elbow, you should stretch the elbow out fully once a day to prevent contractures.

How are elbow problems diagnosed?

Most elbow problems can be diagnosed and treated after a simple examination, and it's unlikely that you'll need to have any special tests. Your doctor may occasionally suggest you have an x-ray, which can show abnormal bone formation and areas where the joint surfaces have worn away. Sometimes small pieces of loose bone can be seen in the joint. Very rarely an ultrasound scan or a magnetic resonance imaging (MRI) scan may be needed to rule out or confirm a diagnosis.

If your doctor thinks you have cubital tunnel syndrome (where the ulnar nerve is trapped), they'll do a nerve conduction test. This can help confirm the diagnosis or show how severe the compression is. Small electrodes are placed on your skin to stimulate the ulnar nerve. They can measure how fast the nerve impulse moves, and the length of delay will give an idea of how badly the nerve is being squeezed.

Sometimes elbow pain can be more persistent, or you may have other symptoms besides pain and stiffness. In this case it's best to speak to your doctor. They may suggest you have an x-ray or other tests to check for the cause of your symptoms and, depending on the problem, may recommend treatments such as physiotherapy or local steroid injections.



Specific elbow conditions

Some of the specific conditions that affect the elbow include the following:

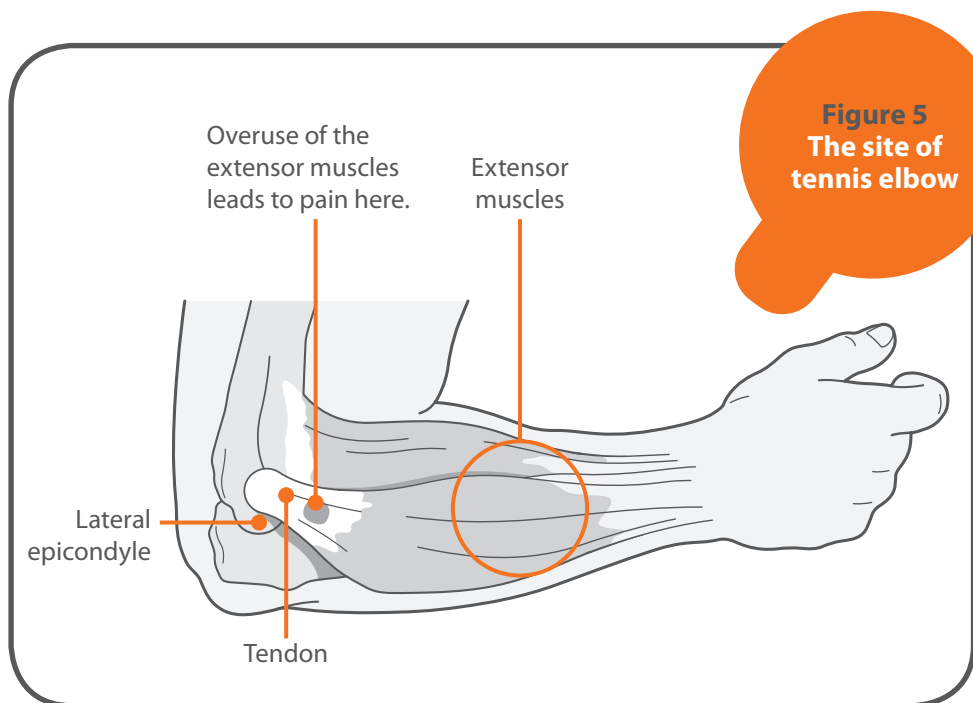
Repetitive strain injuries (non-specific forearm pain, overuse syndrome)

Some conditions may be caused by repeated movement of the elbow. As for any other part of the body, the term repetitive strain injury (RSI) may be used to describe the cause of the condition. RSI is also known as non-specific forearm pain or overuse syndrome. Types of RSI in the elbow include tennis elbow and golfer's elbow.

Tennis elbow

What is it?

Tennis elbow is a condition in which the tendons that attach the extensor muscles to the lateral epicondyle become inflamed and start to wear down, causing pain (see Figure 5). It's also known as lateral epicondylitis (itis = inflammation). Although tennis elbow is painful it shouldn't cause any lasting damage and doesn't lead to arthritis. Anybody can develop tennis elbow, but it's most common between the ages of 40–60.



Despite its name, tennis elbow isn't just caused by playing tennis. The exact cause isn't known, but it's associated with activities that involve repetitive extension of the wrist and hand. People who are continually gripping and twisting – for example carpenters and plasterers, or people who use a computer mouse – are more likely to get it. Almost 80% of people recover with basic treatment.

What are the symptoms?

The main symptoms are:

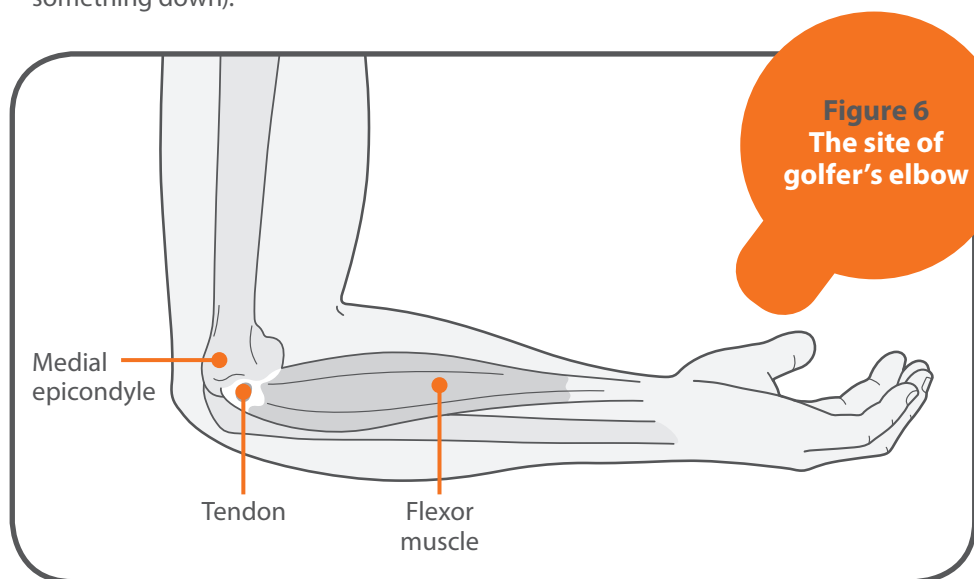
- pain on the lateral epicondyle (the bony area on the outside of the elbow)
- increased tenderness when pressure is applied on the outside of the elbow
- increased tenderness when straightening the elbow against a force (for example if you're putting something down).

The level of pain can vary from person to person, ranging from a mild discomfort to a severe ache that prevents you from sleeping. Repetitive movements of the wrist will make your symptoms worse, especially if combined with a weight (for example if you're lifting heavy boxes).

Golfer's elbow

What is it?

Golfer's elbow is a similar condition to tennis elbow, but it affects the medial epicondyle on the inside of the elbow. It's also known as medial epicondylitis, and it doesn't affect the elbow joint. It's caused by wear and tear in the tendon that attaches the flexor muscles to the medial epicondyle (see Figure 6).





Like tennis elbow, golfer's elbow isn't specifically caused by playing golf but certain activities that involve repeatedly flexing and twisting your forearm, wrist and hand and a tight grip can make the condition worse.

What are the main symptoms?

The main symptoms of golfer's elbow are:

- pain on the medial epicondyle (the bony area on the inside of the elbow)
- increased tenderness when pressure is applied on the inside of the elbow.

Olecranon bursitis

What is it?

Olecranon bursitis occurs when bursae become swollen and inflamed (see Figure 7). Bursae are normal structures which are found where

parts of the body move over one another, for example where tendons or ligaments pass over bones. They help to reduce friction. Normally they don't swell up, but when they become inflamed or infected they can become swollen and painful.

The olecranon is the bony tip you can feel on your elbow. It has a bursa between the bone and the skin. Olecranon bursitis most commonly occurs in people who get repetitive friction over the back of their elbow, for example if you often lean your elbows on a chair or table. Some people who have gout or rheumatoid arthritis can get inflammation of the bursa without any external pressure.

i See Arthritis Research UK booklet
Gout.

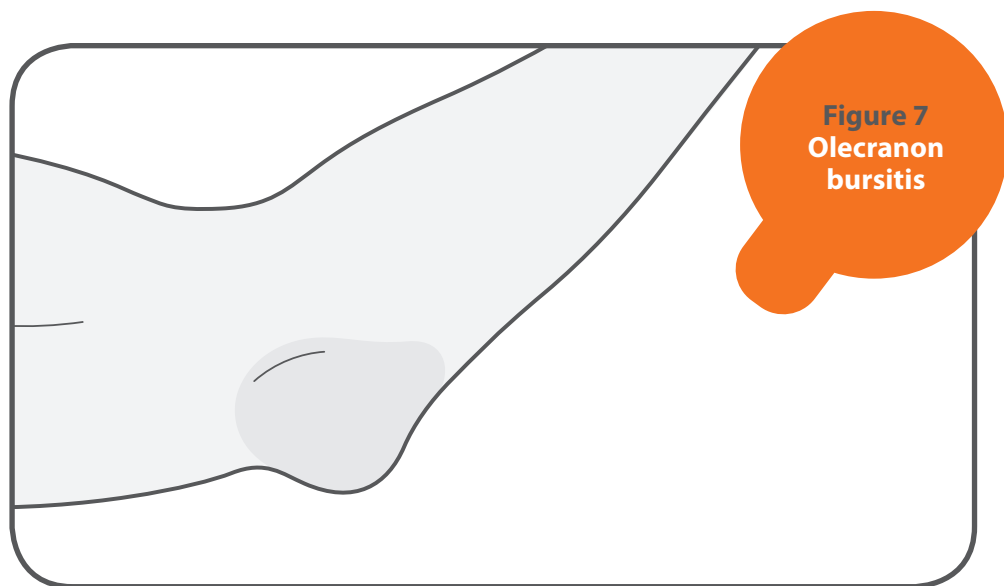


Figure 7
Olecranon
bursitis

What are the symptoms?

The main symptoms of olecranon bursitis are:

- swelling, pain and warmth over the bony part at the back of the elbow
- restricted movement of the elbow.

Most cases are caused by inflammation but occasionally bacteria can cause the bursa to become infected. If the condition is caused by an infection, your doctor will prescribe a course of antibiotics for you.

Compression/entrapment syndromes

If the nerves that travel across your elbow into your forearm (the median, radial and ulnar nerves) are trapped

Compression/entrapment syndromes are caused by pressure on nerves. Symptoms include pain and pins and needles.

(compressed) it can cause many different symptoms, ranging from pain or pins and needles in your forearm to weakness and wasting of your muscles. These are called compression or entrapment syndromes.





The symptoms produced vary depending on where the nerve is compressed. The median nerve can get trapped near your elbow or, more commonly, your wrist. The ulnar nerve is more commonly trapped around the elbow but can also be trapped at the wrist.

Cubital tunnel syndrome

What is it?

Cubital tunnel syndrome is caused by the ulnar nerve being squeezed where it passes around the inside edge of elbow. The compression may be a result of the normal coverings of the tunnel tightening, but rarely it can be due to abnormal bone formation caused by arthritis in the area. Other causes can include a fracture around the nerve which has healed into an abnormal position or excess bone forming when the fracture heals.

What are the symptoms?

The main symptoms of cubital tunnel syndrome are:

- tingling and numbness of your ring and little finger after your elbow has been kept bent (flexed) for long periods or you've been resting on the inner edge of your elbows – as the condition progresses the symptoms can come on after shorter periods
- weakness of the small muscles of your hand, causing your ring and little fingers to become claw-like – this only happens if it's left untreated.

Radial tunnel syndrome

What is it?

Radial tunnel syndrome is caused by the radial nerve being compressed below the elbow. It's caused by swellings on the joint or by the extensor muscle and its covering tightening and squeezing the nerve. Abnormal patterns of blood vessels around the elbow can also compress the nerve.

Radial tunnel syndrome is normally self-limiting, which means it'll eventually get better on its own.

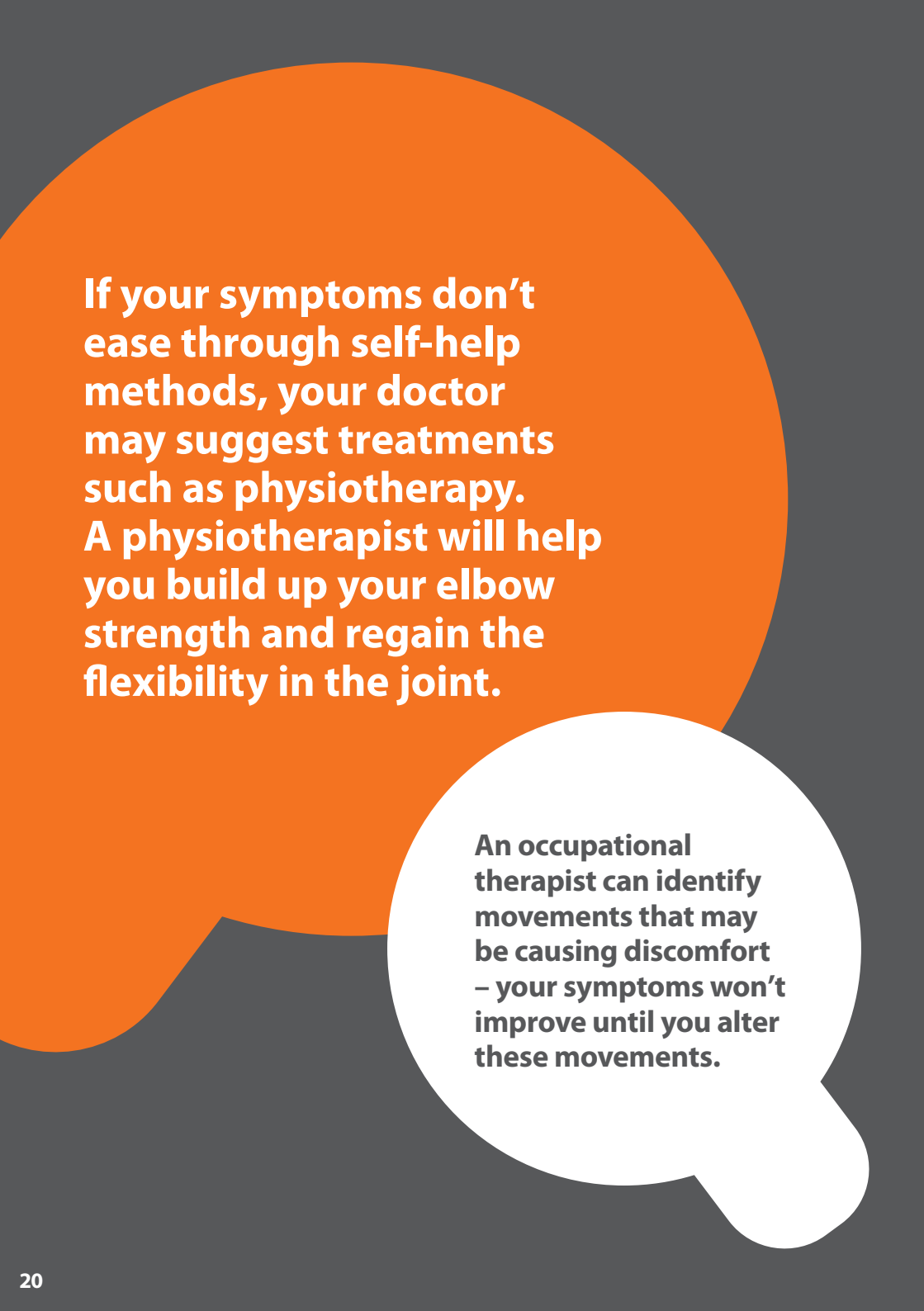
What are the symptoms?

The main symptom of radial tunnel syndrome is pain starting from the outside of the elbow and running down to the forearm. Because this type of pain also occurs in tennis elbow the two can be confused, but with radial tunnel syndrome there's no tenderness on the lateral epicondyle – the problem is further down the arm.

Distal biceps rupture

What is it?

The biceps is the main muscle on the front of the upper arm. Its upper (proximal) end is attached at the shoulder and its lower (distal) end is attached to the upper part of the radius by a tendon very close to the elbow joint. A distal biceps rupture is caused if this tendon tears, which can happen if you've lifted a heavy weight. You may have even heard the tendon snapping.



If your symptoms don't ease through self-help methods, your doctor may suggest treatments such as physiotherapy. A physiotherapist will help you build up your elbow strength and regain the flexibility in the joint.

An occupational therapist can identify movements that may be causing discomfort – your symptoms won't improve until you alter these movements.

What are the symptoms?

The symptoms of a distal biceps rupture are:

- pain in the elbow (although this eases)
- bruising around the elbow within a few hours to days after lifting the weight
- the bicep changing shape – this is commonly called the Popeye sign (see Figure 8)
- difficulty in twisting the forearm to turn the palm upwards – your arm will feel weak compared to the unaffected arm when doing this.

A similar condition can occur in the triceps, the muscle at the back of the arm. This is called a distal triceps rupture and it

can cause pain and swelling at the back of the elbow, and reduce the movement in your elbow. It's uncommon, but it can be caused by falling onto an outstretched hand.

What treatments are there for elbow pain?

Simple self-help treatments and a few days' rest are often enough to clear up a spell of elbow pain. However, if you do have a more complex or persistent problem, your doctor will be able to recommend other treatments and therapies that should help.

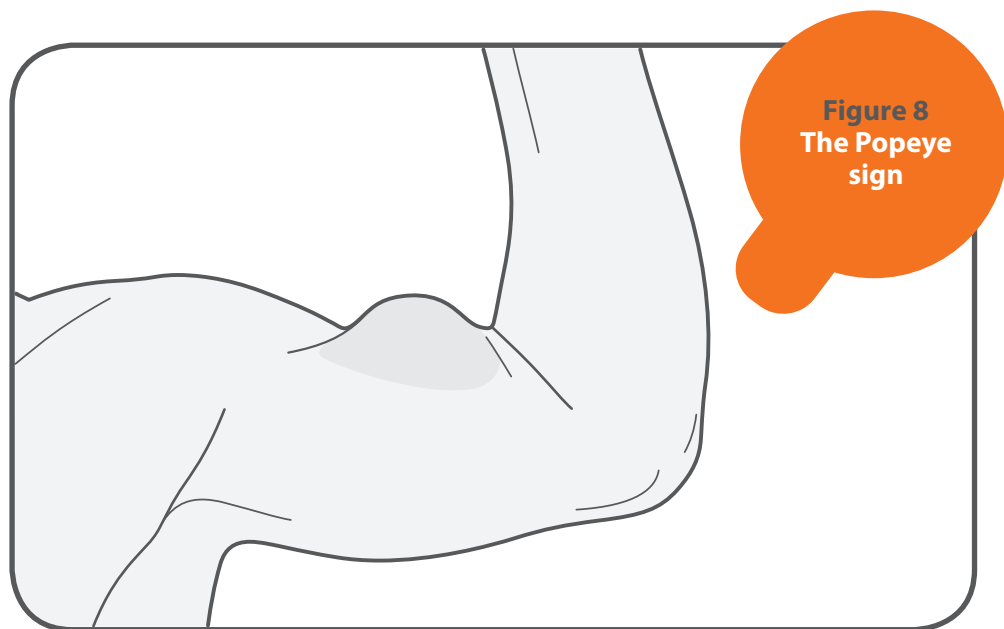
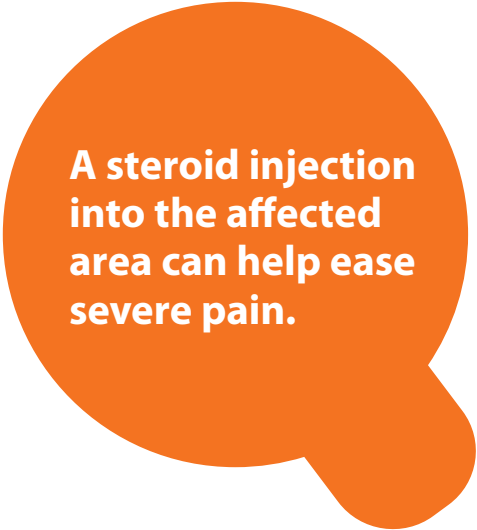


Figure 8
The Popeye
sign



A steroid injection into the affected area can help ease severe pain.

Physical therapies

Physiotherapy may be useful to help you build up the strength in your elbow and prevent the condition returning. Your physiotherapist will help you to keep up or regain the flexibility in your elbow through exercise, which will probably include some of the exercises included in this booklet. You should stretch out your elbow at least once a day and do general range-of-movement exercises to prevent contractures, and try biceps and triceps strengthening exercises with light weights or resistance bands as recommended by your physiotherapist.

Acupuncture is used widely in physiotherapy and can be used for pain relief in elbow conditions. Therapeutic ultrasound or low-level laser therapy (LLLT) may also be used to relieve pain and promote healing.

Physiotherapists can also fit epicondylitis clasps (see section What can I do to help myself?). Clasps are particularly useful for tennis and golfer's elbow but not cubital or radial tunnel syndrome.

Physiotherapists can strap or tape the joint or soft-tissue to reduce strain.

i See Arthritis Research UK booklet
Physiotherapy and arthritis.

Steroid injections

If you're in severe pain or you don't seem to be recovering within a few weeks, you should visit your doctor. They may suggest you have a local steroid injection into the affected area. The pain can become worse for a few hours afterwards, and occasionally it may be severe and last up to 48 hours, but the pain usually fades after this. A second injection may be necessary if the pain continues.

Steroid injections are an effective treatment with very few side-effects, although they're only effective in the short term (up to 6 weeks). Most people will get better over time whether they have an injection or not – sometimes an injection just speeds the recovery.

If you have an inflammatory arthritis of the elbow, like that seen in rheumatoid arthritis, your specialist may inject the joint as part of your treatment.

i See Arthritis Research UK drug leaflet *Local steroid injections.*

Surgery

Most cases of elbow pain will heal using the treatments above, but a small number of people will need surgery to ease their symptoms. There are different surgeries

for the conditions. Most operations are carried out as day-case procedures and you'll be able to go home the same day.

After the operation you'll need to follow a regular stretching programme at home as well as having physiotherapy. Ask your doctor to show you which stretches listed in this booklet will be useful. You'll probably need to go back to the hospital for a check-up after 2 weeks. You should usually only need 2 weeks off work unless your job involves heavy manual work, when you may need 4–6 weeks off.

Elbow stiffness

If your stiffness is caused by abnormal bone formation or soft tissue contractures, you may need an operation to remove the abnormal bone or release the contracted tissues. After the operation, your elbow will probably be moved with the help of a machine for a few days and you'll need intensive physiotherapy as an outpatient afterwards.

The operations probably won't restore your full range of movement, and the blood vessels and nerves around the shoulder can be damaged during the operation, but this isn't common. Sometimes abnormal bone can form in the muscles around the elbow, causing more stiffness.

Arthritis of the elbow

If loose pieces of bone are causing pain, they can be removed arthroscopically. This means the operation can be done through just a small cut (incision), so the joint doesn't have to be opened up. This type of operation is also known as keyhole surgery. Abnormal bone can be removed from the joint in an open surgical procedure (through a bigger incision).





If arthritis of the elbow is making it difficult for you to carry on with your daily life or is causing a lot of pain and restricting your movement, an elbow replacement may be an option. Your consultant rheumatologist or orthopaedic surgeon will tell you if this is necessary.


i See Arthritis Research UK booklet *Shoulder and elbow replacement surgery.*

Tennis elbow and golfer's elbow

Surgery is only needed for a small minority of people with these conditions. The operation for tennis elbow involves removing part of the affected tendon. For golfer's elbow the procedure involves clearing damaged tissue from the affected muscle. These operations can be done using keyhole surgery or through an incision approximately 4–5 cm long. You should be able to start using the elbow straight after these operations and you'll usually need a short course of physiotherapy.

Olecranon bursitis

A small minority may need surgery if this condition recurs or affects everyday activities. The operation involves removing the bursa through an incision at the back of the elbow. Some surgeons have recently started to use keyhole surgery for this procedure.



Only a small number of people will need surgery for their elbow condition – most cases will ease with other treatments.

Cubital and radial tunnel syndromes

A small minority will need surgery for these conditions. The operation involves making an incision to identify the affected nerve, which is then freed from the tissues that are pressing on it.

You can use your elbow for activities that don't involve heavy lifting straightaway and continue with other tasks as your pain allows.

Distal biceps rupture

Surgery may be recommended depending on your level of activity and whether or not your activities require you to twist your forearm. This operation involves making an incision over the front of the elbow and fixing the torn tendon onto the radius.

Most surgical wounds normally heal within 2 weeks, but if you've had an operation that involves the back of your elbow it may take longer because the skin here has a relatively low blood supply. The wound may also 'weep', although neither of these are very common.

Research and new developments

Arthritis Research UK is currently funding a study which aims to find out how cortisone, a steroid which is often given to treat tendon pain, causes tendon damage. This will hopefully lead to new treatments for tendon pain, such as golfer's elbow, which will protect against the side-effects of cortisone while keeping its positive pain-relieving effects. Another Arthritis Research UK-funded study is looking into the effects of earlier physiotherapy on the levels of long-term arm pain and whether resting or exercising is better for reducing pain.

A new technique called platelet-rich plasma (PRP) is becoming an increasingly popular treatment for tennis elbow. It involves taking a blood sample from the patient, which is then treated to increase the concentration of platelets. This is then re-injected into the painful area, stimulating healing in the nearby tissues. Recent international studies have shown that PRP may reduce pain and increase function more effectively than steroid injections.

Don't forget to try the exercises in the pull-out section at the back of the booklet. Your doctor or physiotherapist will be able to tell you which ones are suitable for you if you're unsure.

Glossary

Acupuncture – a method of obtaining pain relief that originated in China. Very fine needles are inserted, virtually painlessly, at a number of sites (called meridians) but not necessarily at the painful area. Pain relief is obtained by interfering with pain signals to the brain and by causing the release of natural painkillers (called endorphins).

Bursa – a small pouch of fibrous tissue lined (like a joint) with a synovial membrane. Bursae help to reduce friction; they occur where parts move over one another, e.g. where tendons or ligaments pass over bones. Others, however, form in response to unusual pressure or friction – for example, with a bunion.

Contractures – abnormal shortenings or contractions of muscle tissue which causes deformity.

Flare-up – periods where your joints become inflamed and painful, sometimes known as flares.

Gout – an inflammatory arthritis caused by a reaction to the formation of urate crystals in the joint. Gout comes and goes in severe flare-ups at first, but if not treated it can eventually lead to joint damage. It often affects the big toe.

Inflammation – a normal reaction to injury or infection of living tissues. The flow of blood increases, resulting in heat and redness in the affected tissues, and fluid and cells leak into the tissue, causing swelling.

Ligaments – tough, fibrous bands anchoring the bones on either side of

a joint and holding the joint together. In the spine they're attached to the vertebrae and restrict spinal movements, therefore giving stability to the back.

Magnetic resonance imaging (MRI) – a type of scan that uses high-frequency radio waves in a strong magnetic field to build up pictures of the inside of the body. It works by detecting water molecules in the body's tissue that give out a characteristic signal in the magnetic field. An MRI scan can show up soft-tissue structures as well as bones.

Non-steroidal anti-inflammatory drugs (NSAIDs) – a large family of drugs prescribed for different kinds of arthritis that reduce inflammation and control pain, swelling and stiffness. Common examples include ibuprofen, naproxen and diclofenac.

Occupational therapist – a therapist who helps you to get on with your daily activities (e.g. dressing, eating, bathing) by giving practical advice on aids, appliances and altering your technique.

Osteoarthritis – the most common form of arthritis (mainly affecting the joints in the fingers, knees, hips), causing cartilage thinning and bony overgrowths (osteophytes) and resulting in pain, swelling and stiffness.

Osteoporosis – a condition where bones become less dense and more fragile, which means they break or fracture more easily.

Physiotherapy – a therapy that helps to keep your joints and muscles moving, helps ease pain and keeps you mobile.

Platelets – disc-shaped cells in the blood that help the blood to clot when there is bleeding.

Proton pump inhibitor (PPI) – a drug that acts on an enzyme in the cells of the stomach to reduce the secretion of gastric acid. They're often prescribed along with non-steroidal anti-inflammatory drugs (NSAIDs) to reduce side-effects from the NSAIDs.

Rheumatoid arthritis – an inflammatory disease affecting the joints, particularly the lining of the joint. It most commonly starts in the smaller joints in a symmetrical pattern – that is, for example, in both hands or both wrists at once.

Tendon – a strong, fibrous band or cord that anchors muscle to bone.

Ultrasound scan – a type of scan that uses high-frequency sound waves to examine and build up pictures of the inside of the body.

Where can I find out more?

If you've found this information useful you might be interested in these other titles from our range:

Conditions

- *Gout*
- *Osteoarthritis*
- *Osteoporosis*
- *Rheumatoid arthritis*

Therapies

- *Occupational therapy and arthritis*
- *Physiotherapy and arthritis*

Surgeries

- *Shoulder and elbow joint replacement*

Self-help and daily living

- *Keep moving*
- *Looking after your joints when you have arthritis*
- *Work and arthritis*

Drug leaflets

- *Non-steroidal anti-inflammatory drugs*
- *Painkillers*
- *Local steroid injections*

You can download all of our booklets and leaflets from our website or order them by contacting:

Arthritis Research UK

PO Box 177
Chesterfield
Derbyshire S41 7TQ
Phone: 0300 790 0400
www.arthritisresearchuk.org

Related organisations

The following organisations may be able to provide additional advice and information:

Arthritis Care

18 Stephenson Way
London NW1 2HD
Phone: 020 7380 6500
Helpline: 0808 800 4050
www.arthritiscare.org.uk

Offers self-help support, helpline service (on both numbers above) and a range of leaflets on arthritis.

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

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We're here to help

Arthritis Research UK is the charity leading the fight against arthritis.

We're the UK's fourth largest medical research charity and fund scientific and medical research into all types of arthritis and musculoskeletal conditions.

We're working to take the pain away for sufferers with all forms of arthritis and helping people to remain active. We'll do this by funding high-quality research, providing information and campaigning.

Everything we do is underpinned by research.

We publish over 60 information booklets which help people affected by arthritis to understand more about the condition, its treatment, therapies and how to help themselves.

We also produce a range of separate leaflets on many of the drugs used for arthritis and related conditions. We recommend that you read the relevant leaflet for more detailed information about your medication.

Please also let us know if you'd like to receive our quarterly magazine, Arthritis Today, which keeps you up to date with current research and education news, highlighting key

projects that we're funding and giving insight into the latest treatment and self-help available.

We often feature case studies and have regular columns for questions and answers, as well as readers' hints and tips for managing arthritis.

Tell us what you think of our booklet

Please send your views to:
feedback@arthritisresearchuk.org
or write to us at:

Arthritis Research UK, PO Box 177,
Chesterfield, Derbyshire S41 7TQ.

A team of people contributed to this booklet. The original text was written by consultant upper limb surgeon Shyam Kumar, who has expertise in the subject. It was assessed at draft stage by senior lecturer in rheumatology Dr Ian Giles, consultant rheumatologist Dr Alan Hakim, senior physiotherapist Karen Smith and consultant physician and rheumatologist Dr Fiona Wood. An **Arthritis Research UK** editor revised the text to make it easy to read and a non-medical panel, including interested societies, checked it for understanding. An **Arthritis Research UK** medical advisor, Dr Jonathan Hill, is responsible for the content overall.

Get involved

**You can help to take the pain away
from millions of people in the UK by:**

- volunteering
- supporting our campaigns
- taking part in a fundraising event
- making a donation
- asking your company to support us
- buying gifts from our catalogue.

To get more **actively involved**, please
call us **0300 790 0400** or email us at
enquiries@arthritisresearchuk.org

or go to:
www.arthritisresearchuk.org

Providing answers today and tomorrow



Providing answers today and tomorrow

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Tel 0300 790 0400

calls charged at standard rate

www.arthritisresearchuk.org

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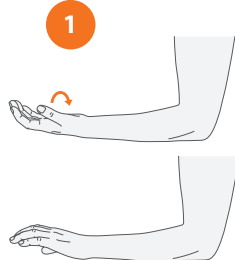
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Exercises for elbow pain

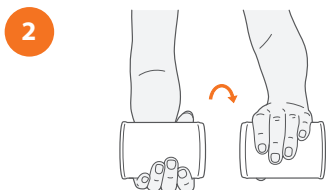
This handy tear-off section contains exercises that are designed to stretch, strengthen and stabilise the structures that support your elbow.

Simple exercises



Wrist turn

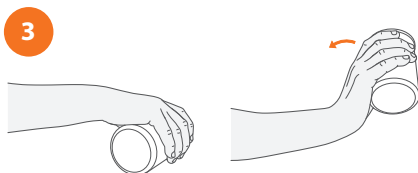
Bend your elbow at a right angle and hold out your hand, palm up. Turn your wrist slowly so that your palm is now facing down. Hold for 5 seconds, and then slowly release. Do 3 sets of 10 repetitions.



Wrist turn with weight

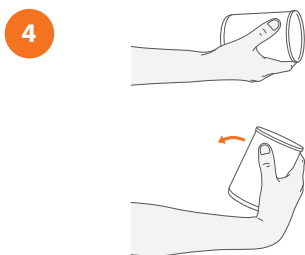
Repeat the exercise while holding a light weight (e.g. a tin of beans).

! You shouldn't do any of the exercises with weights if you have tennis elbow.



Wrist lift (palm down)

Bend your elbow at a right angle. Hold a light weight (e.g. a tin of beans), palm down. Bend your wrist slowly towards you. Hold for 5 seconds, and then slowly release. Do 3 sets of 10 repetitions.



Wrist lift (palm up)

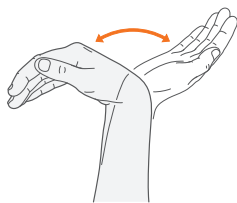
Bend your elbow at a right angle. Hold a light weight (e.g. a tin of beans), palm up. Bend your wrist slowly towards you. Hold for 5 seconds, and then slowly release. Do 3 sets of 10 repetitions.



Elbow bend

Stand up straight and lower your arm to one side. Bend your arm slowly upwards so your hand is touching your shoulder. Hold for 15–30 seconds. Repeat 10 times. You can also use a light weight to help build up strength in your biceps and triceps, which is good for a biceps rupture.

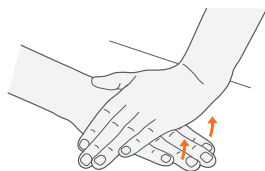
6



Wrist bend

Rest your elbow on a table, arm pointing up, wrist straight. Gently bend your wrist forward at a right angle and hold for 5 seconds. Straighten your wrist. Gently bend it backwards and hold for 5 seconds. Do 3 sets of 10 repetitions.

7



Palm lift

Place your palm on the table and lift the fingers up. Place your other hand across the knuckles at 90° and push down as the bottom hand tries to pull up. You should feel the muscles of your forearms contracting. Swap hands and repeat.

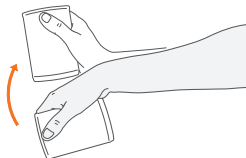
8



Wrist flex

Keeping your arm straight in front with your palm facing down, gently bend your wrist down. Use the opposite hand to press the stretching hand back towards your body and hold for 15–30 seconds. Straighten your wrist. Gently bend the stretching hand backwards and use the opposite hand to pull the fingers back. Hold for 15–30 seconds. Do 3 sets with each wrist. This exercise is especially good if you have tennis elbow, and starting it with the palm facing up is good for golfer's elbow.

9



Wrist stretch with weight

Holding a light weight (e.g. a tin of beans), stretch your arm out in front with your palm down. Slowly bend your wrist upward, and then return to the starting position in a handshake motion. Do 3 sets of 10 repetitions. Gradually increase the weight you hold.

Keeping active with elbow pain

It's important to keep active – you should try to do the exercises that are suitable for you every day. Start by exercising gradually and build up over time, and remember to carry on even when your elbow is better to prevent your symptoms returning. If you have any questions about exercising, ask your doctor or physiotherapist.