Tennis elbow or lateral epicondylitis

This leaflet is for patients who have been diagnosed with lateral epicondylitis or 'tennis elbow'.

This information has been produced to help you gain the maximum benefit and understanding of your condition and any treatment options available.
It includes the following information:

- Key points
- About your elbow
- What is tennis elbow
- Treatment options
- About the operation including the risks and alternative solutions
- Frequently asked questions
- Exercises
- Contact details
- Useful links

Key points

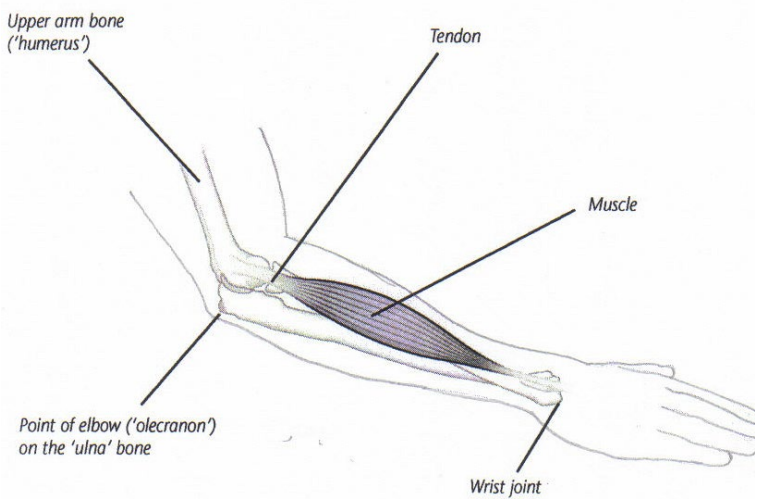
These are the key points to remember about having tennis elbow:

1. It is a self-limiting condition – no-one ever has it forever.
2. 90% of people are better after 1 year.
3. Physiotherapy, activity modification and simple exercises will control the symptoms in most people.
4. Injections are reserved for very resistant cases.
5. An operation is only considered as a last resort.

About your elbow

The elbow consists of the upper arm bone and two bones in the forearm. It has two joints:

- One joint acts as a hinge, enabling you to bend and straighten your elbow.



- One joint provides rotation of your forearm, for example, to put your palm up towards the ceiling to receive change in a shop.
- The joint is surrounded by muscles, some which move the elbow and others the wrist and fingers.
- Muscles are attached to the bones by tendons.
- In addition, there are nerves which pass close by the joint (e.g. hitting your elbow can produce pain and pins and needles in the forearm and/or fingers).

What is tennis elbow?

It is a problem with the tendons that attach the muscles of the wrist and fingers to the bone on the outside of the elbow. One or more of the tendons become painful, thickened or swollen and the discomfort can be felt into the forearm (i.e. along the length of the muscles).

A similar pain can be felt on the inside of the elbow. This is sometimes called medial tennis elbow or ‘golfer’s elbow’ where it affects different tendons.

When you have a tennis elbow, other structures that are close to the tendon may be affected, such as the nerves or joints; and the muscles that are attached to the tendons can become weakened.

How common is it?

It occurs at any age (most frequently between 40-50 years) and is more common in women than men.

What are the symptoms?

Varying degrees of pain, on the outside of the elbow; from mild discomfort to severe pain interfering with sleep. Gripping or twisting movements are often painful, and may be worse against resistance (weight) or when the arm is out straight. Repeated movements such as DIY or computer mouse work can often cause aggravation.

The outside of your elbow may be very tender to touch and you may notice some pain travelling down the forearm.

Why does it occur?

The exact cause of lateral epicondylitis is unknown. Most people do not play tennis!

It may happen as a result of a sporting injury or from repetitive wrist and hand movements in work, e.g. keyboard work; but sometimes it occurs for no apparent reason.

However, it is thought to be an overuse problem and this relates both to how long and how hard the muscles are worked.

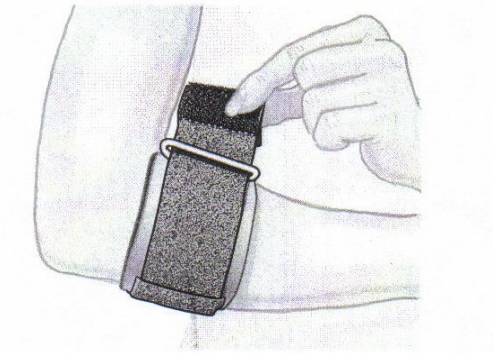
What can I do to help ease the symptoms?

Although tennis elbow often sounds like a trivial problem it is also very painful and can make life quite difficult. The most important thing to remember is this is a self-limiting condition, which means that it will get better on its own eventually. How long this takes is extremely variable and can range from a few months to several years! 80% of people are better within 1 year. The trick

is to find ways of keeping the symptoms under control until it gets better. There are lots of things you can do.

Tips:

- **REST.** Resting the elbow between bouts of activity or by stopping sport for a few weeks can make a big difference.
- Be aware of the amount of force that you use to grip things. Try and use the minimum amount of force to maintain contact.
- Never lift anything with the back of your hand showing; try to pick up 'palm up'.
- Altering the grip size on objects you use may also have some beneficial effect. Often enlarging the grip helps, and reducing the weight of rackets/tools etc. is useful.
- If you are involved in a sport or hobby using repetitive movements, seek expert advice on your technique. A chartered physiotherapist may be able to give you advice on your movement patterns as well as appropriate stretching and progressive strengthening exercises.
- If you are involved in a profession using repetitive movements such as keyboard or mouse work, or a profession requiring repetitive manual handling activities have a look at your workstation and work activities. A chartered occupational health physiotherapist would be able to advise and may visit you at work to help reduce these problems.
- Ice cube massage: apply oil to the tender area first to protect the skin and then massage with a wet ice cube for up to 10 minutes.
- Anti-inflammatory cream: apply over the tender area. This is available from the chemist without a prescription, but check you have no allergies or conditions that may be affected.
- Using a splint or brace may be helpful if the pain is very severe. There are many available but most physiotherapists recommend a counter-force brace (see right), which aims to decrease the tension on the tendon. Place the brace just below the painful area (i.e.2 to 3 finger widths below the bony part of the elbow). Wear it when you are using your arm and take it off at night/resting.

  Experiment with the brace in slightly different places – if it is going to work it normally makes an immediate difference. The best test for the ideal position is the gripping action.

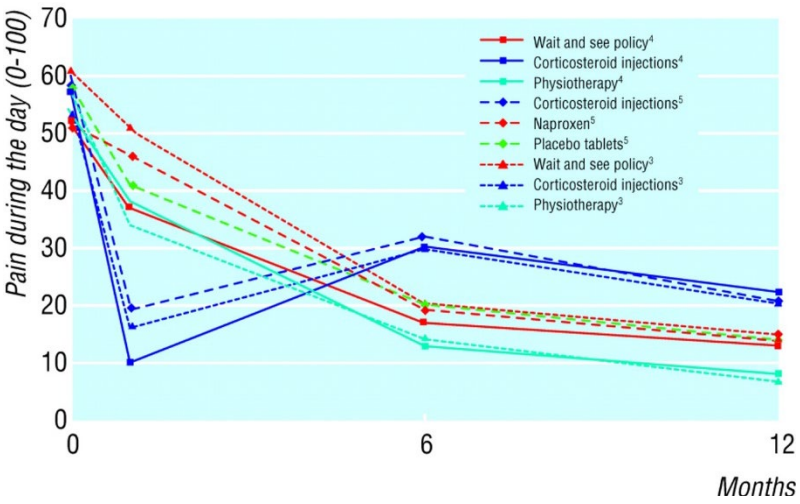
  You can obtain the splints from many sources including the NHS orthotics department (ask your specialist) and on the internet (e.g., www.physiosupplies.com (epicondylitis clasp), www.amazon.co.uk), or some large chemists will obtain one for you.

What are your other treatment options?

The graph overleaf is based on three big studies of the treatment of tennis elbow comparing 'wait and see' with physiotherapy with cortisone injections.

The graph shows that, for most people, the pain of tennis elbow has almost gone within 12 months of first symptoms.

The addition of physiotherapy tends to improve symptoms. The use of cortisone injections, soon after the onset of symptoms, causes a drastic improvement in pain for a while but 6 and 12 months later the pain rebounds and is worse than for those people who did not have cortisone injections.



- **Painkillers and anti-inflammatory tablets:** available from your pharmacist or prescribed by your GP.
- **Physiotherapy** – this may include treatments to relieve pain, reduce inflammation and scar tissue, mobilise surrounding joints and nerves and exercise programmes to re-strengthen the muscles. The physiotherapist may use a combination of manual techniques, using their hands, and electrotherapy treatments, such as ultrasound. Thorough assessment of your arm, advice on possible aggravating factors and how to reduce them, and exercises are important aspects of treatment and should remain part of your overall rehabilitation programme.
- **Acupuncture** – some people find this to be a miracle cure, others find it makes no difference at all. You will not know whether it will work for you until you try it. You should know within 2 to 3 sessions if it is going to help. Many physiotherapists offer acupuncture as part of their conservative treatment approach to tennis elbow.
- **Injection** – this is usually local anaesthetic and steroid (cortisone). Although it can be a painful procedure, injection can have a good effect. Research now suggests that cortisone injections, while helpful for a while, can make the pain come back worse than ever (rebound pain). They are therefore usually reserved for people with tennis elbow which isn't improving with other simpler methods. Doctors will generally not want to give more than 3-5 injections in a year, and if your symptoms keep returning, other treatment methods would be suggested. The injections may make the skin at the injection site go pale and thin.
- **PRP injection** – this is an experimental technique of injecting a selected portion of your own blood back (a concentrated version of the naturally circulating healing factors) into the painful bit of the elbow. These injections have been proven to be effective in some studies.
- **Operation** – This is usually a last resort and is reserved for people who have persistently painful symptoms despite trying all other treatments.

Operation: tennis elbow release

Most people are given a full general anaesthetic (i.e. you will be asleep) although it can be done by numbing the whole arm. The operation can be performed open (with a cut on the side of the elbow) or arthroscopically (keyhole). The area of tendon responsible for persisting pain is identified and released from its attachment to bone. When the procedure is performed arthroscopically any other problems inside the elbow can be addressed at the same time. The choice between having it done open or keyhole can be discussed with your surgeon.

What are the risks?

All operations involve an element of risk. We do not wish to over-emphasise them but feel that you should be aware of them before and after your operation.

Generally, this is a very safe but not particularly reliable operation. Only about two-thirds of people are really pleased with the outcome, the rest are no better but seldom worse than before.

The risks include:

a) **Anaesthetic complications** such as nausea and sickness, or rarely cardiac, respiratory or neurological (less than 1% each, i.e. less than one person out of one hundred).
b) **Infection.** This is usually a superficial wound problem. Occasionally deep infection may occur many months after the operation (rare; less than 1%).
c) **Pain and stiffness** in the elbow. Up to 35% of patients will still have symptoms after the operation.
d) **Revision.** A need to re-do the surgery is uncommon (less than 10%).
e) **Nerve and blood vessel injury** around the elbow (rare; less than 1%).

Please discuss these issues with the doctors if you would like further information.

What are the alternatives?

Probably you have tried most of the alternative solutions for your elbow pain before considering surgery. Not all options are appropriate for all people.

If the range of non-operative treatments have not worked then you may choose to live with the condition rather than have the operation. In most people the painful symptoms will eventually disappear within 2 years of starting.

Questions that we are often asked about the operation

Will it be painful?

Please purchase packets of tablets such as paracetamol (painkillers) and anti-inflammatories (e.g. nurofen, ibuprofen, diclofenac) before coming into hospital.

- During surgery local anaesthetic will be put around the elbow wound to help reduce the pain.
- Be prepared to take your tablets as soon as you start to feel pain.
- If needed take the tablets regularly for the first 2 weeks and after this time only as required.
- If stronger tablets are required or if you know you cannot take paracetamol or anti-inflammatories talk to your GP.
- The use of ice packs or heat may also help relieve pain in your elbow.
- The amount of pain you will experience will vary and each person is different. Therefore take whatever pain relief you need.

Do I need to wear a sling?

Yes, you will be given a sling before you go home. You can take it on and off as you wish although resting the elbow for 6 weeks after the operation is an important part of the treatment.

When can I go home?

Often you can go home the same day.

Do I need to do exercises?

You will be shown exercises by the physiotherapist responsible for your post-operative rehabilitation and you will need to continue with the exercises once you go home. To get you started, do the exercises at the end of this leaflet to stop your elbow getting stiff.

What do I do about the wound?

You will have one long dissolving stitch which does not need to be removed. The two ends, which look like fine fishing line, will fall off naturally after a couple of weeks. If you have had arthroscopic surgery (keyhole) there will be no stitches to worry about.

Unwind the bulky bandage 48 hours after the operation but leave on the dressing covering the wound for 14 days. Use the tubigrip dressing to apply gentle compression during the day.

Keep the wound dry until it is healed, which is normally within 14 days. You must keep it covered when showering or bathing for the first 2 weeks.

When do I return to the outpatient clinic?

This differs depending on your consultant but it is usually arranged for 3 months after your operation to check on your progress. Please discuss any queries or worries you may have when you are at the clinic. Further clinic appointments are made after this as necessary.

Are there things that I should avoid?

Yes, you must avoid heavy, strenuous and repetitive tasks for 6 weeks after the operation. However, do not be frightened to start moving the elbow and in particular remember to keep stretching the elbow out straight several times a day from as soon as you get home.

Gradually the movements will become less painful.

How am I likely to progress?

It is important to recognise that improvement is slow and that this is not a quick fix operation. By 3 weeks after operation you will not have noticed much improvement and it is common for people to wonder whether they made the right decision about having the operation done. However, you should have recovered nearly full movement. By 3 months after operation most people are delighted and have noticed a great improvement in their symptoms. Everything continues to improve slowly and by 9 to 12 months after the operation your elbow should be really good.

When can I drive?

You can drive as soon as you feel able to comfortably control the vehicle when you are not wearing a sling. This is normally about 3 weeks. It is advisable to start with short journeys.

When can I return to work?

This will depend on the type of work you do. Most people return within a month of the operation but if your job involves heavy lifting or sustained overhead arm movement you may require a longer period of rehabilitation.

Please discuss your return to work with your physiotherapist to ensure any potential aggravating factors, that you may have identified before your operation, e.g. keyboard/mouse use or manual handling activities, are addressed.

A visit to your workplace by a chartered occupational health physiotherapist is often helpful.

When can I participate in my leisure activities?

Your ability to start these activities will be dependent on pain, range of movement and strength that you have in your elbow. You must avoid heavy, strenuous and repetitive tasks for 6 weeks after the operation. It is best to start with short sessions involving little effort and then gradually increase the effort or time for the activity. However, be aware that sustained or powerful overhead movements (e.g. trimming a hedge, some DIY, racket sports etc) will put stress on the elbow and may take longer to become comfortable.

Exercises

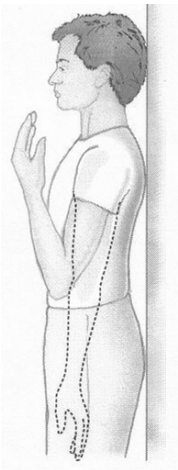
- Use painkillers and/or ice packs to reduce the pain before you exercise.
- It is normal for you to feel aching, discomfort or stretching sensations when doing these exercises. However, if you experience intense and lasting pain (e.g. more than 30 minutes) reduce the exercises by doing them less forcefully or less often. If this does not help, discuss the problem with the physiotherapist.
- Certain exercises may be changed or added specifically for your elbow.
- Do short frequent sessions (e.g. 5-10 minutes, 4 times a day) rather than one long session.
- Gradually increase the number of repetitions you do. Aim for the repetitions that your therapist advises, the numbers stated here are rough guidelines.
- The exercises can be done standing, sitting or lying down.

Straightening your elbow

4 times a day

Let your arm relax down straight.

Repeat 5 times.



Rotating/twisting

4 times a day

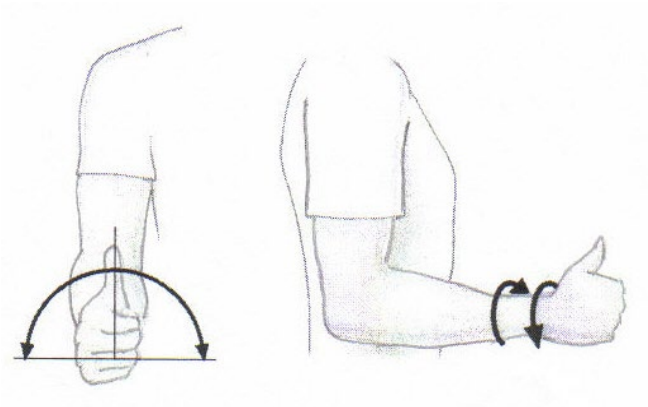
Rest your forearm on a flat surface.

Try and turn your palm up towards the ceiling.

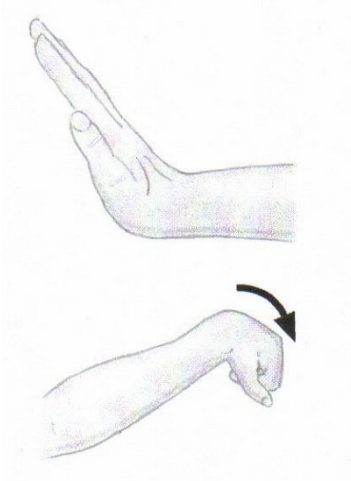
Then turn palm down.

Do not lift the elbow off the table.

Repeat each movement 5 times.



Wrist exercises



4 times a day

Keep your arm in the sling or rest your forearm on a flat surface.

Keeping your forearm still, move your hand up and down, bending at the wrist.

Do this with your fingers straight and then with them bent (i.e. with fingers straight and curled).

Repeat each 5 times.

This leaflet is not a substitute for professional medical care and should be used in association with treatment at your hospital. Individual variations requiring specific instructions not mentioned here might be required. It was compiled by Mr Harry Brownlow (Consultant Orthopaedic Surgeon), Jenny Collis, Emma Lean and Catherine Anderson (Specialist Physiotherapists) in and is based on the information sheet produced by Jane Moser (Superintendent Physiotherapist) and Professor Andrew Carr (Consultant Orthopaedic Surgeon) at the Nuffield Orthopaedic Centre in Oxford.

Useful links

www.orthogate.org/patient-education/elbow/lateral-epicondylitis-tennis-elbow.html

NHS Choices (www.nhs.uk/Conditions/Tennis-elbow/Pages/Introduction.aspx)

Arthritis Research Campaign (www.arthritisresearchuk.org/arthritis_information/arthritis_types__symptoms/tennis_elbow.aspx#non)

Contacting us

If you have any concerns or problems following your discharge, you can contact the ward for general advice by telephoning:

Redlands Ward 0118 322 7485

Hurley Trauma Unit 0118 322 7335 / 7336

Adult Day Surgery Unit 0118 322 7622

Pre-op Assessment 0118 322 6546

Orthopaedic Clinical Admin Team (CAT5) 0118 322 7415 or email: rbbh.CAT5@nhs.net.

Any concerns you may have during the first 24 hours of your discharge please telephone the ward you were on. After 24 hours please seek advice from your GP or NHS111.

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Please ask if you need this information in another language or format.

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