

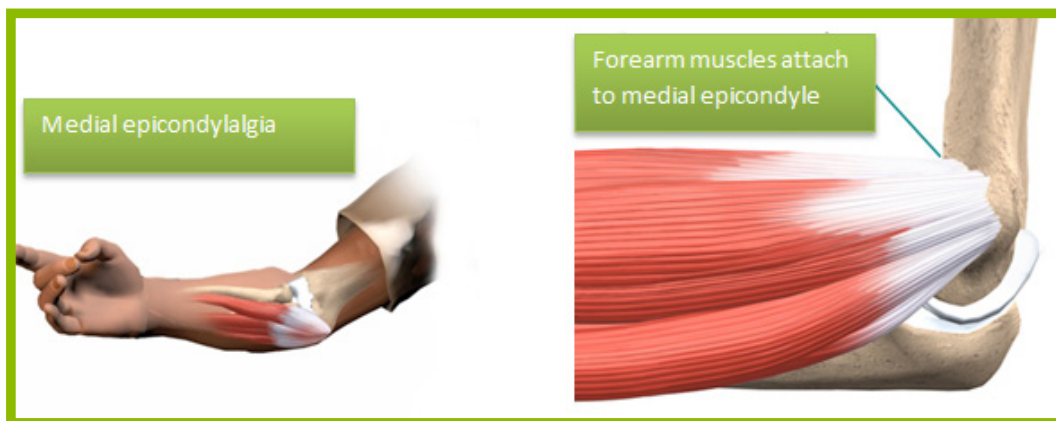
Physio Med Self Help for Golfer's Elbow (Medial Epicondylalgia)

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Medial epicondylalgia (previously known as epicondylitis) is commonly known as golfer's elbow. This does not mean that only golfers have this condition. But the golf swing is a common cause of medial epicondylalgia. Many other repetitive activities can also lead to golfer's elbow: throwing, lifting, and chopping wood with an axe, weight training and gripping when using many types of hand tools, even typing with poor technique. Any activities that repeatedly stress the same forearm muscles can cause symptoms of golfer's elbow.

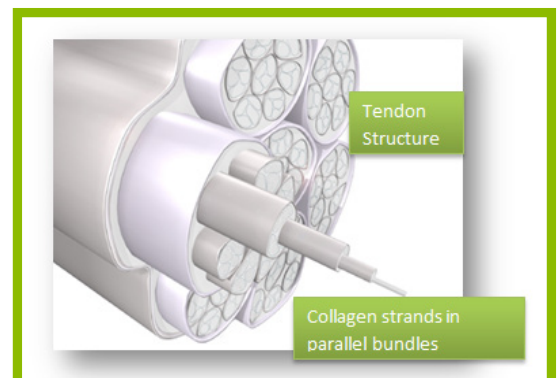
Anatomy of the Area

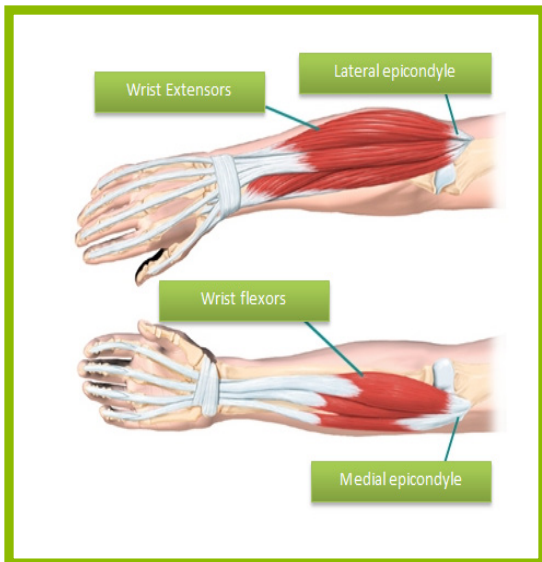
Golfer's elbow causes pain that starts on the inside bump of the elbow, the medial epicondyle. Wrist flexors are the muscles of the forearm that pull the hand forward. The wrist flexors are on the palm side of the forearm. Most of the wrist flexors attach to one main tendon on the medial epicondyle. This tendon is called the common flexor tendon.



Tendons connect muscle to bone. Tendons are made up of strands of a material called collagen. The collagen strands are lined up in bundles next to each other.

Because the collagen strands in tendons are lined up, tendons have high tensile strength. This means they can withstand high forces that pull against both ends of the tendon. When muscles work, they pull on one end of the tendon. The other end of the tendon pulls on the bone, causing the bone and therefore the joint to move.

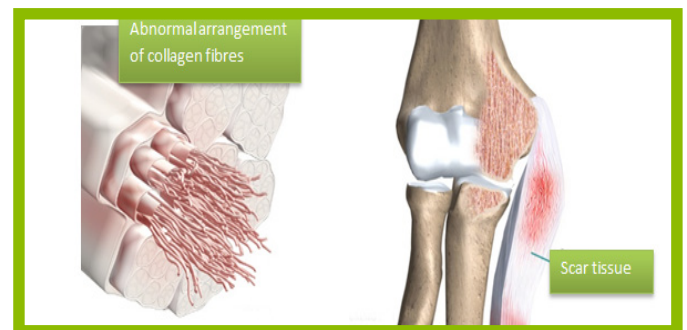




The wrist flexor muscles contract when you flex your wrist (bend your wrist in the direction of your palm), twist your forearm down, or grip with your hand. The contracting muscles pull on the flexor tendon. The forces that pull on the tendon can build when you grip a golf club during a golf swing or do other similar actions.

In some cases, the symptoms of golfer's elbow are due to inflammation. In an acute injury, the body undergoes an inflammatory response. Special inflammatory cells make their way to the injured tissues to help them heal.

However, golfer's elbow often is not caused by inflammation. Rather, it is a problem within the cells of the tendon. Wear and tear is thought to lead to tissue degeneration. Instead of inflammatory cells, the body produces a type of cells called fibroblasts. When this happens, the collagen loses its strength. The affected area becomes fragile and can be easily injured. Each time the collagen breaks down, the body responds by forming scar tissue in the tendon. Eventually, the tendon becomes thickened from extra scar tissue.



Some Practitioners think that the forearm tendon develops small tears with too much activity. The tears try to heal, but constant strain and overuse keep re-injuring the tendon. After a while, the tendons stop trying to heal. The scar tissue never has a chance to fully heal, leaving the injured areas weakened and painful.

Occasionally the pain may be associated with neck pain and pinched nerves in the neck which may, without you realising it, make the muscles weaker than normal.

Nerves of the neck and arm

The brachial plexus which has 3 major trunks of nerves (the median, radial and ulnar nerves) originates from the neck. Each nerve comes out between a pair of neck vertebrae and they join together to form the trunks. The nerves then travel down the arm.

A pinched nerve produces symptoms such as pain, numbness, tingling and hot and cold feelings anywhere down the arm and hand depending on which nerve is affected. Common sites for the nerve to be pinched are up in the neck between the vertebra and also around the outside of the elbow.

The median nerve can be particularly affected with Golfer's Elbow – the median nerve passes down the inside of the upper arm, the inside of the elbow joint and down the inside of the forearm to the palm of the hand. It supplies the flexor muscles of the wrist and fingers and is therefore the most likely nerve root to be involved in golfer's elbow.

Potential causes of Golfer's Elbow and Advice to prevent it

Overuse of the muscles and tendons of the forearm and elbow are the most common reason people develop golfer's elbow. Repeating some types of activities over and over again can put too much strain on

the elbow tendons. These activities are not necessarily high level sports competition. It can be associated with certain types of gripping such as using tools and other work related activities such as not letting go of your mouse when you're not using it. Shovelling, gardening, and hammering nails can all cause the pain of golfer's elbow. Swimmers who try to pick up speed by powering their arm through the water can also strain the flexor tendon at the elbow.

In both golf and other activities it may be associated with playing the game after a long break or doing unaccustomed activity such as a lot of DIY and over gripping. It may be due to a golf club being too heavy or a poor action.

ACTIVITY

- Where possible, try to avoid the repetitive activity
- If avoidance is not possible, break the repetitive task down into shorter sessions and intersperse them with tasks / activities that rest the forearm muscles (this is called pacing)
- Reduce the load i.e., use a lighter hammer or golf club or type with less force
- Position the task and the arm in the most advantageous position - where less effort is required from the forearm muscles and they are working in their mid-range (not fully bent or extended)
- Work on technique – e.g. golf stance and swing, reducing force when typing, let go of your mouse / gear stick when not using them
- Do not undertake multiple activities that load the forearm on the same day e.g. DIY, followed by a game of golf to relax
- After a significant break from your usual level of activity, graduate or phase your return over a sensible period of time
- Graduate or pace an unaccustomed activity

OVER GRIPPING

- Where possible, try to avoid over gripping, ensure that you let go of your mouse / gearstick when not using them
- Try to ensure that you have the right tools for the job (they are correctly maintained) and they fit you
 - » Correct / alter grip during activity
 - » Correct grip size on a racket, mouse is not too small for the hand size
 - » Grip surface is not slippery
 - » No additional friction or stiffness in controls
- Ensure that you use the right tools for the job
 - » Hoists for lifting
 - » Trolleys for carrying
 - » Spanners / wrenches / electronic screwdrivers for loosening and tightening
 - » Loppers instead of secateurs for larger stems
- Avoid serial multitasking with equipment e.g. use your mouse just to position the cursor on the screen and click to change texts or numbers, do not try to use it as a 'pen' to trace around the outside of pictures on the screen (combining clicking, gripping and manipulation of the mouse itself all at the same time!)

NECK CONDITION

- If you also have a feeling of pins and needles and your grip is particularly weak this may indicate that there is a nerve root from the neck that is pinched. Please seek advice from a Physiotherapist.

Symptoms of Golfer's Elbow

The main symptom of golfer's elbow is tenderness and pain at the medial epicondyle of the elbow. Pain usually starts at the medial epicondyle and may spread down the forearm. Bending your wrist, twisting your forearm down, or grasping objects can make the pain worse. You may feel less strength when grasping items or squeezing your hand into a fist.

Some common symptoms are pain when bending your arm or when lift objects such as a pen or when twisting your forearm such as turning a door handle or opening a jar. Some people experience a feeling of stiffness or pain when straightening your elbow

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Aiding Recovery with a Home Exercise Programme

The healing of Golfer's Elbow is often slow when compared to other injuries. This is mainly due to its poor blood supply. The body's tissues need a good supply of the oxygen and nutrients carried in the blood to repair. Activities such as ice, heat, massage and gentle stretching of the forearm and wrist help to promote blood flow. In order to reverse the degenerative aspect of Golfer's Elbow, rehabilitation needs to include loading and strengthening of the tendon at the appropriate time, alongside stretching.



Self Help Treatment Advice

- Application of ice to the area to ease pain and reduce spasm. It is advised to apply ice in the form of crushed ice cubes, frozen peas or an ice pack. DO NOT apply directly to your skin, oil can be applied to the skin to protect the area. All of these are to be wrapped in a damp tea towel and applied to the elbow for approximately 15 minutes. It is advised that you check the skin every 5 minutes to avoid the possibility of an ice burn from the cold temperature.
- Self-massage of the tendon and the forearm. This may be painful initially but will increase the blood flow and help healing of the tendon and should become easier as you go. Remember to give yourself time with the massage as the tissue needs time to relax and let go as you massage the knots away. This could be done while at lunch or sitting during a tea break at work or watching a favourite programme at home. Gentle heat on the forearm (10 -20 minutes) will also help to relax it and increase the blood flow. When using heat, this should be a mild heat and never feel hot.
- Self-massage of the topside of the forearm. This area contains the forearm extensors - muscles that oppose the forearm flexors that you have just massaged (above bullet point). If the forearm flexors are tight, they can cause these muscles to tighten too; therefore can affect healing if not kept supple. Use the same guidance as above.
- Medication can be used to help control pain. The oral forms of these medications are easy to take and manage to control the pain associated with Golfer's Elbow. Please seek advice from your GP or Pharmacist.
- Maintain elbow range of movement with full bending and straightening of the elbow, especially when getting out of bed in the morning or after sitting with it in one position for long periods.
- Maintain wrist range of movement with full bending and extending of the wrist and turning the palm of your hand to face the ceiling and then to the floor (supination and pronation) - especially when getting out of bed in the morning or after sitting with it in one position for long periods.
- Relative rest, especially from gripping or repetitive exercise involving the wrist and forearm (see above prevention section). This may include modifying your work duties for a determined period of time (with the agreement of your manager) to include a reduction of the aggravating activities, pacing, use of correct and properly maintained equipment and workstation and activity assessment by Occupational Health.
- Take regular breaks (see above bullet point) and stretch while at work, also avoid heavy or power handshakes!
- If you also have a feeling of pins and needles and your grip is particularly weak this may indicate that there is a nerve root from the neck that is pinched. Please seek advice from a Physiotherapist who will check your posture and mobility of the joints in your neck and upper back, shoulder and arm. If the nerve is being pinched in the neck it would require specific neck treatment to the joints and stretches to maintain mobility in both the muscles and the nerves

Good Posture

Improving your posture whilst sitting at your desk will optimise the position of your neck joints and also the position of your forearms at the desk. This limits the chance of irritation to the nerves at your neck and also reduces the strain on the muscles in your forearm.

The secret of sitting correctly is to encourage the spine to lengthen into its neutral 'balanced' position. The pelvis should tilt forwards (slightly) allowing the spine to hold its natural 'S' shape. This means that weight is evenly distributed across the intervertebral discs and there is better balance in the supporting musculature. Get your lower back into a good position and your neck will automatically follow!

Good sitting positions

Sit well back into the chair to maintain support of the spine / pelvis (do not perch on the front of the seat).

Tilt the seat pan forwards (if possible, or flat with a small wedge to create a slight forward tilt) this rotates the top of the pelvis so the spine is in its natural 'S' shape (as seen from the side – this is the postural opposite to the 'C' shape which is to be avoided).

Adjust chair height so that hip is slightly higher than the knee.

Adjust the chair back so that it supports your lumbar curve – so that you can relax into it and maintain the 'S' shape.

You should now be sat in a balanced upright posture with your ear in line with your shoulder and hip (side view) – do not slouch into a 'C' shape.

Move your chair close to the desk to avoid stretching your arms or leaning your upper body forward, you should be able to undertake your task with your elbows resting by your waist, bent to 90 degrees.

Stretching and strengthening exercises

Stretches are important to keep the muscles and tendon mobile and flexible and promotes good blood flow to aid healing.

Please discuss with your Physiotherapist which exercises are right for you. The type, duration and frequency of the exercises will depend on the structure and grade of your injury and where you are in the recovery phase.

Please remember to use this advice under the guidance of your Physiotherapist.

To find out even more about elbow problems,
visit the 'Know Your Body' section of our site.

www.physiotherapyinleeds.co.uk/body-parts/elbow