

## Elbow - common causes of pain

Overuse or repeated pressure on the elbow joint can cause small tears to form in the soft tissue, particularly where the tendon anchors to bone. If a number of these tears occur over a period of time, they can cause pain and reduced movement of the elbow joint. Depending on the location and severity of the injury, full recovery can take up to six months.

The most common type of elbow pain is known as 'tennis elbow'. 'Golfer's elbow' is a less common but similar overuse injury. Despite their names, these injuries can occur as a result of a range of physical activities – racquet sports, rowing, canoeing, weightlifting, hockey, wrestling, swimming – as well as repetitive work tasks undertaken in a variety of occupations.

### The elbow joint

If you bend your arm, you can feel three bumps at your elbow joint. Injury to the tendons that anchor muscles to the two bumps on either side of the elbow are a common cause of elbow pain:

- **Lateral epicondyle ('tennis elbow')** – the bump on the outer side of the elbow. The muscles on the back of your forearm, responsible for curling your wrist backwards, are anchored to this bony point. Pain in this bump is called lateral epicondylitis. This area is particularly susceptible to tennis elbow because it has a poor blood supply.
- **Medial epicondyle ('golfer's elbow')** – the bump on the inner side of the elbow. The muscles on the front of your forearm, responsible for curling your wrist up, are anchored to this bony point. Pain in this bump is called medial epicondylitis.

### Symptoms

Some of the symptoms of elbow pain include:

- Pain in the elbow joint, especially when straightening the arm
- Dull ache when at rest
- Pain when making a fist (medial epicondylitis)
- Pain when opening the fingers (lateral epicondylitis)
- Soreness around the affected elbow bump
- Weak grip
- Difficulties and pain when trying to grasp objects, especially with the arm stretched out.

### A range of causes

Some of the many conditions and events that may contribute to elbow injuries include:

- Lack of strength or flexibility in the forearm muscles
- Lack of strength in the shoulder muscles
- Instability of the elbow joint
- Poor technique during sporting activities (especially tennis and golf) that puts too much strain on the elbow joint
- Inappropriate sporting equipment, such as using a heavy tennis racquet or having the wrong sized grip on a tennis racquet or golf club
- Repetitive movements of the hands and arms, such as working on an assembly line
- Continuously making the muscles and joint take heavy loads
- Other factors such as neck symptoms or nerve irritation.

### First aid

Suggestions for first aid to elbow injuries include:

- Stop whatever you are doing.
- Rest your elbow for a few days.

- Use icepacks every two hours, applied for 15 minutes.
- Massage and stretch the muscles after 48 hours to relieve stress and tension.
- See your doctor or physiotherapist for diagnosis and further treatment, if necessary.

### Medical treatment

If the symptoms don't improve, or if you are prone to recurring bouts of elbow pain, see your doctor or physiotherapist. Treatment options may include:

- Soft tissue massage
- Ice massage
- Acupuncture
- Joint mobilisation
- Flexibility and strengthening exercises prescribed by your physiotherapist
- Tape
- Anti-inflammatory medication
- Electrotherapy modalities
- Corticosteroid injections
- Pain-killing drugs
- Bracing
- Surgery, in severe cases.

### Flexibility and strengthening exercises

Some of the exercises suggested by your doctor or physiotherapist may include:

- Stand facing a wall with your arms stretched out straight in front of you at shoulder height, palms facing upwards. Bend your wrists so you can place your palms on the wall until you feel a stretch in your forearm, but no pain. Hold for 10 seconds, relax and repeat five times.
- Hold a stick horizontally with both hands and curl the wrists up and down, once again maintaining each position for around 10 seconds.
- Squeeze and release a small firm ball, such as a tennis ball, with your arm stretched out straight in front of you.

### Prevention strategies

Ways to reduce the risk of elbow injury include:

- Always warm up and cool down thoroughly when playing sport.
- Make sure you use good technique and proper equipment when playing your chosen sports.
- Do strengthening exercises with hand weights – your physiotherapist can prescribe the correct exercises for you.
- Regularly stretch relevant muscles before beginning any potentially stressful activity. Your physiotherapist can prescribe the correct exercises for you.
- Avoid or modify work tasks that put excessive pressure on muscles of the forearm or that include the use of fingers, wrists and forearms in repetitive work involving forceful movement, awkward postures and lack of rest.

### Other causes of elbow pain

While overuse injuries such as tennis and golfer's elbow are common causes of elbow pain, other conditions can include:

- **Radiohumeral bursitis** – bursitis is inflammation of a bursa. Bursae are small sacs that contain fluid to lubricate moving parts such as joints, muscles and tendons. Bursitis may be caused by repetitive use or frequent pressure or by injury to the elbow.
- **Osteoarthritis** – the joint cartilage becomes brittle and splits. Some pieces of cartilage may even break away and float around inside the synovial fluid. This can lead to inflammation.
- **Referred pain** – injuries to the bones of the spine (vertebrae) can irritate the nerves servicing the arm and cause referred pain around the elbow joint.
- **Nerve entrapment** – the radial nerve is the main nerve of the arm. If this nerve can't move freely, it can cause pain when the arm is stretched out. The radial nerve can be pinched by vertebrae or the elbow joint. There is evidence to suggest that nerve entrapment contributes to the pain of tennis elbow in some cases.

- **Ligament sprain** – joints are held together and supported by tough bands of connective tissue called ligaments. A sprain is a type of joint injury characterised by tearing of the ligaments.
- **Bone fracture** – a heavy fall or blow to the elbow may cause one of the bones to break or crack.
- **Avulsion fracture** – a powerful muscle contraction can wrench the tendon free and pull out pieces of bone.
- **Osteochondritis dissecans** – in younger people, a piece of cartilage and bone can become loose in the joint.

### Where to get help

- Your doctor
- Sports physician
- Physiotherapist
- Australian Physiotherapy Association Tel. (03) 9534 9400

### Things to remember

- The most common type of elbow pain is known as 'tennis elbow'. 'Golfer's elbow' is a similar overuse injury.
- First aid suggestions include rest and frequent applications of ice. In some cases, taping the elbow and forearm can help.
- If the symptoms don't improve, or if you are prone to recurring bouts of elbow pain, see your doctor or physiotherapist.
- Other causes of elbow pain include bone fractures, bursitis and nerve entrapment.

**This page has been produced in consultation with, and approved by:**

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