



CONDITION

# What is Elbow Stiffness?

*Elbow stiffness means a loss of the some of the normal range of motion of the joint. This occurs most commonly with arthritis or after an injury.*

## *What is normal elbow movement?*

Normally the elbow moves from fully straight (0° of flexion) to fully bent (about 140° of flexion). In addition the elbow contributes to forearm rotation. This is variable from person to person with men tending to have less rotation than women. Most people can rotate the forearm to have the palm flat up towards the ceiling (supination) and flat down toward the floor (pronation).

Patients who have lost more than 30° of their normal arc of flexion will notice some activities are more difficult than before. A loss of supination is more of a nuisance than a loss of pronation.

## *What causes elbow stiffness?*

Osteoarthritis is the commonest cause of elbow stiffness. This occurs frequently in men in their 50's, often following a career of heavy work.

Elbow stiffness can also occur after an injury to the elbow, particularly if the injury involved the joint surface or a prolonged period of immobilisation.

The restriction in movement can be caused by extra pieces of bone growing up around the joint and blocking movement. More commonly, however, it is the soft tissue envelope (the capsule) around the joint that has scarred and constricted over time. This tight capsule then limits how much movement the joint can achieve.

## *What are the signs and symptoms?*

Apart from not being able to move the joint well arthritic symptoms are common with variable amounts of pain and swelling.

Symptoms of locking and loose bodies within the joint can also occur (see 'Elbow Locking').

## *How is the diagnosis confirmed?*

An examination will show how stiff the joint is. An x-ray is usually enough to demonstrate what the cause is but occasionally more complex imaging is required such as computerised tomography (CT) and magnetic resonance imaging (MRI).

## *What is the treatment?*

Prevention is the best cure for this condition. After elbow injuries it is important to get the elbow moving as soon as possible to avoid the capsule becoming tight and limiting movement. Exercises and stretches are important in this regard and should always be tried before any surgery.

Once the joint is stiff the next step is to work out what is making the joint stiff and how much of an issue the stiffness is to the individual in their day to day lives.

If loose bodies are the main problem it might be possible to remove those with a small operation (see 'Elbow Locking').

If there is generalised arthritis and/or a tight capsule around the elbow surgery is much more invasive, takes a long time to get over and does not have guaranteed results (see 'Elbow Arthrolysis'). As a result most surgeons only undertake this surgery after considerable discussion with the individual.