Midlands Orthopaedic Centre

Trauma & Orthopaedics

Subacromial Impingement of Shoulder

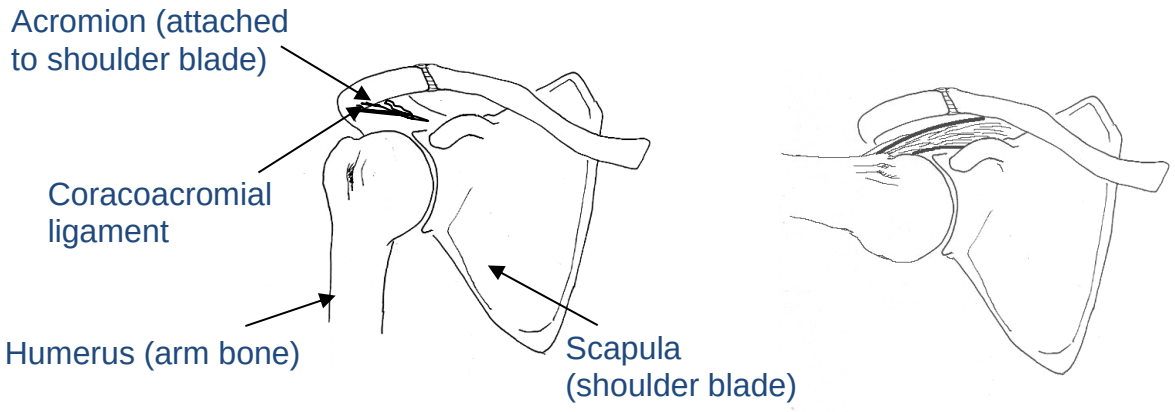
Patient Information Leaflet

NHS
The Dudley Group
NHS Foundation Trust

Introduction

About your shoulder

The shoulder is a ball and socket joint formed by a ball at the top of your arm bone and a socket which is part of the shoulder blade.



Above the ball and socket joint is a prominence of the shoulder blade called the acromion. A ligament, called the coracoacromial ligament, attaches to this bony prominence. Together, this forms an arch, and the space between the arch and the joint is called the subacromial space.

A group of muscles called the rotator cuff moves and controls the position of the ball on the socket. These muscles attach from the shoulder blade on to the top of the arm bone passing through the subacromial space. A small fluid filled lining (bursa) cushions the tendon from the roof of the arch.

When you move your arm away from your side, the subacromial space is narrowed (picture on right).

What is impingement?

The rotator cuff tendon appears to be vulnerable to damage or degeneration (wear and tear), particularly in the subacromial space. Unfortunately, this is more likely as we get older.

The damage can range from inflammation, to tears in the tendon. We do not know why some people are susceptible to these problems. Sometimes, there is a precipitating event that makes the shoulder painful. For example, over-use, or a new (overhead) arm activity, such as DIY, hedge trimming in the garden or carrying luggage.

Once the tendon becomes affected, it swells, causing more narrowing of the subacromial space. This leads to the tendon and the bursa becoming “pinched” under the arch. Sometimes, small calcium deposits are formed in the tendon as a result of the inflammation.

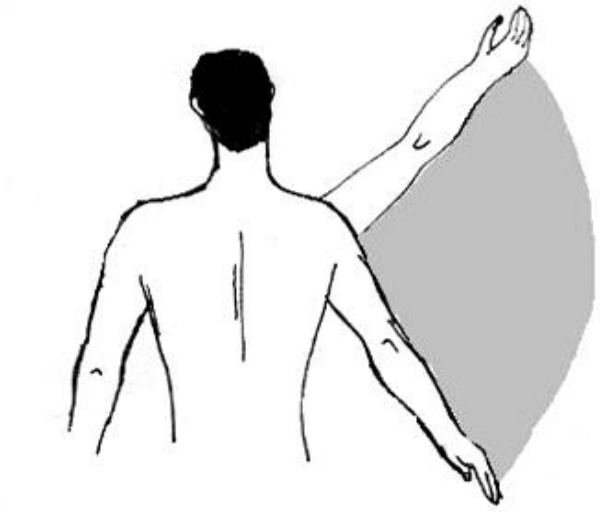
Tears in the tendon can occur from sudden events such as falling, but more commonly they are caused gradually by a wear and tear effect on the tendon. This is partially age related but may result from impingement. The tears can be partial or full thickness.

How common is it?

It is extremely common. It is the most common problem in the shoulder, and 20 per cent of people will have it at some time in their lives.

What are the symptoms?

The main complaint is one of pain, often felt on the outside of the upper arm. The classical presentation is of a “painful arc”, when the arm is moved out to the side and up to the ear (see diagram). This corresponds with the narrowing of the subacromial space. When the inflammation is active, you may experience pain at night, or when your arm is resting.



Painful arc

What tests may be done?

The main way we diagnose subacromial impingement is from your symptoms and by examining your shoulder. An X-ray will be taken, although this will only show bones and does not show muscle inflammation or wear and tear. You may be sent for an ultrasound scan or a magnetic resonance imaging (MRI) scan. Both show tendons of the rotator cuff and can highlight if they are torn.

What are the treatment options?

Treatment is usually started with non-surgical methods. A small proportion of people need an operation, when the shoulder has not responded to the non-surgical methods of treatment.

Non-surgical treatments (conservative treatment)

Physiotherapy

An assessment of your shoulder will be done, and from this a programme of exercises will be given to you. These may include exercises to strengthen the muscles around your shoulder blade, improve your posture, stretching exercises and/or strengthening your rotator cuff.

Injections

These are given into the subacromial space aiming for the bursa, not the tendon itself. Usually, a mixture of local anaesthetic and steroid is given. Injections can be effective, but may increase the pain for the first 24 hours. Doctors will generally not want to give more than three injections in a year. If the symptoms keep returning, other treatments may be necessary.

What you can do – "self-help ideas"

- If possible, stop the activity that causes the pain, or find a different way of doing it.
- Try some shoulder blade exercises. Think about your posture – try and gently square your shoulder blades, keeping your elbows still.
- If you are involved in a sport/profession using repetitive movements, seek advice on your technique. A physiotherapist may be able to give you advice on your movement patterns as well as appropriate stretching and progressive strengthening exercises.
- Try to break the pain cycle – by using methods such as pain medication, non-steroidal anti-inflammatory tablets, or cream. Always check with your doctor or chemist that you have no allergies or conditions that are influenced by these drugs.

If you have not tried some of the ideas listed above, it is worth doing so now.

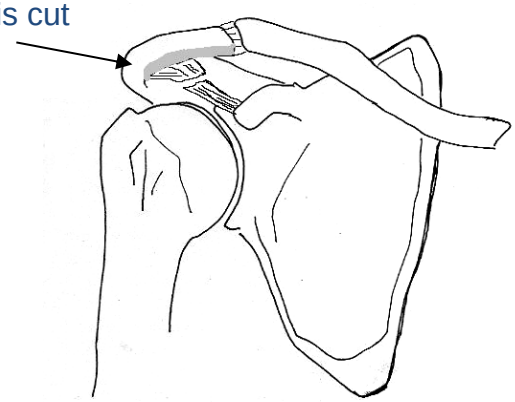
Surgical treatment

If your symptoms do not settle with the above measures, then an operation may be suggested.

The operation done most frequently is a subacromial decompression (SAD). This is done by keyhole surgery (arthroscopy). This is usually done as a day procedure.

The operation involves cutting the ligament and shaving away part of the prominence on the underside of the acromion bone. This aims to increase the subacromial space. This allows the tendon to move more freely and breaks the cycle of impingement and inflammation.

Shaded area of acromion is shaved and the ligament is cut



If the rotator cuff tendon is torn, the surgeon may be able to repair it. According to a recent study, the exact mechanism by which arthroscopic subacromial decompression (ASAD) surgery provides improvement is now uncertain. The trial also demonstrates that some patients can improve without surgery. The British Orthopaedic Association (BOA) recommends careful patient selection and informed shared decision making for ASAD in this patient group. Rehabilitation after tendon repair is longer than after the decompression operation alone.

What are the risks?

All operations involve an element of risk. We do not want to overemphasise them, but feel that you should be aware of them before and after your operation. The risks include:

a) Infection: these are usually superficial wound problems. Occasionally, deep infection may occur many months after the operation (less than one per cent).
b) Persistent pain or stiffness around the shoulder. Five to 20 per cent of patients will still have these symptoms after the operation.
c) Damage to the nerves and blood vessels around the shoulder (less than one per cent).
d) A need to re-do the surgery is rare. In less than five per cent of cases, further surgery is needed within 10 years.
e) Complications related to the anaesthetic, such as sickness, nausea or rarely cardiac, respiratory or neurological (less than one per cent).

Will it be painful?

Although you will only have keyhole incisions, the procedure can be painful due to the surgery performed inside your shoulder. Sometimes, a nerve block will be given around the nerves in the shoulder. This means that your arm will feel numb when you awake from the anaesthetic, and this will last for several hours. When you begin to feel the sensation returning, you should start taking the pain medication that you have been given.

Do I need to wear a sling?

The sling is for comfort only. Take it off as often as you wish. Normally, it is discarded after a few days.

Will I need to do exercises?

Yes. You will be shown exercises by the physiotherapist and you will need to continue doing exercises after you go home. This is to stop your shoulder getting stiff.

What do I do about the wound?

You will not have any stitches, only small sticking plaster strips covering the wounds. You will have an absorbent pad to keep the shoulder area dry. Usually, the wound dressings will be removed at your GP surgery at around 10 to 12 days, by which time the wounds will have healed. You can wash and shower or use ice packs, but remember to protect the wounds with cling film or a plastic bag.

When do I return to the clinic?

This is usually arranged for approximately eight weeks after your operation to check on your progress. Further clinic visits may be arranged after this as necessary.

Are there things that I should avoid?

There are no restrictions (other than pain) to movement. Do not be frightened to start moving the arm as soon as possible, and move as often as you can. Gradually, the movements will become less painful.

- Avoid heavy lifting for at least four weeks.
- Avoid overactivity or overdoing your exercises, and keep your arm out of positions that increase the pain.

How am I likely to progress?

You should be able to move your arm comfortably below shoulder height by four weeks and above shoulder height by six weeks.

Normally, the operation is done to relieve pain from your shoulder, and this usually happens within six months for 80 per cent to 90 per cent of people. There may be improvements for up to one year.

When can I drive?

You can drive as soon as you feel able. This is normally within two to three weeks. Check that you can manage all controls.

When can I return to work?

This will depend on the type of work you do. If you have a job involving arm movements close to your body, you may be able to return within two weeks. Most people return to work in a month.

When can I start my leisure activities?

Your ability to start these activities will depend on pain, range of movement and the strength that you have in your shoulder. Nothing is forbidden, but it is advisable to start with short sessions involving little effort, and then gradually increase the effort or time for the activity. Sustained or powerful overhead activities may take longer to become comfortable.

Exercises

- Use painkillers and/or ice packs to reduce the pain before you exercise if necessary.
- Do short frequent sessions (e.g. five to 10 minutes, four times a day) rather than one long session.
- It is normal for you to feel aching, discomfort or stretching sensations when you do these exercises. However, intense and lasting pain (e.g. more than 30 minutes) is an indication to change the exercise by doing it less forcefully or less often.

Further information

Orthopaedic and Fracture Clinic: 01384 456111 ext. 2220 (Monday to Friday)

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http://www.midlandsorthopaediccentre.co.uk/

Please visit our YouTube channel to access some of our fracture patient information videos

Are you following the MOC LinkedIn page?

This leaflet can be downloaded or printed from:

http://dgft.nhs.uk/services-and-wards/trauma-and-orthopaedics/

If you have any feedback on this patient information leaflet, please email dgft.patient.information@nhs.net

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