

Shoulder arthritis and joint replacement



What is shoulder arthritis?

Arthritis is a term used to describe several conditions that lead to joint damage. Osteoarthritis (OA) is the most common type overall, and the type that most often affects the shoulder.

Shoulder arthritis mainly affects the ball and socket joint (called the glenohumeral joint) that connects your upper arm with your shoulder blade. This is the most flexible joint in your body and allows you to move your arm in several directions. It can also affect the smaller joint connecting your collarbone to your shoulder blade (known as the acromioclavicular joint), which doesn't provide much movement.

Shoulder arthritis can cause pain around your shoulder, upper arm, and sometimes towards your neck. This will typically occur with certain movements, such as raising your arm overhead, lifting heavy objects or trying to reach behind your back. It might be painful to lie on the affected side. You might also experience stiffness and/or swelling of the joint.

If symptoms become severe, they can adversely affect your arm function, sleep and ability to perform everyday activities. In turn, this can impact your independence and quality of life.

What causes shoulder arthritis?

There is no single cause of arthritis, but OA is the most common. You may be at greater risk of shoulder arthritis if you've had recurrent shoulder dislocations, large rotator cuff tears, or a shoulder fracture.

Healthy joints have a protective cartilage covering over their bony ends. They are also surrounded by a protective membrane (called the synovial membrane) and bathed in lubricating fluid (called synovial fluid). This allows joint surfaces to glide over each other, giving you smooth, pain-free movement.

OA leads to wear of the cartilage covering, a reduction in synovial fluid, and joint inflammation. It can also cause bony spurs to form around the joint. In the earlier stages of the condition, your body can usually repair these tissue changes. As it progresses, however, your repair systems can't keep up – leading to damage.

Shoulder problems can also be associated with rheumatoid arthritis (RA) – a chronic inflammatory condition which affects your immune system. RA will typically affect both shoulders.

How is shoulder arthritis diagnosed?

To determine what's causing your symptoms, your health professional will take a thorough medical history and ask how symptoms are impacting your daily life. They will examine your shoulder joint, looking at things like range of movement, posture, tenderness and muscle strength.

You will probably have an X-ray, which may show degenerative changes in your shoulder. It's important to note, however, that X-ray changes don't necessarily correspond well to symptoms. It's possible to have severe structural changes on X-ray but experience little pain, and vice-versa. Your doctor may also recommend other tests, such as an MRI, or blood tests to check for an inflammatory or immune condition.

Treatment

Treatment for shoulder arthritis aims to help you successfully manage pain and get you back to your usual activities. Most people with shoulder arthritis won't need surgery. Non-operative treatments can help you stay on top of symptoms and support improved function. These include:

Activity modification – relief can be gained through modifying how you perform everyday activities. Frequently, you can learn to do what you need to in ways that don't flare up your symptoms. For example, if pegging washing on a clothes line is difficult, you can use a floor-level ailer instead.

Exercise – it's important to keep your shoulder moving and to maintain as much strength as possible. Your doctor, physio or exercise physiologist may give you exercises to complete at home.

Medicines – depending on your general health and the type of arthritis you have, your doctor may prescribe medications (or possibly injections into the shoulder joint) to help reduce pain and inflammation.

Physiotherapy – physio can help with reducing pain and improving movement. Treatment is likely to involve exercises to strengthen shoulder muscles, increase flexibility, and improve your posture. Physios may use hands-on techniques like joint mobilisation and massage, plus things like heat and cold for symptom relief. A physio can teach you easier ways to perform daily activities. For example, they can teach you pain-free ways to dress and sleep.



When is surgery recommended?

Surgery may be advised if shoulder arthritis is significantly affecting your function and/or quality of life and your symptoms have not responded to conservative treatments. You will also need to be healthy enough and willing to have an operation.

Your surgeon will discuss the benefits and risks of surgery, and provide advice based on your symptoms and circumstances.

Types of surgery

Joint replacement surgery (arthroplasty)

Total shoulder replacement (TSR) surgery involves removing and replacing the affected shoulder joint with an artificial one. It aims to give you pain relief and improve movement, so you can be more independent and get back to your usual activities. There are a few ways this surgery is done.

Anatomic TSR

In this type of TSR, the damaged ball and socket are replaced in their usual anatomical position. That is, the ball part (usually made of metal) is attached at the upper end of your arm. The socket (usually made of plastic) is fitted into the shoulder blade.

Reverse TSR

This type of surgery may be recommended if you have significant damage to your rotator cuff muscles. It involves replacing the damaged joint structures in the opposite way to their usual position. In other words, the plastic cup is fitted to the upper end of the arm, and the metal ball is fitted into the shoulder blade socket. This allows other muscles to take over shoulder movement in place of the damaged cuff muscles.

Hemiarthroplasty

This involves replacing only the damaged ball at the upper end of your arm.

Resection arthroplasty

This procedure may be recommended if you have arthritis of the acromioclavicular joint. It involves removing a small amount of bone from the end of your collarbone.

Recovery

Your recovery will depend on the type of surgery you have. Typically, it will involve:

- Pain relief – it's important to keep pain well-controlled, so be sure to ask for pain medication before your shoulder becomes too uncomfortable.
- Other medications – antibiotics to reduce the risk of infection and anticoagulants to reduce the risk of developing a blood clot.
- Joint protection – you may need to keep your arm in a sling for up to two weeks to protect the healing tissues.
- Ice packs to relieve postoperative swelling.
- A shoulder X-ray and a blood test.
- Help with self-care tasks such as showering, dressing and using the toilet, with assistance gradually reducing as you become more independent.
- Physiotherapy to help get you mobile and start your postoperative exercise program.
- Review with your surgeon.

Once your healthcare team feel confident you are well and independent enough, you will be discharged.

Rehabilitation

Rehabilitation is vital for getting the best results following surgery. How it looks will depend on your operation and needs, but will usually involve:

- Exercises to improve your range of movement, strength, upper limb control and cardiovascular fitness.
- Management of pain and swelling.
- Training in functional tasks, such as reaching, lifting and activities of daily living (such as preparing meals and self-care tasks).
- Support and advice for returning to your usual activities, such as work and driving.

Your rehabilitation may be supported by allied health professionals including physiotherapists and occupational therapists.

References

- Arthritis Australia. Shoulders. <https://arthritisaustralia.com.au/what-is-arthritis/areas-of-the-body/shoulders/> Accessed 28.7.2021.
- Arthritis Foundation. Osteoarthritis of the Shoulder. <https://www.arthritis.org/diseases/more-about/osteoarthritis-of-the-shoulder> Accessed 28.7.2021.
- American Academy of Orthopaedic Surgeons. Arthritis of the Shoulder. <https://orthoinfo.aaos.org/en/diseases--conditions/arthritis-of-the-shoulder> Accessed 28.7.2021.
- The American Society for Surgery of the Hand. Shoulder Arthritis. <https://www.assh.org/handcare/condition/shoulder-arthritis> Accessed 28.7.2021.
- Healthdirect.gov.au. Total shoulder replacement. <https://www.healthdirect.gov.au/surgery/total-shoulder-replacement> Accessed 28.7.2021.
- American Physical Therapy Association. Physical Therapy Guide to Osteoarthritis of the Shoulder. <https://www.choosept.com/symptomsconditionsdetail/physical-therapy-guide-to-osteoarthritis-of-shoulder> Accessed 28.7.2021.
- Mr Harry Clitherow, Orthopaedic Surgeon and Upper Limb Specialist. Shoulder Arthritis. Please enquire for details.