PROCEDURE

Rotator cuff repair

Rotator cuff repair is surgery to reattach a torn shoulder tendon to the upper arm bone.

PURPOSE
Reattach a torn tendon and improve shoulder function

PROCEDURE TYPE
Therapeutic surgery, usually minimally invasive arthroscopy

WHERE IT IS DONE
Operating theatre

ANAESTHESIA
General, often with a regional nerve block

HOW LONG IT TAKES
Usually 1-2 hours

PREPARATION
Fasting, medicine review, transport and home support

RECOVERY
Usually same day; no driving until safely cleared

MAIN RISKS
Infection, stiffness, nerve injury, tendon re-tear

RESULTS
Repair assessed immediately; healing and function over months

Overview

The rotator cuff is a group of muscles and tendons that holds the upper arm bone in the shoulder socket. It helps you lift and rotate your arm.

A rotator cuff repair is surgery to reattach a torn tendon to the bone. Most repairs are performed through several small cuts using an arthroscope, a narrow camera placed inside the shoulder. This is called arthroscopic or keyhole surgery. Some tears require a larger open cut or a combination of techniques.

During surgery, the tendon is usually secured to the bone with small anchors and strong stitches. The repair then needs time to heal. Surgery is only one part of treatment; rehabilitation and physiotherapy are essential for restoring movement and strength.

Why the procedure is performed

Rotator cuff repair may be offered when a tendon tear causes ongoing pain, weakness or loss of function. The aim is to reduce pain and help the shoulder work better, although surgery cannot guarantee full strength or movement.

Reasons for considering repair include:

Your scan findings are considered alongside your symptoms, examination, health, activities and treatment goals. A tear seen on a scan does not automatically need surgery.

- A recent tear caused by an injury, especially with marked weakness
- A full-thickness tear, meaning the tendon is torn all the way through
- Symptoms that continue despite physiotherapy and other non-surgical care
- Shoulder weakness that interferes with work, sleep, sport or daily activities
- A tear that may become harder to repair if treatment is delayed

Who should and should not have it

You may be a suitable candidate if the tendon can be repaired, your symptoms affect daily life, and you are able to complete the rehabilitation program. Your surgeon will discuss the tear's size, age and tissue quality, as these can affect healing.

Repair may not be the right option when a tear causes little difficulty or improves with non-surgical treatment. Very large or long-standing tears may be impossible to bring back to the bone. Severe shoulder arthritis, major muscle wasting or poor tendon quality may make another operation more suitable.

Surgery may be delayed if you have an active infection, an uncontrolled medical condition or skin problems near the shoulder. Smoking and poorly controlled diabetes can interfere with wound and tendon healing, so risk reduction may be discussed before surgery.

You also need to be able to protect the repair and attend rehabilitation. If using a sling or following movement restrictions would be unsafe or impractical, your team may recommend more support or a different treatment plan.

How to prepare

Your treating facility's own instructions take priority because fasting, medicines and arrival

arrangements differ between hospitals.

Tell the surgical and anaesthetic teams about all medicines, supplements, allergies and previous problems with anaesthesia. Blood-thinning medicines may need special planning. Do not stop them unless the clinician responsible for your procedure tells you to do so.

You will usually be told when to stop eating and drinking before surgery. Following these instructions reduces the risk of stomach contents entering your lungs during anaesthesia.

Arrange for someone to take you home. You may also need help with meals, dressing, bathing, shopping and childcare while one arm is in a sling. Loose, front-opening clothing is often easiest after surgery.

Ask whether you should bring your sling or whether one will be supplied. Preparing easy meals and placing commonly used items within reach can make the first few days easier.

What happens during the procedure

Most people have a general anaesthetic and are asleep. A regional nerve block may also be used. This temporarily numbs the shoulder and arm to improve pain control after surgery.

The surgeon makes small cuts around the shoulder and inserts the arthroscope. Sterile fluid expands the joint so the tissues can be seen. The tear is examined, and damaged or inflamed tissue may be cleared away.

The surgeon prepares a small area of bone where the tendon will be reattached. Anchors are placed in the bone, and stitches from the anchors are passed through the tendon. The stitches pull the tendon back into position while it heals to the bone.

Other problems may be treated during the same operation. For example, the surgeon may treat an injured biceps tendon or remove inflamed tissue. Additional procedures should be discussed with you during consent.

The cuts are closed and covered with dressings. Your arm is placed in a sling before you leave the operating area.

Recovery and what to expect afterward

Pain is expected, especially during the first few days. A nerve block can make the arm feel heavy or numb for several hours. Take pain medicine as instructed before the block fully wears off. Ice may help if your team approves it and you protect your skin and dressings.

You can usually eat and drink once you are awake and not feeling sick. Start with light food if

anaesthesia has upset your stomach.

Most people go home on the day of surgery. You will usually wear a sling for several weeks, but the exact period reflects the tear and repair. Follow instructions about sleeping, washing and permitted hand, wrist and elbow movement.

Physiotherapy normally progresses in stages. Early exercises protect the repair while limiting stiffness. Active shoulder movement and strengthening begin later. Doing too much too soon can damage the repair, while avoiding approved exercises can contribute to stiffness.

Do not drive while your arm is in a sling, while taking medicines that impair alertness, or until you can safely control the vehicle and perform an emergency manoeuvre. Check your surgeon's advice and local driving or insurance rules.

Return to work reflects your job and which shoulder was repaired. Desk work may be possible within days or weeks if pain is controlled and the shoulder remains protected. Heavy lifting, overhead work and manual jobs commonly require several months away or modified duties.

Improvement is gradual. Tendon healing takes months, and strength can continue to improve for up to a year.

Risks and possible complications

Possible risks include:

A re-tear does not always mean symptoms return or that more surgery is needed. Healing is influenced by tear size, tendon quality, age, smoking, diabetes, rehabilitation and further injury.

Your surgeon and anaesthetist can explain the risks most relevant to your health and the planned repair.

- Infection or problems with wound healing
- Shoulder stiffness or loss of movement
- Bleeding, blood clots or complications from anaesthesia
- Temporary or lasting nerve or blood vessel injury
- Ongoing pain, weakness or reduced function
- Failure of the tendon to heal or a later re-tear
- Problems caused by anchors or stitches
- The need for another procedure

Results and follow up

The surgeon can usually confirm at the end of the operation whether the tendon was repaired as planned. This does not immediately show how well it will heal.

Follow-up visits check the wounds, pain, sling use, movement and rehabilitation. Stitches may need removal unless dissolving stitches were used. Routine scans are not always required; they may be arranged if recovery is not progressing as expected or a new injury occurs.

Many people have less pain and better function after healing, but recovery is not immediate. Some weakness, stiffness or discomfort may remain. The final result is usually judged over several months rather than at the first follow-up visit.

Alternatives

Rotator cuff repair is not the only option.

- Activity changes and observation: Avoiding painful movements may be enough for manageable symptoms, but it does not reattach the tendon.
- Physiotherapy: Exercises can improve movement, muscle control and function without surgical recovery. The tear remains, and weakness may continue.
- Pain medicine: Medicines may reduce discomfort but do not repair the tendon. Side effects and other health conditions limit which medicines are suitable.
- Steroid injection: An injection may provide temporary pain relief and support physiotherapy. It does not heal the tear, and repeated injections may affect tendon tissue.
- Debridement or biceps surgery: Removing damaged tissue or treating the biceps tendon may reduce pain when repair is not possible, but it does not restore the torn tendon.
- Reconstructive surgery or tendon transfer: These may help selected people with an irreparable tear, but they are more complex and do not recreate a normal rotator cuff.
- Reverse shoulder replacement: This may be considered for an irreparable tear with severe weakness or arthritis. It replaces the joint and carries the risks and limitations of an artificial shoulder.

When to call your healthcare team

Contact your surgical team during routine hours if you have questions about dressings, sling use, exercises, medicine side effects or a recovery that is not progressing as expected.

Seek urgent same-day advice for increasing redness, warmth or drainage from the wounds; fever; worsening pain not controlled by the agreed plan; marked swelling; or numbness that continues longer than your team said the nerve block should last.

Seek emergency care for trouble breathing, chest pain, fainting, confusion, uncontrolled bleeding, or a hand that becomes cold, blue or suddenly difficult to move.

Common questions

Will I be asleep?

Usually, yes. Most repairs use general anaesthesia. A nerve block may also numb your shoulder and arm for pain relief.

Can I drive home?

No. Someone else must take you home. You should not drive until you are out of the sling, are not impaired by medicine, and can control the vehicle safely.

How painful is rotator cuff repair?

Pain is common during the first days and usually improves gradually. A nerve block, prescribed pain medicine and approved use of ice can help.

When will I know if it worked?

The surgeon knows immediately whether the tendon was reattached. Whether it heals well and improves your function becomes clearer over several months.

How long will I wear a sling?

Often several weeks. The exact time is based on the tear, repair strength and your surgeon's rehabilitation plan.

When can I lift my arm normally?

Movement returns in stages under physiotherapy guidance. Unrestricted lifting usually comes much later than basic movement because the tendon must first heal to the bone.

Sources

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