SHOULDER SURGERY · PATIENT GUIDE

Rotator Cuff Tear: Do You Always Need Surgery?

A torn rotator cuff sounds like something that must be fixed. Often it is not. Here is what the trials actually show, and how a surgeon decides which shoulders need an operation.

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When the scan report lands in a patient's lap and the word "tear" is sitting there in black and white, the assumption is almost automatic. Something is torn, so something must be stitched. I see the relief, and then the worry, cross a patient's face in the same minute: relief that there is finally a name for the pain, worry that an operation is now unavoidable. So let me say the most important thing first, plainly. A rotator cuff tear does not automatically mean you need surgery. For a great many people it does not. But "not always" is not the same as "never," and the whole skill lies in telling those two apart.

The rotator cuff is a set of four flat tendons that wrap over the top of the shoulder and hold the ball of the joint snugly in its socket while your arm lifts, reaches and rotates. When one of those tendons tears, the shoulder can become painful, weak, or both. What surprises most patients is how common these tears are, and how many of them cause no trouble at all.

Most cuff tears are quieter than you would expect

Rotator cuff tears are largely a feature of the ageing tendon, much as grey hair is a feature of the ageing scalp. In a community screening study in Japan where everyone who turned up had an ultrasound of both shoulders, full-thickness tears were found in just over a fifth of people overall, and the rate climbed steadily with age, from essentially none below the age of fifty to more than a third of people in their eighties. Strikingly, about two-thirds of all the tears found caused no symptoms whatsoever. The owners did not know they were there.

I dwell on that figure because it reframes the whole question. If you could line up a hundred people in their seventies and scan every shoulder, you would find a great many tears in people living perfectly active lives, gardening, lifting grandchildren, never once thinking about their shoulders. A tear seen on a scan is therefore not, by itself, a problem that must be repaired. It is a finding that has to be matched against how the shoulder actually behaves and how much it troubles you.

The split that changes everything: degenerative versus traumatic

The single most useful question I ask is not “how big is the tear?” but “how did it happen?” The answer sorts most patients into one of two groups, and the two are treated quite differently.

A **degenerative tear** creeps up on you. There is no single dramatic moment. The tendon, thinned by years of use and a less generous blood supply with age, gives way gradually. The shoulder grumbles, aches at night, and slowly loses some strength. These are the tears that dominate the numbers above, and they are the ones where surgery is most often *not* the first answer.

A **traumatic tear** is different in character. The shoulder was working well, and then a defined event, a fall onto an outstretched hand, a heavy lift, a sudden jerk, tore a tendon that may have been largely healthy until that instant. The arm is often suddenly and genuinely weak. These tears, particularly when they are full-thickness and the patient is younger and active, sit firmly in the group where earlier surgical repair deserves serious consideration.

There is also the matter of depth. A **partial-thickness** tear involves only part of the tendon’s thickness; a **full-thickness** tear goes all the way through. Most partial tears, and many small full-thickness degenerative ones, are managed without surgery in the first instance. The treatment, in other words, is decided not by the word “tear” alone but by the story behind it, the depth, the size, and the person attached to the shoulder.

What the trials actually show for degenerative tears

This is where good research has genuinely sharpened the answer, so let me lay it out honestly rather than from habit.

What the evidence shows

Degenerative tears · trials, a meta-analysis and natural-history data

No clear
difference

in pain and function at 1–2 years between repair and physiotherapy, for small and medium degenerative tears

Reassuring

≈1 in 8

patients managed without surgery later crossed over to a repair, in pooled randomised data

Mostly avoid surgery

≈1 in 2

untreated degenerative tears enlarged over years of follow-up; some muscle then changes

Reason to follow up

Repair, if it
heals

edged ahead with long-term follow-up, but the gains were modest

It depends

Sources: randomised trials, a meta-analysis, and natural-history cohorts, listed at the end.

Several well-conducted randomised trials have compared surgical repair with a structured physiotherapy programme for symptomatic degenerative tears. A Finnish trial randomised patients with non-traumatic supraspinatus tears to physiotherapy alone, to a smoothing of the overlying bone with physiotherapy, or to a full repair with physiotherapy. At two years there was no meaningful difference between the three groups in pain or function, and the authors concluded that conservative treatment is a reasonable first option for these tears in older patients. When the same patients were followed for more than five years, the conclusion held: surgery had not proven superior for these small, single-tendon tears.

A Norwegian trial compared primary tendon repair with physiotherapy (with the option of later surgery if physiotherapy failed) in tears up to three centimetres. The honest nuance here is important. Early on the two groups were very close. But as the researchers followed these patients out to five, ten, and fifteen years, a modest advantage for repair emerged and slowly widened, and in the physiotherapy group the tears tended to enlarge over time. Even so, roughly a quarter to a third of the physiotherapy patients ended up choosing surgery across fifteen years, which means most did not.

Pull these together with a meta-analysis of the randomised evidence and a clear, usable message appears. For degenerative cuff tears, surgery produces, on average, a small additional improvement over good non-surgical care, and only around one in eight conservatively treated patients later crosses over to an operation. The success rate of non-surgical treatment is high enough that a surgeon should be selective, choosing surgery for the patients most likely to gain from it rather than offering it to everyone with a tear.

The honest part

I do not want to oversell physiotherapy any more than I would oversell a scalpel. Two honest caveats sit alongside the reassuring numbers. First, a large independent review of the trials judged that, on the whole, surgery offers little or no clinically important benefit over non-surgical care for the mostly small, degenerative tears these trials studied, and it was careful to say that this conclusion does *not* automatically extend to traumatic tears, to large tears, or to younger patients, who were largely not included. Second, choosing "no surgery" is not the same as choosing "ignore it." A meaningful share of untreated degenerative tears do enlarge over the years, and once a tear grows and the muscle behind it develops fatty change, a later repair becomes harder and less reliable. That is precisely why I follow these shoulders rather than discharge them and look away.

So how do I actually decide? The two paths

When a patient sits in front of me, I am, in effect, sorting their shoulder onto one of two paths. Neither path is a guarantee, and patients move between them as the shoulder declares itself over time. But the framework is honest, and it is the same one I would use for my own family.

The decision, on one page

Where a shoulder tends to sit, not a rule, a starting point

Path A · Try non-surgical first
Atraumatic degenerative tear

The common, age-related tear that crept up without an injury.

- Came on gradually, no clear single injury
- Small to medium, often partial-thickness
- Older, lower physical demand on the shoulder
- Pain that may settle with structured rehab

First line: a proper physiotherapy programme, activity adjustment, and a corticosteroid injection where pain is limiting. Followed up, not forgotten.

Path B · Consider repair earlier
Acute, large, or younger-patient tear

The tear that behaves like an injury, or threatens future function.

- Sudden, traumatic, full-thickness tear
- Genuine new weakness, not just pain
- Younger or higher-demand patient
- Tear enlarging, or good non-surgical care has failed a fair trial

Earlier surgical repair is weighed seriously, because a timely repair, while the tendon and muscle are still in good condition, gives the best chance of healing.

Most shoulders are not purely one or the other. The point is to know which way yours leans, and to keep watching.

A few threads run through both paths. **New, real weakness** after a clear injury pulls a shoulder firmly towards Path B; it suggests a tendon that has genuinely let go rather than one that is merely sore. **Tear size and progression** matter, because a tear that is enlarging, or muscle that is starting to waste and fill with fat, is a tear whose repair window may be closing. And **the person** matters: a sixty-eight-year-old who wants a comfortable shoulder for daily life and a thirty-five-year-old labourer who must carry loads overhead are not the same problem, even with an identical scan.

What "non-surgical treatment" actually involves

When I recommend the non-surgical path, I am not recommending that you do nothing, and I am certainly not recommending rest alone. A frozen, unused shoulder gets worse, not better. A good programme is active and specific: a physiotherapist guides you through exercises that strengthen the muscles around the cuff and restore smooth movement, so that the remaining healthy tendons learn to do more of the work. This takes a fair trial of several months, done properly, before anyone can say it has failed.

Where pain is the main obstacle to doing that rehab, a single corticosteroid injection into the shoulder can give useful short-term relief of pain and a window in which to work, and the guidelines support its considered use. I am cautious about repeating injections many times over, because there is reason to think that multiple steroid injections may weaken the tendon and make any later repair less secure. One well-timed injection to unlock a rehab programme is a tool; a string of them as a substitute for a plan is not.

And when surgery is the right call

None of this is an argument against surgery. Rotator cuff repair is a good operation that I perform regularly, and for the right shoulder it is clearly the better choice. The strongest case is the acute, traumatic, full-thickness tear in an otherwise healthy shoulder, especially in a younger or active person, where a prompt repair aims to restore strength and protect the joint for the decades ahead. Surgery also earns its place when a fair, well-structured trial of non-surgical care has genuinely been given and the shoulder remains painful and weak, or when follow-up shows the tear is enlarging.

The guidelines reflect exactly this balance. They recognise that both physiotherapy and surgery meaningfully improve symptoms for small and medium tears, that a repair which heals tends to give somewhat better function than physiotherapy or a repair that fails to heal, and that for partial tears a trial of physiotherapy comes first, with surgery reserved for those who do not settle. In other words, the formal recommendations say what the trials say: tailor the treatment to the tear and the person, do not reach for the same answer every time.

What I tell my patients

If you take one thing from this, let it be this. The question is not "is my cuff torn," because at a certain age a fair number of perfectly happy shoulders are. The question is "is this tear, in this shoulder, in my life, behaving in a way that surgery would improve." For many degenerative tears the honest answer

is that a good rehabilitation programme, with watchful follow-up, is the sensible first move. For a smaller group, those with a fresh significant injury, real weakness, a large or enlarging tear, or a high-demand shoulder, the honest answer points towards repair, and sooner rather than later.

That is not fence-sitting. It is the actual shape of the evidence. Anyone who tells you that every cuff tear must be operated on, or that no cuff tear ever needs surgery, is choosing a slogan over your shoulder.

The evidence behind this article

Journal references located via PubMed; guideline from the American Academy of Orthopaedic Surgeons.

1. Minagawa H, Yamamoto N, Abe H, et al. Prevalence of symptomatic and asymptomatic rotator cuff tears in the general population. *Journal of Orthopaedics*, 2013. Full-thickness tears in 22.1% of a screened village population, rising with age (about none below 50 to 36.6% in the 80s); roughly two-thirds of tears were asymptomatic. https://doi.org/10.1016/j.jor.2013.01.008
2. Kukkonen J, Joukainen A, Lehtinen J, et al. Treatment of nontraumatic rotator cuff tears: a randomized controlled trial with two years of follow-up. *The Journal of Bone & Joint Surgery (American)*, 2015. No significant difference in outcome between physiotherapy, acromioplasty plus physiotherapy, and repair plus physiotherapy at two years; conservative treatment reasonable as initial care for older patients. https://doi.org/10.2106/JBJS.N.01051
3. Kukkonen J, Ryösä A, Joukainen A, et al. Operative versus conservative treatment of small, nontraumatic supraspinatus tears in patients older than 55 years: over 5-year follow-up of a randomized controlled trial. *Journal of Shoulder and Elbow Surgery*, 2021. At a mean 6.2 years, operative treatment was no better than conservative treatment for these tears; conservative treatment a reasonable initial option. https://doi.org/10.1016/j.jse.2021.03.133
4. Moosmayer S, Lund G, Seljom US, et al. Tendon repair compared with physiotherapy in the treatment of rotator cuff tears: a randomized controlled study in 103 cases with a five-year follow-up. *The Journal of Bone & Joint Surgery (American)*, 2014. Repair gave better outcomes than physiotherapy by a small margin; 12 of 51 physiotherapy patients had secondary repair, and tears enlarged in about a third of unrepaired shoulders. https://doi.org/10.2106/JBJS.M.01393
5. Moosmayer S, Lund G, Seljom US, et al. At a 10-year follow-up, tendon repair is superior to physiotherapy in the treatment of small and medium-sized rotator cuff tears. *The Journal of Bone & Joint Surgery (American)*, 2019. The advantage for primary repair had increased by ten years; 14 patients had crossed from physiotherapy to surgery. https://doi.org/10.2106/JBJS.18.01373
6. Moosmayer S, Lund G, Seljom US, et al. Fifteen-year results of a comparative analysis of tendon repair versus physiotherapy for small-to-medium-sized rotator cuff tears. *The Journal of Bone & Joint Surgery (American)*, 2024. Repair remained superior at 15 years; 15 of 51 physiotherapy patients crossed over to surgery, and mean tear size in unrepaired tears roughly doubled. https://doi.org/10.2106/JBJS.24.00065
7. Schemitsch C, Chahal J, Vicente M, et al (incl. Lambers Heerspink F). Surgical repair versus conservative treatment and subacromial decompression for rotator cuff tears: a meta-analysis of randomized trials. *The Bone & Joint Journal*, 2019. Repair gave a statistically better Constant–Murley score at one year, but the difference was small and the success rate of conservative

treatment high; 11.9% of conservatively treated patients crossed over to surgery. https://doi.org/10.1302/0301-620X.101B9.BJJ-2018-1591.R1

8. Karjalainen TV, Jain NB, Heikkinen J, et al. Surgery for rotator cuff tears. *Cochrane Database of Systematic Reviews*, 2019. Surgery may provide little or no clinically important benefit over non-operative care for mostly small degenerative tears; the review notes its conclusions may not apply to traumatic tears, large tears or younger patients. https://doi.org/10.1002/14651858.CD013502
9. Keener JD, Skelley NW, Stobbs-Cucchi G, et al. Shoulder activity level and progression of degenerative cuff disease. *Journal of Shoulder and Elbow Surgery*, 2017. In a cohort of initially asymptomatic degenerative tears, tear enlargement occurred in 51.2% and new pain developed in 46.5% over a median 4.1 years; dominant-arm tears carried higher risk. https://doi.org/10.1016/j.jse.2017.05.023
10. Hebert-Davies J, Teefey SA, Steger-May K, et al. Progression of fatty muscle degeneration in atraumatic rotator cuff tears. *The Journal of Bone & Joint Surgery (American)*, 2017. Fatty muscle degeneration progressed more often in tears that were larger at baseline and that enlarged over time, frequently soon after a clinically relevant increase in tear size. https://doi.org/10.2106/JBJS.16.00030
11. American Academy of Orthopaedic Surgeons. Management of Rotator Cuff Injuries: Evidence-Based Clinical Practice Guideline, 2025. Both physiotherapy and surgery improve outcomes for small-to-medium tears (strong); tear size, atrophy and fatty infiltration may progress over 5–10 years with non-operative care (strong); a healed repair gives better outcomes than physiotherapy or an unhealed repair (moderate); a single corticosteroid injection can be considered for short-term pain and function (strong); physiotherapy first for low-grade partial tears, with surgery where symptoms persist. https://www.aaos.org/rccpg2025

> **Dr. Vishnu's Perspective**
>
> A tear on the scan is a finding, not a verdict. What matters is how the shoulder behaves.

Frequently Asked Questions

Does every rotator cuff tear need surgery?

No. Many degenerative tears, the kind that come on gradually with age, settle well with a structured physiotherapy programme and do not need an operation. In randomised trials of small and medium degenerative tears, most patients treated without surgery improved and were satisfied, and only a minority later chose to have a repair. Surgery becomes more important for tears that follow a clear injury, for larger tears, for younger patients, and when good non-surgical treatment has been given a fair trial and has not worked.

What is the difference between a degenerative and a traumatic tear?

A degenerative tear develops slowly as the tendon wears with age, often without any single injury, and is very common in older shoulders. A traumatic tear happens at a defined moment, such as a fall or a sudden heavy pull, often in a shoulder that was working normally the day before. The distinction matters because a sudden, significant traumatic full-thickness tear, especially in a younger or active person, is one of the situations where earlier surgical repair is more often considered.

If I do not have surgery, will the tear get bigger?

Some untreated tears stay the same for years, but a meaningful proportion do enlarge over time, and the muscle behind the tendon can develop fatty change. In long-term follow-up of degenerative tears managed without surgery, tear size increased in a substantial share of patients. This is why choosing non-surgical treatment is not simply “leave it alone.” It means being followed up so that if the shoulder is deteriorating, the plan can be revisited while a good repair is still possible.

Is physiotherapy as good as surgery for a rotator cuff tear?

For small and medium degenerative tears, several randomised trials found that pain and function at one to two years were broadly similar whether patients had surgery or physiotherapy. With longer follow-up, some trials found a modest advantage for repair, particularly where the repair healed. The fair summary is that physiotherapy is a reasonable first step for many degenerative tears, while surgery offers an additional benefit for selected patients, and the two are choices to weigh together rather than a simple better-or-worse.

How long should I try physiotherapy before deciding on surgery?

There is no single fixed number that fits everyone, but a properly structured programme needs a fair trial of several months, not a few token sessions, before it can be judged to have failed. The decision to move to surgery rests on how the shoulder responds: persistent pain and weakness, difficulty with daily tasks, and any sign that the tear is progressing. A traumatic tear in a younger patient is assessed sooner rather than being left on a long physiotherapy trial.

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