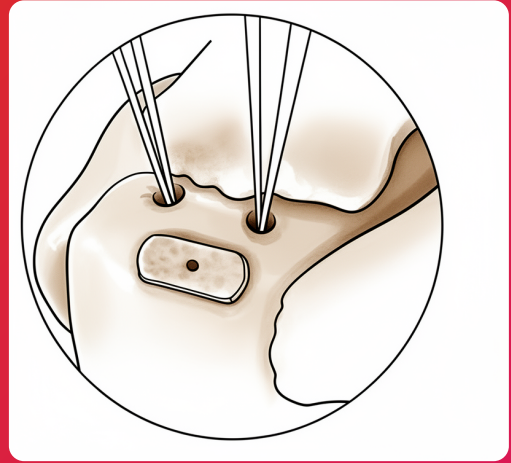


# EnFix Biological Scaffold

A biological scaffold supporting tendon-to-bone healing at a rotator cuff repair.

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## What you're feeling

You likely have pain in the top of your shoulder that feels deep and aching. This discomfort often gets worse when you lift your arm or reach behind your back to fasten a bra. Simple tasks like tucking in a shirt or washing your hair can become difficult and painful.

Many people notice their symptoms flare up at night, making it hard to sleep on the side of the injured shoulder. You might feel stiff and sore when you first wake up in the morning. This pain can also return after you have been active during the day.

If you have a large or massive tear involving two or more tendons, the risk of the repair failing is higher. Without healing, you face a high risk of significant dysfunction and ongoing pain. Functional shoulder strength is often much better when the tendon heals, but without it, daily movement remains limited.

## What's actually happening

Your shoulder works like a rope of fibers (the tendon) attaching to a smooth bone end. Where they meet, nature builds a special transition zone that acts like a shock absorber. This area helps transfer force smoothly between the hard bone and the flexible tendon. Without it, the connection is weak and prone to breaking.

When you tear this tendon, the body tries to heal it by forming scar tissue. This scar tissue is not as strong as the original connection. It often fails to bridge the gap between the tendon and bone. Most re-tears happen within the initial 6-26 weeks after surgery, with a mean of 19.2 weeks. This is why your surgeon focuses on helping this specific spot heal correctly.

Current repair methods often leave a gap between the tendon and bone. This gap fills with weak scar tissue instead of the strong, natural tissue you need. Failure rates for these repairs range from 20% to 94%, depending on the size of your tear. For large tears, the failure rate is 46 +/- 21%, and for massive tears involving two or more tendons, it is 58 +/- 12%. This persistent problem at the attachment site is known as enthesitis failure syndrome.

## What we can do about it

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You can start with self-management and physiotherapy to strengthen your shoulder and reduce pain. Your physiotherapist will guide you through exercises that aim to restore movement and stability. You should give this approach a fair trial for several months before considering other options. If your symptoms do not improve, your surgeon will review your progress to decide the next step.

If exercise alone is not enough, your surgeon may suggest medical management to help with pain and inflammation. You might take pain medication or anti-inflammatories to manage discomfort during daily activities. In some cases, your surgeon may offer injections such as cortisone, hyaluronic acid, or platelet-rich plasma (PRP). These injections can reduce swelling and provide relief that lasts for a few weeks to several months, depending on your specific condition and response to treatment.

Surgery is considered when conservative care has reached its limit and your pain or weakness persists. Your surgeon will look at MRI scans to see how much the tendon has retracted and if there is fatty changes in the muscle. If the tear is large or the tendon quality is poor, surgery may be recommended to repair the damage. The operation aims to reconnect the tendon to the bone and restore function, though the specific details are discussed on your surgical page.

## When to see someone

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See your GP if you have persistent pain that does not improve with rest, or if you notice new weakness or instability in your shoulder. Ask for a specialist review if your shoulder locks, gives way, or if symptoms interfere with your sleep or work. Contact your surgeon immediately if you experience a sudden worsening of symptoms. While most patients heal well, factors like age over 70 years, large retracted tears, or fatty infiltration can increase the risk of re-tear. Functional strength is significantly better when the tendon heals, so early review helps prevent significant dysfunction and pain.