CONDITION

Tendinopathy

Tendinopathy is persistent pain and reduced function caused by changes within a tendon.

WHAT IT IS
Painful loss of tendon function

BODY SYSTEM
Muscles, bones and joints

MAIN SYMPTOMS
Activity-related pain, stiffness, tenderness, reduced strength

WHAT CAUSES IT
Repeated loading beyond the tendon's capacity

HOW IT IS DIAGNOSED
History and examination; imaging when the diagnosis is unclear

MAIN TREATMENT
Activity adjustment and progressive strengthening

CAN IT BE CURED?
Sometimes - symptoms often resolve, but recurrence can occur

IS IT AN EMERGENCY?
Sometimes - sudden snap with immediate loss of function

LONG-TERM OUTLOOK
Often improves over months with consistent rehabilitation

Overview

A tendon is a strong band of tissue that connects a muscle to a bone. Tendinopathy happens when a tendon becomes painful and less able to cope with physical load. It can affect movement, strength, work, exercise, and everyday tasks.

Common sites include the Achilles tendon at the back of the ankle, the patellar tendon below the kneecap, the shoulder's rotator cuff tendons, the tendons on the outside of the elbow, and the gluteal tendons at the side of the hip.

The condition was often called "tendinitis," which suggests that inflammation is the main problem. Inflammation may contribute, especially early on, but long-lasting tendinopathy also involves changes in tendon structure and how the tendon responds to load. For this reason, anti-inflammatory treatment alone does not usually address the full problem.

Tendinopathy is different from a complete tendon rupture, in which the tendon tears apart. It is also different from pain caused by an infected joint, broken bone, or irritated nerve. An assessment can help distinguish these conditions.

Recovery is usually gradual. Tendons adapt more slowly than muscles, so meaningful improvement often takes weeks or months rather than days.

Symptoms

Pain is usually linked to loading the tendon. It may appear during exercise, after exercise, or the following morning. At first, it may occur only with demanding activity. Over time, ordinary movements such as climbing stairs, lifting, gripping, or walking may become uncomfortable.

Typical features include:

Symptoms differ by location. Achilles tendinopathy may cause pain during walking, running, or pushing up onto the toes. Patellar tendinopathy often hurts during jumping, squatting, or stairs. Shoulder tendinopathy can make reaching or lying on that side painful. Gluteal tendinopathy commonly causes pain over the outer hip, especially when walking, climbing stairs, or lying on the affected side.

Pain does not always match the amount of visible tendon change. Some people have changes on a scan without pain, while others have significant pain with little visible damage.

A sudden snap or pop, rapid swelling, bruising, or immediate loss of strength is not typical of uncomplicated tendinopathy. These symptoms may indicate a partial or complete tendon tear.

- Pain focused around a tendon
- Tenderness when the area is pressed
- Stiffness after rest or on waking
- Reduced strength or ability to repeat an activity
- Pain when the tendon is stretched or loaded
- Local thickening or mild swelling in some tendons

Causes and risk factors

Tendinopathy often develops when the load placed on a tendon exceeds what it can currently tolerate. This may follow a rapid increase in running distance, repeated lifting, a new sport, more intense training, or a return to activity after a break.

The cause is not always one event. Tendon capacity can change with age, illness, inactivity, or previous injury. A workload that was manageable in the past may become too demanding after time away from exercise.

Factors that may increase risk include:

Certain medicines are associated with tendon injury. These include fluoroquinolone antibiotics and, less commonly, long-term corticosteroid treatment. The risk is not the same for everyone. Do not stop a prescribed medicine without medical advice, but seek advice promptly if new tendon pain develops while taking a medicine known to affect tendons.

Foot shape, posture, or movement patterns may contribute in some situations, but they are rarely the only cause. Tendinopathy should not automatically be blamed on "poor posture" or a single body feature.

- Repetitive work, sport, or household activity
- A sudden increase in speed, distance, weight, or training frequency
- Too little recovery between demanding activities
- Reduced muscle strength or joint movement
- Previous tendon pain or injury
- Increasing age
- Diabetes, high cholesterol, or some inflammatory conditions
- Smoking
- Higher body weight, particularly for weight-bearing tendons

Diagnosis

Tendinopathy is usually diagnosed from your symptoms and a physical examination. A healthcare professional may ask when the pain started, which activities bring it on, whether your workload recently changed, and whether you have had a previous injury.

The examination may check tenderness, movement, strength, and pain during specific loading tests. It should also look for other causes of pain, such as arthritis, bursitis, nerve irritation, a stress fracture, or a tendon tear.

Scans are not always needed. Ultrasound can show tendon thickening, structural changes, and some tears. MRI provides more detailed images and may be used when the diagnosis remains uncertain or surgery is being considered.

Scan results must be interpreted alongside your symptoms. Tendon changes are common in

people without pain, so an abnormal scan does not by itself prove that the tendon is causing the problem. Similarly, symptoms can be real even when a scan shows only minor changes.

Blood tests are not used to confirm ordinary tendinopathy. They may be considered if symptoms suggest an inflammatory illness, infection, or another medical condition.

Treatment and management

Treatment aims to reduce pain, restore strength, and gradually improve the tendon's ability to tolerate load. The plan depends on the tendon involved, how long symptoms have been present, and the activities you need or want to do.

Complete rest is rarely the best long-term approach. It may reduce pain briefly, but the tendon and surrounding muscles can lose capacity. Instead, activity is usually adjusted so that symptoms remain manageable while rehabilitation begins.

Exercise-based rehabilitation is the main treatment. It commonly starts with controlled strengthening and progresses toward heavier, faster, or more activity-specific loading. For example, rehabilitation may eventually include jumping for a patellar tendon problem or repeated heel raises for an Achilles problem.

Some discomfort during exercise may be acceptable, but severe pain or a marked increase that continues into the next day can mean the load was too high. A physiotherapist can help select and progress exercises, particularly if symptoms are limiting daily life or sport.

Other management options may include:

Anti-inflammatory medicines may reduce short-term pain, but tendinopathy is not simply an inflammatory condition. These medicines are not suitable for everyone and can affect the stomach, kidneys, heart, or other medicines.

Corticosteroid injections can provide short-term relief for some tendon conditions, but benefits may not last. Repeated injections can weaken tendon tissue, and injection into certain tendons may increase rupture risk. The risks and possible benefits differ by tendon and should be discussed before treatment.

Other injections, including platelet-rich plasma, have mixed evidence and are not a reliable cure. Shockwave therapy may be considered for some persistent tendon problems, but results differ by tendon and individual circumstances.

Surgery is uncommon. It may be considered when well-planned rehabilitation has not improved severe, lasting symptoms and the diagnosis is clear. Recovery after surgery still involves rehabilitation.

- Temporary changes to work, training, footwear, or equipment
- Ice or heat for short-term comfort
- Simple pain relief when medically suitable
- Supportive taping, braces, or heel lifts in selected cases
- Treatment of related muscle weakness or restricted joint movement

Complications

The main complication is persistent or recurring pain that limits movement, work, sleep, or exercise. Avoiding activity for a long time can also lead to muscle weakness, reduced fitness, and lower confidence in movement.

A partial or complete tendon rupture can occur, although most people with tendinopathy do not develop one. The risk may be higher with a sudden heavy load, certain medicines, or injections into or around vulnerable tendons.

Pain can also lead to changes in movement that irritate nearby areas. For example, long-lasting Achilles pain may affect the foot, knee, or other leg because walking or running has changed.

Treatment itself can have complications. Medicines may cause side effects, injections can cause infection or tissue injury, and surgery carries risks such as infection, scarring, stiffness, or continued pain.

Prevention

Not every case can be prevented. Age, health conditions, previous injuries, and necessary work demands may affect tendon capacity.

You may reduce risk by increasing physical demands gradually. Avoid making several major changes at once, such as adding more training days while also increasing speed and distance. Build in recovery time after unfamiliar or demanding activity.

Regular strength training can help tendons and muscles tolerate load. The exercises should match the activities you perform. Good sleep, adequate nutrition, and avoiding smoking may also support tissue health and recovery.

If tendon pain begins after a workload change, reducing the most aggravating activity early may prevent symptoms from becoming more limiting. This does not necessarily mean stopping all movement.

Living with it and what to expect

Tendinopathy often improves, but progress is rarely perfectly steady. You may have good and bad days, especially when activity, sleep, work demands, or rehabilitation load changes.

Pain can settle before the tendon has regained full strength. Returning immediately to the previous workload can trigger another flare. A gradual return allows the tendon to adapt and gives you time to monitor how it responds the following day.

Some people improve within a few months. Others need longer, particularly when symptoms have been present for a long time, affect a heavily loaded tendon, or occur alongside another health condition. Persistent scan changes do not always mean treatment has failed. Tendons may continue to look different even when pain and function improve.

A flare does not necessarily mean that the tendon has been newly damaged. It often means the current load has exceeded its present capacity. Short-term adjustment followed by a gradual rebuild may be more helpful than returning to complete rest.

Many people return to normal daily activities, work, and sport. Some need ongoing strength work or changes to training volume to reduce recurrences. If progress has stopped despite consistent rehabilitation, a review can check the diagnosis and treatment plan.

When to get medical help

Arrange a routine assessment if tendon pain lasts more than a few weeks, keeps returning, disturbs sleep, or limits work, walking, exercise, or everyday tasks. Earlier assessment is also reasonable if you have diabetes, an inflammatory condition, previous tendon rupture, or tendon pain after starting a medicine associated with tendon injury.

Seek urgent medical care if you have:

Call emergency services for a visibly deformed limb, loss of feeling or circulation, or serious injury. Sudden calf swelling with chest pain, faintness, or shortness of breath also needs emergency care because it may indicate a blood clot rather than tendinopathy.

- A sudden snap or pop followed by weakness or loss of movement
- Rapid swelling or bruising around a tendon
- Inability to bear weight, push off the foot, lift the arm, or use the limb
- A hot, red, very swollen area with fever or feeling unwell
- Severe pain after a fall, collision, or other significant injury

Common questions

Does tendinopathy ever go away?

It can. Many people improve with activity adjustment and progressive strengthening, although recovery may take several months. Some people have recurring symptoms or need to continue strength exercises to maintain the tendon's capacity.

Should I rest a painful tendon?

Briefly reducing painful activity can help during a flare, but prolonged complete rest usually reduces strength and load tolerance. The usual goal is to keep moving within manageable limits and gradually rebuild capacity.

Can I exercise with tendinopathy?

Often, yes. Exercise is a central part of treatment, but the type and amount may need to change. A strong increase in pain during exercise or lasting worsening the next day may mean the load should be reduced.

Is tendinopathy the same as tendinitis?

The terms are often used for similar symptoms. "Tendinitis" implies inflammation, while "tendinopathy" is broader and includes pain, reduced function, and longer-term tendon changes. Inflammation may still play a role.

Do I need an ultrasound or MRI scan?

Not always. The diagnosis can often be made from your history and examination. Imaging may be useful when the diagnosis is uncertain, a tear is suspected, symptoms are not improving as expected, or surgery is being considered.

Can a damaged tendon repair itself?

Tendons can adapt and become stronger with suitable loading, but they heal more slowly than many other tissues. Pain and function may improve even if the tendon does not return to a completely normal appearance on a scan.

Sources

- Millar NL, Silbernagel KG, Thorborg K, and colleagues. "Tendinopathy." Nature Reviews Disease Primers . 2021;7:1.



- Cook JL, Purdam CR. "Is tendon pathology a continuum? A pathology model to explain the clinical presentation of load-induced tendinopathy." British Journal of Sports Medicine . 2009;43:409-416.
- Malliaras P, Barton CJ, Reeves ND, Langberg H. "Achilles and patellar tendinopathy loading programmes: a systematic review comparing clinical outcomes and identifying potential mechanisms for effectiveness." Sports Medicine . 2013;43:267-286.
- Coombes BK, Bisset L, Vicenzino B. "Efficacy and safety of corticosteroid injections and other injections for management of tendinopathy: a systematic review of randomised controlled trials." The Lancet . 2010;376:1751-1767.
- National Health Service. "Tendonitis." NHS health information.
- National Institute for Health and Care Excellence. "Achilles tendinopathy." Clinical Knowledge Summaries .