

PATIENT INFORMATION: ACHILLES TENDON RUPTURE

What is the Achilles tendon?

The Achilles tendon, or heel cord, is a thick strip of tissue that runs down the back of the heel connecting the calf muscle to the calcaneum. When it pulls on the heel, it points the toes down and is particularly important in propulsion.



How is it injured?

An injury can occur through sport, sudden propulsion (such as slipping when pushing a car through the mud) or a fall. Occasionally, long-term steroid use or certain types of antibiotics can cause defects in the tendon fibres increasing the chance of rupture.

Signs and symptoms

Some patients describe hearing a 'gun shot go off' as their Achilles ruptures followed by sudden pain. Other patients have might have severe pain or a sensation of being kicked in the calf.

Non-surgical treatment

Treatment can be non-surgical or surgical. Non-surgical options generally involve a short period of immobilization followed by early weight bearing in a walking cast or fixed ankle boot with a heel raise to support the tendon. The heel raise is gently stretched out over a period of weeks. Around eight to ten weeks following the injury, aggressive physiotherapy can commence to re-gain any lost muscle mass and address any stiffness. There is an approximately 7% re-rupture rate with Achilles tendon tears that are treated non-operatively.

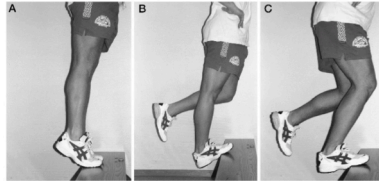


Figure 1. From an upright body position and standing with all body weight on the forefoot and the ankle joint in plantar flexion (left) by the normal leg (A), the calf muscle was loaded eccentrically by flexing the patient lower the heel with the knee straight (B) and with the knee bent (C).

Surgical treatment

The decision to proceed with surgical treatment is a personal one. This usually involves a small incision over the back of the ankle where the tendon rupture has occurred. Small sutures are placed in the mid-portion of the tendon and reinforced with sutures surrounding the tear.

A half cast is applied at the end of the operation and patients can partially weight bear until the wounds heal.

Sutures are removed at two weeks. At this stage, patients are placed into a weight bearing cast or fixed ankle boot with a heel raise and can commence weight bearing. Over four to six weeks, the heel is lowered until the foot is flat to the floor.

What are the risks of surgery?

The risk of a re-rupture following a surgical repair is approximately 3% - that is, nearly half that of non-surgical treatment. However, these numbers in reality are actually quite small as only seven out of 100 people treated non-surgically will have a re-rupture. The majority of re-ruptures occur six weeks after coming out of immobilization.

This slightly lower re-rupture rate is unfortunately offset by the risk of infection or wound problems. Sometimes surgical debridement under a general anaesthetic is required to encourage the wound to heal, plus a course of antibiotics. Rarely, plastic surgery is required to treat any soft tissue defects that may have occurred following the surgery. Finally, a very rare but serious complication in the setting of an uncontrolled infection is an amputation.

There is a small risk of blood clots in the legs that can break off and go to the lungs (pulmonary embolus). Occasionally, some patients may be suitable for blood-thinning medication. Usually patients are encouraged to

mobilise early and weight bear once the wound has healed to minimize the risk of blood clots.

There is a nerve on the outside of the ankle that can be damaged during surgery. This may result in numbness on the sole of the foot which can be permanent.

Occasionally tissue around the scar or the tendon itself can become thickened. This can cause irritation with certain types of footwear or some occupations where heavy steel-cap boots are required.

When can I return to sport?

Generally speaking, Achilles tendon ruptures treated either non-surgically or surgically require at least three months of rehabilitation before attempting to play sport.

Generally swimming can be commenced approximately four weeks following the rupture provided the toe is kept in the pointed position and the patient avoids pushing off the wall at all times.

Cycling and light gym work can usually be commenced at six weeks post-rupture provided a small heel raise is present in the shoe.

Three months post injury, patients can increase their weight bearing through the effected leg. Generally they can try some sports-specific exercises before returning to full contact sport around six to eight months.

The rehabilitation and recovery period is quite prolonged and requires patience on behalf of both the patient and surgeon.

When can I drive?

Generally patients are safe to drive six weeks following injury.

If you have any other questions, please don't hesitate to contact the surgery.

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