

WHAT ABOUT SURGERY?

There are a number of different surgical procedures for this condition. The new procedure of arthroscopic confluence coblation when performed properly appears to have a high rate of success in chronic tendonitis. Therefore, your surgeon should be able to offer a better than 90% chance of improvement with the least risk of complications. Surgical options include:

- ◆ Open tendon decompression
- ◆ Tendon decompression and excision of mucoid degenerative tissue
- ◆ Tendon decompression and radiofrequency vapourisation of the mucoid degeneration (topaz)
- ◆ Arthroscopic decompression of the retropatella fat pad
- ◆ [Arthroscopic Infrapatella Pole Surgery](#)
- ◆ Arthroscopic Confluence Coblation

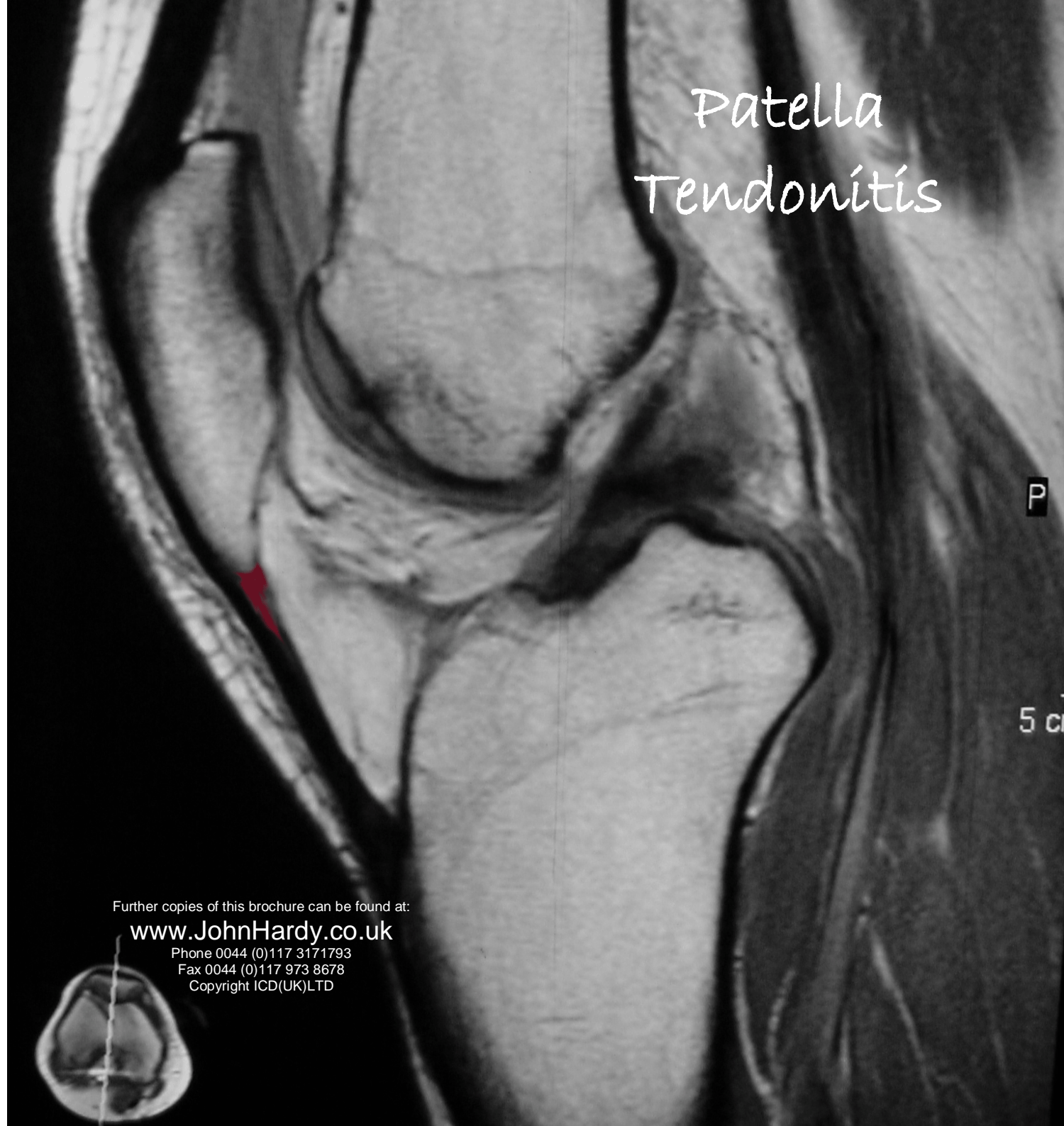
WHAT ABOUT BENEFITS AND RISKS?

Mr Hardy's team will advise you on the benefits and the complications depend on the type of surgery undertaken. Largely the risks are small but include the risks of recurrence, infection, tendon rupture and thrombosis. The Arthroscopic Confluence Coblation is a minor procedure performed under a light sedation anaesthetic with local anaesthetic and takes 20 minutes.

WHAT ELSE SHOULD I KNOW?

Patella tendonitis does improve. Avoid a cortisone injection and prolotherapy as this can mask pain and allow complete degenerative tearing of the tendon.

If you have any other questions please do not hesitate to ask your Orthopaedic and Trauma surgeon.



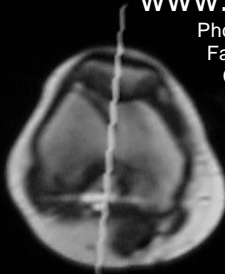
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PATELLA TENDONITIS

Patellar tendonopathy is a common sport related injury. It is most common in jumping and running sports. It is now curable.

The newest hypothesis is that it probably results from a local fluid pump set up in the region of the origin of the ligamentum mucosum and the inferior pole of the patella. Consistent with this is that there are no inflammatory cells and no increase in prostaglandins can be detected in the tendons. [Histopathological studies](#) of the tissue fibrils affected by tendonopathy characteristically demonstrate hypercellularity, hypervascularity, lack of inflammatory infiltrates, and disorganisation and loosening of collagen fibres. [There is no evidence that impingement is the cause of the tendonopathy.](#) Therefore, while [arthroscopic resection of the lower pole of the patella](#) appears to work well the surgery does not make sense and leaves many athletes disabled by this aggressive surgery. A more considered approach is available. MRI studies show oedema of the tendon in its posterior fibres, fat pad and occasionally inferior pole of the patella. It may occur at any location along the patellar tendon, but the most commonly affected site is beneath the inferior pole of the patella. It also appears commonly in athletes who have suffered overuse injuries of the patella as a child and “jumpers knee” as an adult. The closest hypothesis to fit all of these observations is that the patella tendonopathy is due to an abnormal synovial fluid



Figure 1 The red arrow points to an enlarged inferior pole of the patella in an adult with patella tendonitis and a history of Sinding-Larsen-Johansson disease (SLJ).

pump at the confluence of structures (the confluence of the medial plica, lateral plica, infrapatella plica and fat pad) at the inferior pole of the patella set up by compression during flexion of the upper part of Hoffa's fat pad and the inferior pole of the patella.

Synovial fluid is irritant to extra-articular tissues. In a similar manner to the way a horizontal tear of the lateral meniscus sets up a pump mechanism to create a

parameniscal cyst this pump drives the irritant joint fluid in and around the fibres of the patella tendon.

HOW DO I KNOW IF I HAVE PATELLA TENDONITIS?

The General Practitioner, or Orthopaedic and Trauma Surgeon you see will take a history, examine you and organise special investigations if necessary. The common Symptoms and Signs include:

- ◆ Pain in the front of your knee climbing stairs or slopes
- ◆ Pain that is worse first thing in the morning
- ◆ Swelling is rare
- ◆ Tenderness along the patella tendon worse with the knee straight rather than bent
- ◆ MRI is the investigation of choice



Figure 2 MRI of left knee showing oedema of the deep fat pad.

- ◆ Plain radiographs are useful to distinguish this from Sinding-Larsen-Johansson syndrome.

WHAT TREATMENTS ARE THERE?

Most doctors will recommend conservative measures to try and control symptoms:

Stopping the activity that caused the injury (rest)

- ◆ Ice or cold therapy
- ◆ Cross training and Eccentric training (activities that do not cause pain)
- ◆ Simple analgesia or non-steroidal anti-inflammatory
- ◆ Physiotherapy and [patella supports](#)
- ◆ Patella Taping or [Procure Surround Patella Strap](#)
- ◆ [Lithotripsy](#)
- ◆ [Prolotherapy](#)

As the pain in chronic patellar tendinopathy is not inflammatory in nature and does not involve collagen damage of the tendon, conservative therapy should be shifted from anti-inflammatory strategies towards a complete rehabilitation with eccentric tendon strengthening as a key element. [Prolotherapy](#) has no rationale and can cause [unacceptable scarring](#). Essentially it worsens the hypercellularity and hypervascularity and so plays no part in the modern management of patella tendonopathy.

WHAT IS ECCENTRIC TRAINING?

In eccentric contraction of a muscle, the force generated in the muscle is insufficient to overcome the external load on the muscle and the muscle fibers lengthen as they contract. An eccentric contraction is used as a means of decelerating a body part or object, or lowering a load gently rather than letting it drop. A slow squat for example involves eccentric contraction of the quadriceps muscle.

Most studies of eccentric training suggest this type of load may have a positive effect on patella tendonitis. The studies available indicate that the treatment programme should include facing down a decline board to reduce contraction of the calf muscles and should be performed with some level of discomfort. You should expect a slow improvement with conservative management.