

TORN LIGAMENTUM MUCOSUM

INTRODUCTION

Plicae are some of the normal structures of the knee joint cavity. They are folds of the capsule of the joint that surround the patella (kneecap). The plicae are variable in structure between individuals. There are at least 4 in most knees.

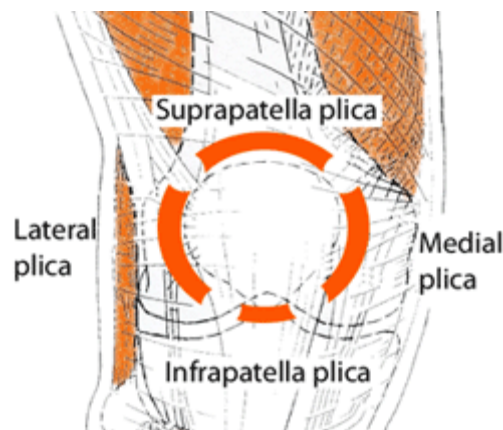


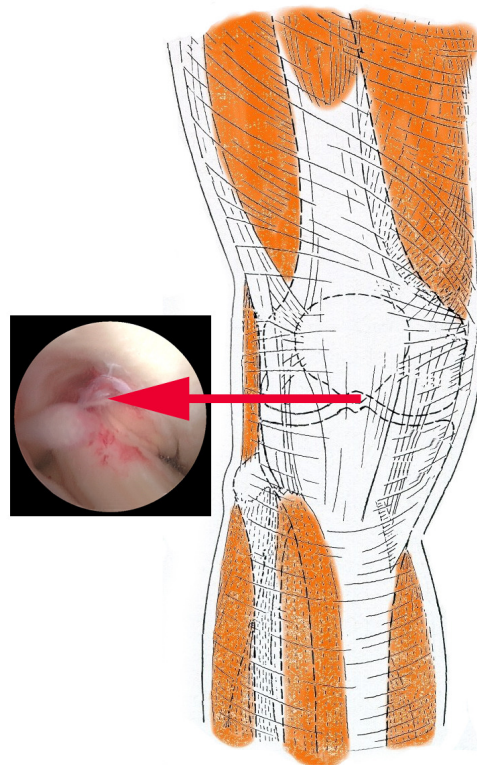
Figure 1 The four plicae of the right knee.

The infrapatella plica is usually known as the ligamentum mucosum. The ligamentum is usually intact in early life and may or may not be present in the elderly implying in life it has ruptured ([Dupont JY. Synovial plicae of the knee. Clin Sports Med. 1997;16\(1\):87-122](#)). It lies in the same plane as the anterior cruciate ligament (ACL). This suggests that the same type but not necessarily magnitude of injury that ruptures the ACL also ruptures the ligamentum mucosum ([Abreu MR et al. Hoffa's fat pad injuries and their relationship with anterior cruciate ligament tears. Skeletal Radiol. 2008;37\(4\):301-6](#)). It can be considered

to be equivalent to a washing line that supports the Hoffa's infrapatella fat pad. Tear of the ligamentum mucosum is not without clinical relevance.

HOW DO I KNOW IF I HAVE A TORN LIGAMENTUM MUCOSUM?

Most ligamentum mucosum tears do not cause symptoms. There may or may not be a history of injury to the knee. Tear of the ligamentum mucosum can cause impingement (pinching between the patella and femur). If this happens it will cause symptoms such as sharp



intermittent pain at the lower pole of the patella, crepitus

Figure 2 Torn ligamentum mucosum (infrapatella plica: red arrow).

(grates on movement) and occasionally giving way on

stairs. If there is already wear and tear of the cartilage surface of the joint then there might be an effusion (fluid). The torn infrapatella plica can also cause symptoms indirectly if it is no longer able to support Hoffa's fat pad. Then the medial and occasionally the lateral tongues of the fat pad drop into the tibiofemoral joint overlying the anterior horn of the menisci (horse shoe shaped cartilages). The pain appears as the tongues of fat become swollen and then fibrotic and hard. This usually occurs about three months after the injury. The pain from Hoffa's fat pad impingement is usually localized at the joint line of the tibiofemoral joint adjacent to the patella tendon.

WHO DO I SEE IF I THINK I HAVE TORN LIGAMENTUM MUCOSUM?

If your symptoms have been going on for more than 6 weeks, ask your physiotherapist or doctor to send you to a Consultant in Orthopaedic and Trauma Surgery. The Consultant will ask about the common symptoms. Clinical examination is extremely helpful if the fat pad is tender when palpated along one edge of the patella tendon and this reproduces your symptoms.

Your surgeon may recommend a number of investigations like an X-ray, MRI scan or MRI arthrogram.

IS TREATMENT THE SAME IN EVERYONE?

No. The treatment offered should depend on the diagnosis that has been confirmed. Prognosis depends on how much wear and tear the ligamentum has caused:

1. Normal MRI
2. MRI showing oedema of the plica or Hoffa's fat pad and Grade 0 chondromalacia (no cartilage surface damage)
3. Grade 1 chondromalacia (slight cartilage surface damage)
4. Grades 2-3 chondromalacia (cartilage surface damage)
5. Grade 4 chondromalacia (loss of cartilage)

AM I GOING TO GET BETTER?

The outlook (prognosis) depends on the stage of damage to the articular cartilage (chondromalacia). It is good in most cases seen early in the course of the condition.

WHAT ABOUT TREATMENT?

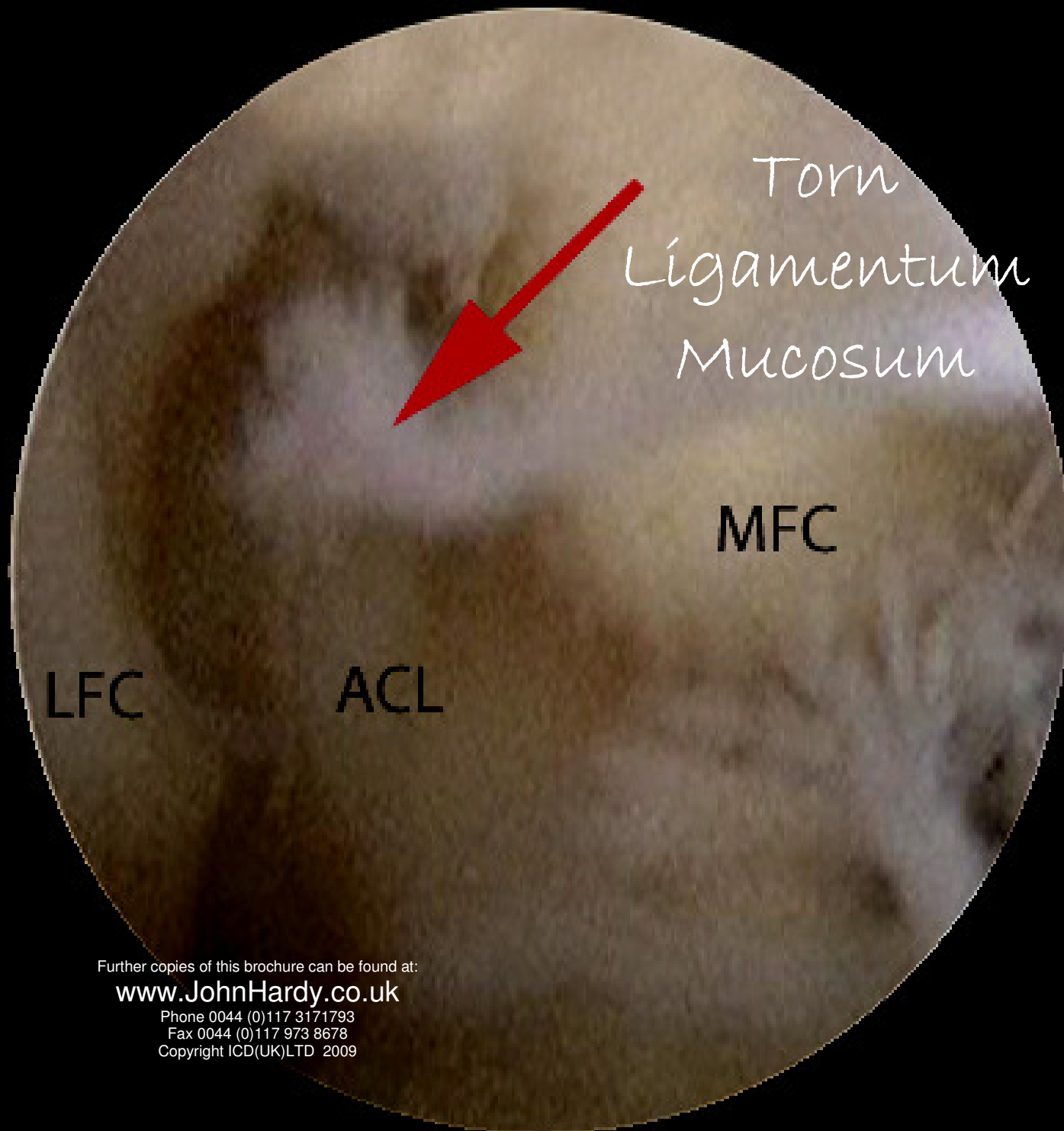
If the Consultant Orthopaedic Surgeon suspects clinically or MRI confirms that you have this condition you will be offered non-steroidal anti-inflammatory drugs, physiotherapy, or occasionally local injection of cortisone. A good physiotherapist will try a course of patella taping and if indicated (Patellofemoral Braces). Surgical treatment is indicated if conservative therapy fails or your condition has progressed beyond grade 1 chondromalacia. This is minor keyhole surgery (arthroscopy). Arthroscopic resection of the torn ligamentum mucosum that is impinging in the joint cures the symptoms within 2 weeks for patients without cartilage damage. Persistent symptoms 6 weeks after surgery are due to over excision of the plica and adhesion formation, misdiagnosis, or persistent symptoms from the cartilage lesion (grade 2-4).

WHAT ARE THE RISKS OF SURGERY?

Take a painkiller such as paracetamol and an anti-inflammatory painkiller such as ibuprofen, which will reduce both pain and reduce swelling after surgery. For the first 72 hrs RICE (Rest, Ice, Compression, Elevation). Always follow the instructions supplied with this medication first or ask your pharmacist for advice if you have any other conditions or if you are taking any other medication. As with any operation there is a risk of infection of the skin (National Average 5-7%). If your wound gets red, hot, swollen and tender; see your doctor, have the sutures removed early and go on antibiotics. There is a small risk of thrombosis. Ask your surgeon for advice to prevent this. There is a small risk of a hemarthrosis and later adhesions. Ask your surgeon about how he is going to prevent this.

WHAT ARE THE BENEFITS?

The relief of pain and prevention of progression of osteoarthritis is the main benefit (O'Dwyer KJ and Peace PK. Injury. The plica syndrome 1988;19(5):350-2). For patients with established degenerate change the surgery might slow the progression of degenerate change.



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