

Advice for Cartilage Injuries

What is Cartilage?

Cartilage is a tough flexible tissue that covers the surface of bone in your joints. Cartilage helps to reduce friction and damage to the bone. It also acts as a cushion and a shock absorber for the joints.

What is a Cartilage Injury?

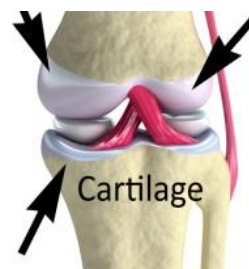
Cartilage damage can occur as a result of a trauma (eg a blow to the knee) or as a result of wear and tear over time.

When damage of a cartilage occurs there may be swelling, pain or loss of movement of the affected joint.

What should I expect in the future if I have a cartilage injury?

Wear and tear of cartilage is a progressive condition. With good management the rate of progression can be slowed down.

It will be normal for you to experience an occasional Flare Up of your symptoms. This can happen for numerous reasons. With good management you can decrease the frequency and severity of flare ups.



Dealing with flare ups:

Hands on Physiotherapy, massage and dry needling are all beneficial techniques in treating joint and cartilage pain (Furlan et al, 2005; Hernandez et al 2001).

Exercise is used to reduce pain levels and restore natural range of movement during a flare up of symptoms (Hayden, 2005).

Medication is often used to treat cartilage injuries. Effective pain relief may involve a combination of prescription drugs and over-the-counter medication (Chou et al 2007). Patients should always check with their GP or pharmacist before taking medication for pain relief.

Once your flare up has subsided and you are pain free, gradually reintroduce activities that you were previously doing keeping all activity pain free.

How do I decrease the chances of my cartilage injury getting worse?

1. Exercise:

Healthy exercise helps to decrease thinning of your cartilage. Exercise is also one of the most effective ways to speed recovery from an injury to a joint and help strengthen the supporting muscles (Haapala et al 1999).

A routine of healthy activities that is prescribed by your physiotherapist is the best way to keep your joints and cartilage healthy.

2. Healthy diet:

A healthy diet helps to prevent excessive weight decreasing the amount of work that cartilage has to do. Proper nutrition may help with the protection of cartilage. Below is a list of some foods and supplements which may help further with the protection of cartilage:

Eggshell Membrane – contains elastin which supports cartilage health.

Hyaluronic Acid – Provides important nutrition to cartilage and reduces in the body as we age. It can be found in fruit or fish or as a supplement.

Glucosamine and Chondroitin - these increase protein which helps to make new cartilage and is useful in the treatment of osteoarthritis. There are no major food sources of glucosamine, so you must get it from supplements (Clegg, 2006).

Vitamin E – can be found in wheat germ oil, sunflower seeds and almonds and helps to promote healthy muscle and cartilage.

Vitamin C – found in citrus fruits, this helps create collagen found in tendons and ligaments.

Lean protein – especially when obtained from fish, helps to reduce inflammation.

Lysine – helps to produce collagen which is responsible for cartilage formation. It is found in such foods as red meat, legumes, cod and eggs.



References:

1. Chou R., Qaseem A., Snow V., Casey D., Cross T., Shekelle P., Owens D.K. (2007) Diagnosis and Treatment of Low Back Pain: A Joint Clinical Practice Guideline from the American College of Physicians and the American Pain Society. *Annals of Internal Medicine*. 147(7):478-491.
2. Furlan A.D., Van Tulder M., Cherkin D., Tsukayama H., Lao L., Koes B., et al. Acupuncture and dry needling for low back pain: an updated systematic review with the framework of the Cochrane Collaboration. *Spine* 30(8): p 944-63.
3. Haappala J, Arokoski, J.P., Hyttinen M.M. (1999) Remobilisation does not fully restore immobilisation induced articular cartilage atrophy. *Clinical Orthopaedics and Related Research* 00, p218-229
4. Hayden J.A., Van Tulder M.W., Tomlinson G. (2005). Systematic Review: Strategies for Using Exercise Therapy To Improve Outcomes in Chronic Low Back Pain. *Annals of Internal Medicine*. Vol 142(9).
5. Hernandez M., Field T., Krasnegor J., Theakston H. (2001). Lower Back Pain is Reduced and Range of Motion Increased After Massage Therapy. Vol. 106 (3-4) , p 131-145
6. Hudelmaier, M., Glaser, C., Hohe, J. Et al (2001). Age related changes in the morphology and deformational behaviour of knee joint cartilage. *Arthritis and Rheumatism* 44, p2556-2561.
7. Sjolie A.N. (2004) Low-back pain in adolescents is associated with poor hip mobility and high body mass index. [Vol 14 \(3\)](#), p 168–175.
8. Clegg DO, Reda DJ, Harris CL, et al. (2006) Glucosamine, chondroitin sulfate, and the two in combination for painful knee osteoarthritis. *The New England Journal of Medicine*. ;354(8):795-808