



Guide To Osteoarthritis of the Knee



THINGS TO CONSIDER

ARE YOU OVERWEIGHT ?

The two biggest risks for osteoarthritis are excess weight and genetics. While you can't change your parents, you can go on a diet. For every 5 kg over your ideal weight, your risk of OA progression doubles. Losing weight is both therapeutic (i.e. the pain is less) and prophylactic (i.e. it protects the joint).

ISN'T MRI THE BEST TEST, WHY DO I NEED AN X-RAY ?

MRI isn't better than x-ray, they are in fact complimentary. Usually a weight bearing x-ray is used to make the diagnosis based on the amount of joint space narrowing, joint spurring, & bone deformity. MRI shows the soft tissue, such as meniscus or ligaments more accurately. Often, in the severely arthritic knee, the meniscus tore many years ago and is not the current problem.

WHAT SYMPTOMS ARE DUE TO OSTEOARTHRITIS ?

Pain, swelling and stiffness are the most common symptoms. There is poor correlation between the severity of osteoarthritis on X-Ray and level of symptoms. Some people with severe osteoarthritis on x-ray are blissfully unaware. Locking or catching can also be due to osteoarthritis, however meniscus tearing or loose bodies can cause similar problems.

I HAVE A BAKER'S CYST ON THE MRI- SHOULD IT BE REMOVED ?

Baker's cysts are just a normal bursa at the back of the knee joint that has filled with joint fluid. While they sound concerning, they are rarely a cause of pain and are usually ignored. Removal, via a large incision at the back of the knee, is avoided

FOR MORE INFORMATION

Visit : <http://www.knee-surgeon.net/>

Knee osteoarthritis is the degeneration and ulceration of the joint articular surface cartilage.

Symptoms of osteoarthritis gradually progress from a low grade ache after heavy activity to constant severe pain that interferes with sleep. It may take decades to progress from mild symptoms to severe.

Some patients have had knee injuries in the past, such as a meniscal tear or fracture, or an underlying joint conditions such as gout. Occasionally, patients have no obvious causative factors. 60% of sixty year old patients will have some osteoarthritis.

Osteoarthritis is the most common form of arthritis but is often the end-stage of other types of arthritis such as rheumatoid arthritis, gout, pseudo-gout or psoriatic arthritis. Osteoarthritis only effects the damaged joint, it doesn't spread to other nearby joints. It is a failure of the joint surface to withstand or

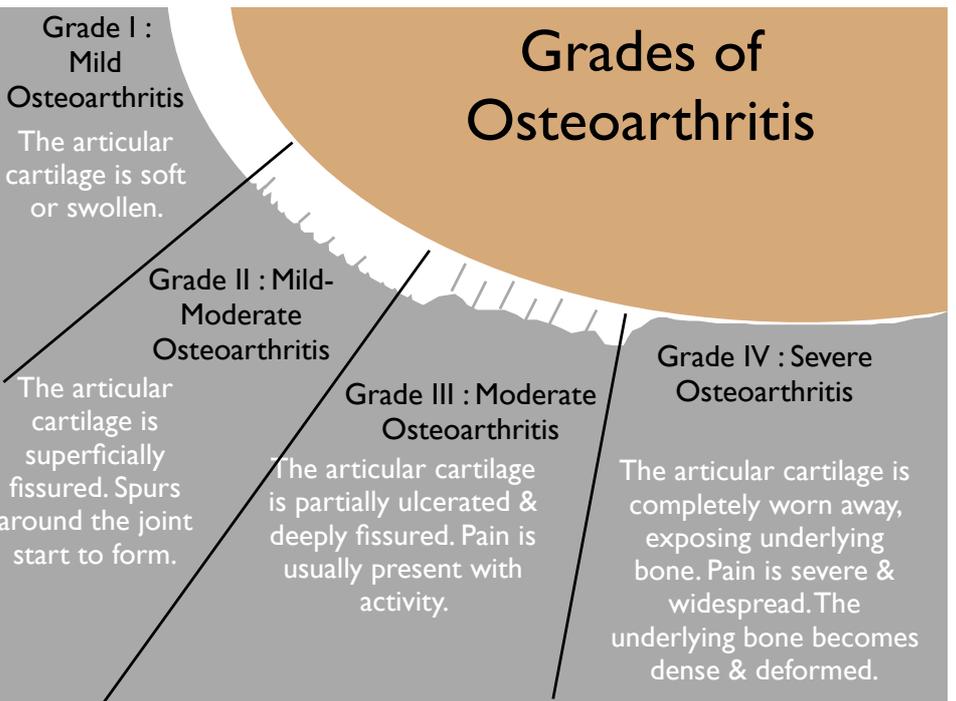
adapt to the loads placed on it, either due to genetic intrinsic abnormalities or extrinsic problems such as obesity. Pain of osteoarthritis is not generated from the cartilage as it has no nerve fibers.

Most patients with osteoarthritis of the knee don't need surgery and will benefit from non-operative treatment.

As the osteoarthritis progresses the knee will slowly start to stiffen and either become bow-legged or knock-kneed. Self-management is perhaps the most significant factor in controlling osteoarthritis. A person who anticipates problems and makes lifestyle changes is better able to achieve control.



Severe Osteoarthritis





Non-Operative Treatment

1 Self Education is important because the more you understand your osteoarthritis, the better you will be able to manage it. The arthritis foundation has some great information to help you understand and manage your condition. Imagine always having an arthritis expert to help out - you !

2 Weight Loss is both prophylactic & therapeutic. This is the most important way to alter the rate of progression of osteoarthritis and improve your pain and function. Calculate your Body Mass Index by dividing your weight in kg by height in cm². Patients with a BMI over 35 with a history of failed dieting should consider a sleeve gastrectomy. Remember :“The lighter you are, the better you will be.”

3 Appropriate Analgesia such as Anti-inflammatories & Paracetamol in combination or part of a multimodal oral therapy works well for moderate osteoarthritis. Use regular Paracetamol for low-level pain but use anti-inflammatories for break-through pain. If the anti-inflammatories don't help - stop them. Anti-inflammatories have side-effects including causing gastrointestinal irritation and high blood pressure. Naprosyn doesn't increase the risk of strokes or cardiac problems- so is the best one to start with.

4 Low Impact Endurance Exercise such as bike riding & swimming is much less irritating to the knee than running or fast walking. Cross-trainer machines and rowers are also low impact. The key is to build your muscle endurance without causing pain or swelling. Walking at a fast pace to lose weight often causes arthritic knees to flare up hence a bike is a much better option.

5 Braces made from neoprene or heavier duty unloader braces will help keep the knee feeling stable and warm. Use them when you are active such as playing golf or tennis. If they don't help the pain - stop.

6 Physiotherapy is very helpful to strengthen weak muscles & stretch tight ones. Concentrate on stretching the hamstrings, gastrocnemius and the ITB.

7 Pilates & Core Strength Programs can really improve your general joint control, gait and muscle control. Some centres offer modified programs for patients with osteoarthritis, in combination with a physiotherapy program,

8 Injectable Therapy is an option best suited to mild - moderate osteoarthritis. Platelet Rich Plasma therapy can provide moderate pain relief for 6-12 months. Synvisc injections can also provide 6 months relief, and are more effective in mild osteoarthritis.

9 Good Quality Footwear is very helpful, particularly to correct any foot deformity and to act as a shock absorber. High heels will usually inflame the situation.

10 Topical Creams includes counterirritants such as Eucalyptus oil and Capsaicin. They work by irritating the skin where it is applied. The skin begins to feel warm, a distraction to local nerves from the pain. Counterirritants only offer temporary pain relief.

10 Alternative Therapy includes Glucosamine and Chondroitin. Unfortunately, recent large studies have failed to show convincing evidence that either are better than a placebo, however they are safe. In addition, no evidence exists that fish oil will help in osteoarthritis. Lyprinol is a green lipped muscle extract, similar to fish oil, that may offer very slight pain relief with no significant side effects but study is required.

DID YOU KNOW ?

Joint cartilage is a layer of tissue present at the joint surfaces that sustains joint loading and allows motion. It is gel-like, porous, and elastic. Normal cartilage provides a durable, low-friction, load-bearing surface for joints. It contains no nerve fibers.

SURGERY FOR KNEE OSTEOARTHRITIS

Knee Replacement is the final solution for severe end-stage osteoarthritis that has failed other treatments.

Partial Knee Replacement is a good solution for older patients with osteoarthritis limited to the medial side of the knee.

Osteotomy is a technique of realigning a knee with osteoarthritis limited to one compartment in the younger patient.

Arthroscopy for osteoarthritis unfortunately will not help, unless the OA is mild and another problem, such as a meniscal tear or loose body exists. If you have a small focal area of joint damage, a marrow stimulation or chondral transplant is an option.

