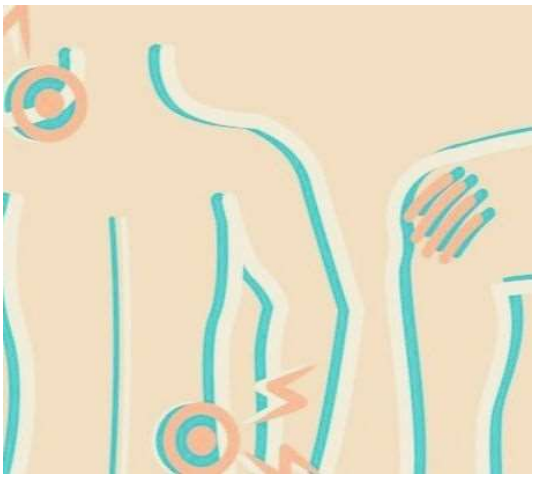
PHYSIO TIPS
IN SEPTEMBER

OSTEOARTHRITIS

THERAPY IN ACTION

Physio Tips is a monthly newsletter aimed at educating the public regarding the latest evidence in injury management, without all the medical jargon. We will keep it simple and concise, but full of knowledge gems in order to empower and equip you.

Arthritis is an umbrella term used to describe inflammation of the joints. The two most commonly known types of arthritis are osteoarthritis (OA) and rheumatoid arthritis (RA). The main difference between the two is that rheumatoid arthritis is an **autoimmune disorder,** which means your body attacks itself, whereas osteoarthritis is a **degenerative joint condition**. A diagnosis of OA can often be scary, as we are told our joints are wearing out. This can result in fear of using our joints. In this month's newsletter we are sharing good news about the latest research surrounding this very prevalent health issue.



Quick facts about OA

- OA is the most common form of arthritis and it affects 9.6% of males and 18% females over the age of 60 worldwide.
- The most commonly affected joints are the knees and hips.
- X-ray findings in OA usually do not match levels of pain experienced by an individual.
- Exercise and education are the number one treatments for OA!
- Surgery is not always a magic wand and usually not necessary

Myths surrounding OA

Over the years a lot of misconceptions regarding OA have developed. One of these is that mechanical load is the main cause of thinning cartilage and OA. Although mechanical causes are possible, this is usually limited to extreme deformities or previous severe trauma to a joint. In most cases thinning of the cartilage that cover the bone ends is caused by an increased production of inflammatory chemicals which, over time, make the cartilage weaker. The release of these chemicals can be triggered by an injury, genes, diet, weight gain - it is not triggered by mechanical load.

Why is OA painful?

Various structures in a joint can become sensitive when there is less cushioning and increased inflammation. Cartilage itself however does not have receptors capable of producing pain, but the periosteum (bone lining) and synovium (joint lining) do. So the pain we feel is not caused by damaged structures and therefore permanent, but should rather be viewed as a modifiable symptom that is related to sensitized knee structures. Not everyone with knee OA will develop these painful processes, and they often resolve within a few weeks/months.

Risk factors for developing OA

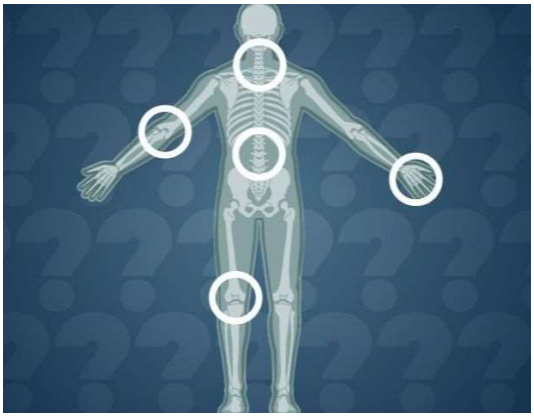
- Age – OA occurs more frequently as we age.
- Obesity and Diabetes - both these cause higher levels of inflammation in our bodies and can therefore facilitate the development of OA.
- Gender – OA is more common in women
- Injury – Significant injury, or repetitive injury, can eventually lead to OA
- Heredity – Various genetic factors influence the chemical balances in our bodies

Symptoms of OA

- Joint aching and soreness.
- Pain and stiffness after overuse, later in the day or after long periods of inactivity.
- Joint swelling, warmth and/or creaking.
- Progressive OA can lead to deformities in the joints
- Symptoms can be intermittent. It is not unusual for patients with OA to have years of pain-free intervals between symptoms.

How is OA diagnosed?

Blood tests are performed to exclude diseases that can cause secondary OA, as well as to exclude other arthritis conditions. Diagnosis is mostly made based on symptoms and joint assessment. At times, healthcare professionals may use X-rays to confirm OA, however this is seldom necessary and certainly does not reflect the person's experience of pain. We now know from many research studies that people can show severe degenerative changes on an X-ray and experience absolutely no pain!



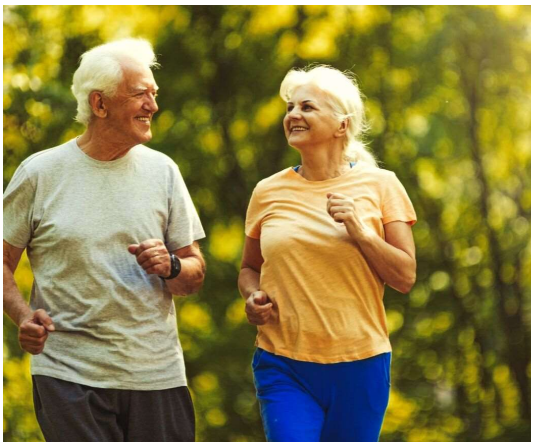
Despite a diagnosis of osteoarthritis, the majority of people can live an active, happy life. Although there is no cure for osteoarthritis yet, there are different treatment options and management guidelines that will allow you to continue with what matters to you.

Exercise and straying strong

Research advocates exercise as the best treatment option for OA and regards it as the most important intervention. You are not wearing your knee out when you exercise, but rather reducing your inflammation levels and making your joints stronger - no wonder studies show that even vigorous exercise can be joint protective. This means you can (and should!) still do the activities that you enjoy, be it walking, golf or jogging. A pain level of 3 out of 10 is usually a good guide that you are still in the safe zone - pain does not imply that you are doing harm. A combination of aerobic, strengthening and balance exercises is ideal.

So running is safe?

This is another myth that has developed based on the idea that mechanical load is the main cause of OA. Since we now know inflammation is the main cause, adding load to the joint is not implicitly a bad thing. Research has shown that running can prevent people from getting OA, and that it can be a safe form of exercise for people with existing OA. You might not become a comrades athlete, but you can certainly run within your acceptable pain levels without worsening your OA.

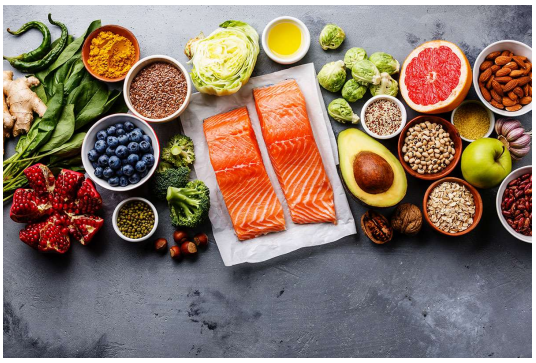


Being informed

When we believe that OA is due to irreversible structural damage, we may be lead to think that the only solution would be to fix the damage surgically. It is therefore very important to understand the truth about OA and what the research recommends. Once you are convinced that it is safe and beneficial to exercise, education on how to do this gradually and sensibly is also very important. Your physiotherapist can certainly help with this.

Weight loss

Studies show that losing 5% of body weight can improve pain and mobility. And it's not because the load on the joint are being reduced. Fat cells produce proteins that fuel inflammation in your body and joints. Less fat means less inflammation and therefore less cartilage thinning and less pain. Losing weight is hard, but even small changes to your lifestyle can move the scale in the right direction.

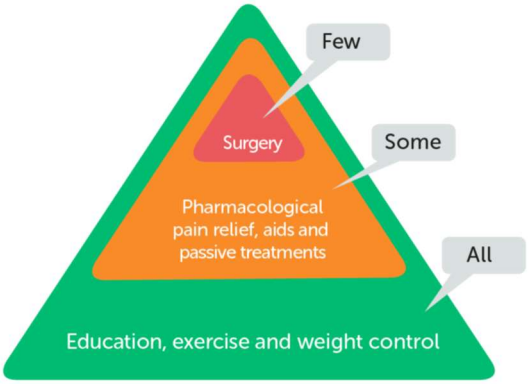


An "inflammation-friendly" diet

Foods that increase inflammation can contribute to joint pain and cartilage damage. These include sugar, refined carbohydrates and processed foods. Instead, focus on foods rich in Omega-3 which reduces inflammation, like fish oils. Sometimes it might be necessary to seek professional advice on how to manage your inflammation levels - especially if you have diabetes

Other interventions

If exercise and lifestyle changes alone are not successful in relieving symptoms, **supportive devices** may be useful. These include knee sleeves, wrist braces and custom made splints for hand joints. Walking sticks can also be useful for knee and hip OA. **Pharmacological approaches** are great to assist in reducing pain and swelling during acute flare-ups (anti-inflammatories like ibuprufen and naproxen), but there is no evidence to support medications that claim to reverse joint degeneration. Heat and ice can also provide significant relief - use whichever one feels good.



Surgery

Surgery is generally reserved for those patients with OA that is particularly severe and unresponsive to conservative treatments. Arthroscopic procedures to 'clean' the joint are often no better than placebo. Joint replacement surgery is therefore the procedure of choice in severe cases. The success of surgery also relies on good rehabilitation afterwards. Remember that only YOU decide whether you need surgery. A surgeon cannot insist on surgery based on bone-on-bone changes on you scans - the decision should be made on how badly your OA is affecting your quality of life, and weighed up against the risks associated with surgery.

If you still have questions, your physiotherapist can help assess you and together you can come up with a comprehensive treatment plan for you to live well with OA! For more valuable information, read these wonderful blogs by Dr. Howard Luks:

Exercise and knee OA

Thriving with knee OA

YOU CAN (AND SHOULD) LIVE AN ACTIVE LIFE WITH OA

WATCH THIS SPACE FOR PHYSIO TIPS IN OCTOBER

Topic: Myths and truths surrounding DISCS

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