



# WHAT IS OSTEOARTHRITIS?

Luke Dorizas

Exercise Physiologist

B. Sci (Health and Exercise)

AEP ESSAM

Accredited Exercise Physiologist

Level 1 Strength and Conditioning ASCA

*Osteoarthritis is the most common inflammatory joint condition which effects our joints as we age..*

THE MOST COMMON SITES OSTEOARTHRITIS IS FOUND TO INCLUDE, BUT NOT LIMITED TO, THE KNEE JOINT, HIP JOINT, SHOULDER AND HANDS. The condition most commonly affects older adults and is characterised by a deterioration of the joint over time due to natural processes or due to a direct injury which can damage the cartilage and lead to loss of joint space.

Osteoarthritis is diagnosed by your GP or specialist based the symptoms you are experiencing and an image such as X-Ray or MRI. With the diagnosis however, the joint image on scan doesn't always correlate to the level pain. Some people with images that show minor/less degeneration, have more pain than those with images showing more degeneration and vice versa. It is therefore important to discuss with your GP or health specialist as to when you feel pain and what may or may not be exacerbating it too to help manage it better.

## How does exercise help?

A comprehensive review of exercise programs for patients with Osteoarthritis was published in the British Medical Journal in 2013(1). The review focused on at what types of exercise would be best for both pain reduction and improvement of function. The studies were mainly focusing on the knee, with a small number also looking at the hip joint.

In terms of **pain reduction**, the most effective exercises were:

- Aquatic strengthening combined with aerobic flexibility exercise, but very closely followed by patients who completed strength exercises alone.

In terms of **improvement of function**, the most effective exercises were:

- A combination of strengthening, flexibility and land aerobic exercise were equally as effective as just aquatic strength and land aerobic exercise.

The review concluded that exercise is **significantly better for patients than staying sedentary**.

The other main benefits of exercise for osteoarthritis include:

- Improved muscle strength
- Improved range of motion
- Improved balance
- Improved well being

The exact mechanisms of the pain reduction are unclear, however some hypothesised include:

- Improved support of joints through surrounding muscles
- De sensitisation of pain in the joints and surrounding muscles
- Improved blood flow and lubrication(fluid) of the joint during exercise

*Reference: "Exercise for lower limb osteoarthritis: systematic review incorporating trial sequential analysis and network meta-analysis" Uthman O, Van der windt D, Jordan J, Healey E, Peat G, Foster N, British Medical Journal, (2013) 347*