

# Best Management for Knee Osteoarthritis?

## What is Osteoarthritis?

Osteoarthritis (OA) is a common aged related condition which sees the joints between the knee narrow. In osteoarthritis, the cartilage in the knee joint gradually wears away. As the cartilage wears away, the productive space (free space) between the bones decreases. This causes a narrowing in the joint space of the knee which can result in stiffness and discomfort when bend and extending the knee<sup>2</sup>.

The symptoms associated with osteoarthritis include:

- Joint stiffness and swelling; this usually make it difficult to bend and straighten the knee.
- Pain and swelling may become worse in the morning or after sitting for a prolonged period.
- A feeling of weakness in and around the knee joint.

## Who is at risk of knee osteoarthritis?

- Obesity or being overweight
- Previous history of surgery or trauma
- Joint hypermobility or instability
- History of immobilisation
- Family history
- Sports that involve repetitive high impact loading.

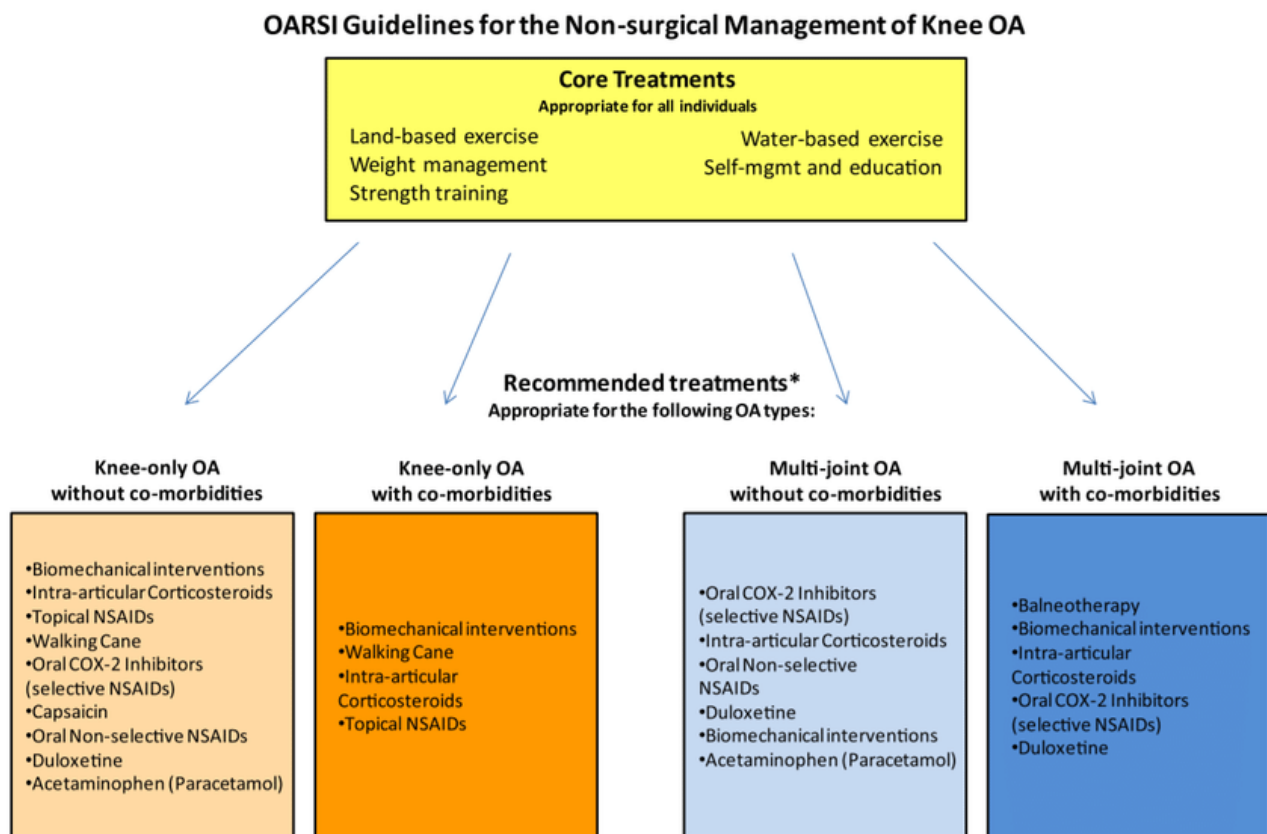
## Best medical management for knee OA:

As seen in the table below, weight loss (weight management), strength training, land based, and water-based exercises have been proven to

<sup>1</sup> T.E. McAlindon et al., OARSI guidelines for the non-surgical management of knee osteoarthritis, Osteoarthritis Research Society International, 2014, 22: 363-388

<sup>2</sup> Conaghan, P. G., Dickson, J., & Grant, R. L. (2008). Care and management of osteoarthritis in adults: summary of NICE guidance. *Bmj*, 336(7642), 502-503.

be the most effective way to manage and improve the physical function of an individual who is diagnosed with knee OA<sup>1</sup>.



## What role does exercise have in the management of knee OA?

Strength and land-based training is vital in the management in knee OA has it helps strengthen the muscles around the knee which leads to less pressure and force being placed directly on the knee joint<sup>1</sup>.

Strength training can also assist in reducing an individual's body weight which leads to less weight being placed on the affected knee joint<sup>1</sup>.

Exercise is also effective in pain management and improving an individual's physical capacity (e.g. increasing strength, aerobic capacity and ability to perform everyday activities)<sup>2</sup>. To ensure the exercises are performed correctly, exercises interventions should be supervised by a health care professional (e.g. exercise scientist and/or exercise physiologist)<sup>2</sup>.

1 T.E. McAlindon et al., OARSI guidelines for the non-surgical management, of knee osteoarthritis, Osteoarthritis Research Society International, 2014, 22: 363-388

2 Conaghan, P. G., Dickson, J., & Grant, R. L. (2008). Care and management of osteoarthritis in adults: summary of NICE guidance. *Bmj*, 336(7642), 502-503.