

The Active Life

A regular column by chartered physiotherapist Nicola Bolger



Osteoarthritis: is there another option to surgery?

OSTEOARTHRITIS is a serious joint disease that leads to reduced life quality and it is estimated that by 2020 it will be the fourth leading cause of disability worldwide. The symptoms affect 10-18% of adults over the age of 60 worldwide, with 80% experiencing movement restrictions and 25% unable to carry out normal daily activities. The prevalence of knee OA is rising due to increasing life expectancy and certain risk factors, in particular obesity.

OA is a type of joint disease that results, basically, from the breakdown of joint cartilage and underlying bone. The main symptom is joint pain and stiffness, which initially may occur after exercise but over time becomes more constant. Other symptoms include joint swelling and decreased range of movement.

It is diagnosed clinically if the person is over the age of 45 years, has persistent knee pain that is most likely related to activity, knee stiffness that doesn't last more than 30 minutes and reduced knee function. They may have crepitus (grating sensation seen in more severe cases), restricted joint range of movement and bony enlargement. However, there are always atypical presentations, therefore, seeing a healthcare professional before self-diagnosis is always recommended.

In today's society, the treatment options available are plentiful, but varied. These include physiotherapy, exercise therapy, weight loss, biomechanical devices (such as knee braces, insoles), TENS, acupuncture, dietary supplements, medications (opioids, anti-inflammatories), intra-articular injections (platelet-rich plasma, stem cell therapy, corticosteroids and so on) and surgery (arthroscopy, osteotomy, knee replacement).

The Osteoarthritis Research Society International (OASRI) and the National Institute for Health and Care Excellence (NICE), based in the UK, have published well-researched guidelines on how to manage OA conservatively. These groups have found that there are several core treatments that are most effective in the non-surgical management of OA, in particular knee OA. These guidelines have been supported with this year's



publication by the Royal Australian College of General Practitioner's (RACGP) on a guide for managing hip and knee OA, which strongly warns against surgery unless it is a last resort.

The current internationally supported recommendations for management of knee OA include:

Land-based exercise. It has been suggested, irrespective of age, pain, co-morbidities or disability, that exercise should be prescribed to individuals with OA as a treatment option. Even though exercise has been shown to be effective, the actual participation is low. The research for an exact exercise programme does not favour any specific exercise regimens over another, however, if it includes strength training, range of motion exercises and aerobic exercise you are on to a winner. In the case of knee OA, this would mean, at a minimum, you should be strengthening your quadriceps

muscles (thigh muscles) three to four times a week and spending some time on a stationary bike.

Weight management. For individuals who are obese or overweight, this is a definite core treatment. The research suggests that losing 5-7.5% per cent of body weight needs to be achieved for this treatment to be effective. Losing weight has shown in knee OA to significantly reduce pain and disability.

Strength training. These programmes primarily incorporate resistance-based lower limb and quadriceps strengthening exercises.

Both weight-bearing and non-weight-bearing can be used, which can be completed at home or in a gym environment.

Water-based exercise. This type of activity can be effective for knee and hip OA, as it is shown to improve an individual's daily function, however, only small

benefits for pain.

Self-management, i.e. CBT, focuses on challenging and changing unhelpful thoughts, beliefs, attitudes and behaviours while developing personal coping strategies to solve the problem.

In a nutshell – exercising, in particular strengthening exercises, help maintain and improve muscle strength. Stronger muscles support and protect the joint affected by OA. It is a continuous cycle – stronger muscles mean less pain in joint and less pain in joint reduces the secondary muscle atrophy. Osteoarthritis is a progressive disease and for a lot of individuals they may eventually require surgery, however, it should only be as a last resort. There are a lot of people who have delayed by several years after employing the strategies suggested above. In addition, they had less pain, reduced use of joint-related pain-

killers and increased levels of physical activity.

Tips for osteoarthritis

See a chartered physiotherapist to have a full assessment and correct diagnosis. They can provide you with a simple exercise programme that will fit in with your daily schedule to help strengthen your joints. Your chartered physiotherapist will be able to liaise with other allied health professionals to ensure that you get all the care required, that is, GP, dietician, psychologist

See a dietician to discuss a weight loss programme or strategies.

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