



East Gosford
Physiotherapy
& Exercise
Physiology



UNDERSTANDING OSTEOARTHRITIS

Management and Exercise Advice –
How to Exercise safely and live with Arthritis.

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What is Osteoarthritis (OA)?



Osteoarthritis is a “wear and tear” disease of the joints that causes joint pain, stiffness and swelling. It is a condition which affects the bone, cartilage, ligaments and muscles, and can lead to a deformity and bony changes in the joint.

Usually, symptoms come on slowly but get worse over time. Osteoarthritis may occur in any joint but is most seen in the hip, knee and small joints of the hand. It is more common in older people but can affect younger people as well. The symptoms vary from person to person and can include persistent pain and problems with joint movement.



What Causes Osteoarthritis?



Remember osteoarthritis is wear and tear in the joint, so any injury that causes some damage around a joint can contribute to osteoarthritis however it can occur in different joints for different reasons.

The following factors have been recognised as causes:

- Being overweight
- Past injury or recurrent injury
- Heavy lifting jobs
- Poor posture
- Excessive squatting or working in the end of range of a joint
- Family history (genetic factors)
- Repetitive actions over a long period of time
- Chronic or persisting muscle weakness or tightness around a joint



How is Osteoarthritis diagnosed?

Osteoarthritis is diagnosed by its clinical presentation by health professionals, based on symptoms of joint stiffness and pain together with a physical examination.

With hip osteoarthritis for example, morning stiffness and loss of hip joint rotation are early indicators. This is followed by pain on weight bearing, often seen in walking and prolonged standing or fatigue with exercise, as the muscles will often weaken with arthritic changes around a joint.

Furthermore, X Rays, CT scans or MRIs can be used to confirm these findings and your physio or doctor will decide if imaging is necessary, as often a clinical diagnosis is sufficient for initial management.

An interesting but confusing fact is that often changes seen on X-ray or MRI do not always correspond with the pain that you may feel. Therefore, it is important to make the diagnosis with the findings from a physical examination and use imaging to confirm these findings, especially if surgery is being considered.



How do we treat Osteoarthritis?

Treatment for osteoarthritis will depend on the severity of the disease and what joints are affected. Strangely some treatments that work for some people may not work for others and it's best to trial some different treatments to see what works best for you.

Your GP or physio will help you with this process as it often involves a number of treatments at the same time -for example both medication and exercise.



The following list is a summary of the more conventional noninvasive treatments available-

- A specific exercise program designed for your type of arthritis and disability
- General active lifestyle management -simple regular exercise like swimming, walking, bike riding
- Medication eg nsoids or pain killers
- Pain management strategies- helping you to think differently about pain and movement
- Devices to help “unload” the joint involved eg braces, orthotics, walking stick etc.
- Diet advice to help with weight management, but also to know what foods may make your arthritis worse
- Weight loss management to help unload the joints
- Physiotherapy techniques which improve joint function and range of movement like mobilisation and massage
- Heat application to warm up the joint involved, like wheat packs
- Hydrotherapy or aquatic physiotherapy- specific exercise and movement in a warm pool
- Topical creams and rubs- medicated or herbal eg fisiocrem



The following invasive treatments are available discuss these options with your physio or GP)

- Cortisone injections into or around the joint
- Injections of hyaluronic acid (lubrication injections into the joint)
- Joint replacement surgery when more conservative management becomes less effective

What can I do to manage my Osteoarthritis?

- See your physio or GP for assessment and to develop a management plan.
- Remember your physio and GP often work together to offer different but complementary treatments and skills
- Use exercise to maintain flexibility and strength around your joints
- Maintain good sitting and standing posture
- Educate yourself about your type of arthritis and treatment options
- Maintain a healthy weight range



- Stay active and Keep Moving (**East Gosford Physio** has an exercise class called **Keep Moving**, which is a brain, balance and strength class for people over 55 and is an ideal way to exercise safely with arthritis.)
- Learn ways to manage your pain including relaxation and gentle movement
- Keep your life balanced with rest and exercise as too much of either can be a problem
- Sleep well and manage your stress
- Use medication as advised by your GP
- Use aids to help with everyday tasks to take stress off your joints

WHY SHOULD I EXERCISE?

Pain can make people avoid activity. This may lead to muscle weakness and feelings of joint instability. Avoiding activity and becoming sedentary in your lifestyle is a major risk factor for other diseases such as obesity, diabetes and heart disease.



Staying active and keeping muscles strong prevent you from declining into this type of downward spiral. Hence exercise is one of the most important treatments for Osteoarthritis. All Osteoarthritis clinical guidelines recommend exercise as an important part of keeping joints moving and healthy.

Recent research indicates that exercise can relieve Osteoarthritis symptoms of the knee and hip just as effectively as pain medications, but it is safer and has fewer side effects.



The benefits of exercise are many- including feeling less pain, maintaining a healthy weight to reduce the load on painful joints, improving function and having overall better general health.

A growing body of empirical research suggests that exercise also has long-term effects on our general wellbeing. Improvements in mood and wellbeing have been reported by regular exercisers in both clinical and non-clinical populations and with most types of exercise.

People suffering from Osteoarthritis need to find the right amount of exercise they need to stay healthy and improve joint health. Too much exercise will aggravate pain and stiffness, but too little exercise will be more detrimental, and you will become stiff from lack of movement.



East Gosford Physiotherapy can advise you on the right amount and type of exercise that keeps you fit and healthy while managing your arthritis.

BENEFITS FROM EXERCISE FOR OSTEOARTHRITIS

- *reduce pain - exercise increases the lubrication to the cartilage of the joint, thus reducing osteoarthritis symptoms of pain and stiffness*
- *strengthens muscles - exercise strengthens the muscles around the joints to protect them and provide [extra] support*
- *improving balance –increase in overall strength of muscles will help improve coordination of postural and core muscles which leads to better control of your body and may help prevent falling.*
- *lose weight or maintain a healthy weight to reduce the load on sore joints*
- *prevent deconditioning (loss of fitness and muscle wasting)*
- *improve ability to do daily tasks*
- *improve wellbeing, sleep, and mood*



WHAT TYPE OF EXERCISE IS BEST TO HELP OSTEOARTHRITIS?

A combination of the following forms of Exercise is the best management plan.



Strengthening Exercises

Strengthening exercises can be performed at home or at the gym. Strengthening muscles of the hip, knees and ankles will enable them to take load off the joints and support the joints more effectively. It can also improve balance and reduce the feeling of giving way.

Exercises can be done using bodyweight or external resistance such as weights or bands. For example, in knee OA, you can strengthen your quadricep muscles by doing bodyweight squats and lunges, gym based exercise machines or resistance bands.

Aerobic Exercise

Aerobic exercise is a type of exercise that is done at a fast pace and typically increases your heart rate and breathing rate (makes you a bit puffed).

This type of exercise can help you sleep better, burn calories for weight management and increase your energy levels. It may also help release pain relieving hormones, called endorphins, which can temporarily reduce your joint pain. Care needs to be taken with aerobic exercise so that you don't overload your joints, but with the right advice this form of exercise can be safe and helpful.

Stretching Exercise

Maintaining mobility in your muscles and around your joints can help to unload the arthritic joint and reduce pain. A good dynamic stretching and movement exercise program is recommended to manage the effects of stiffness and tightness which can result from osteoarthritis or simply from aging!



Aquatic Exercises or Hydrotherapy

Exercising in warm water or hydrotherapy is a safe and gentle way to move your joints. These are particularly helpful for people just beginning to exercise as well as those who are overweight. Aquatic exercises do not involve swimming, rather they are performed while standing in about shoulder-height water. The water's buoyancy helps relieve the pressure of your body's weight on the affected joints (hips and knees in particular), while providing resistance for your muscles to get stronger. Pools that are designed for people with arthritis are often kept at much warmer temperatures than recreational pools and may have specialized access ramps to make entrance to the pool easier.

East Gosford Physiotherapy offers a **hydrotherapy program** available at the Central Coast Council's Gosford Hydro and Olympic Pool. Other types of beneficial exercise include tai chi, balance exercises and stretching and flexibility exercises to improve the range of motion of joints and muscles.

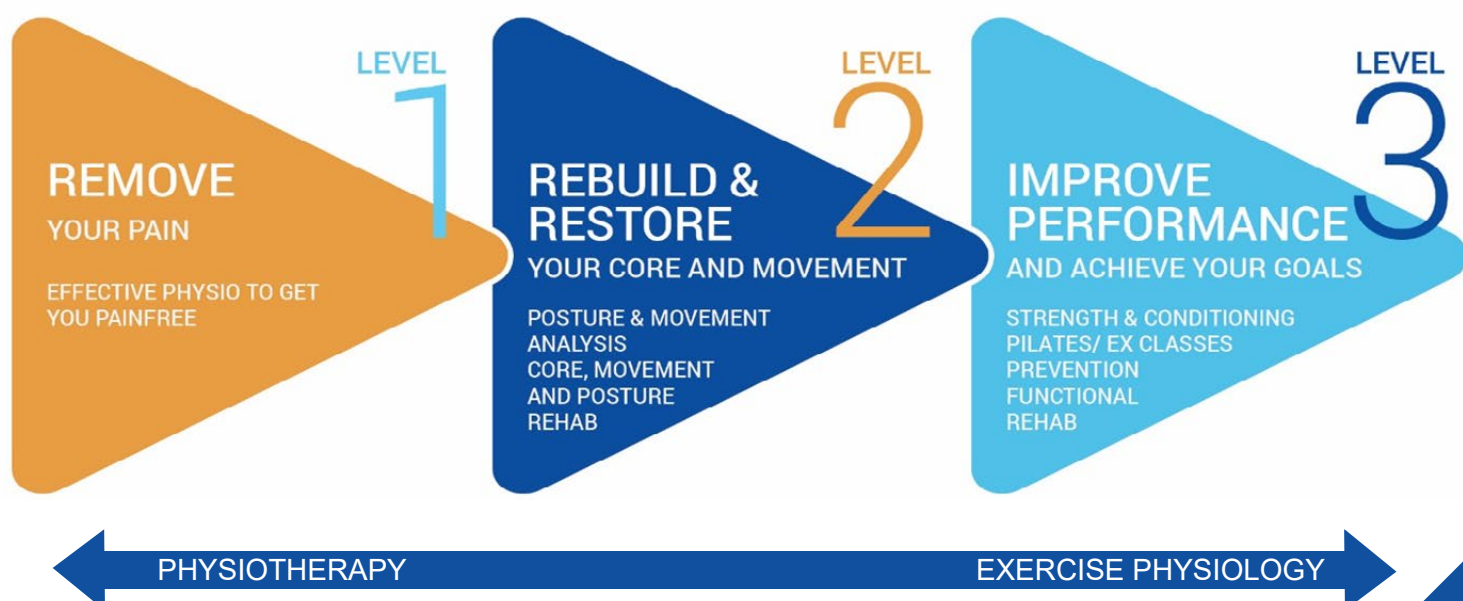
East Gosford Physiotherapy offers a number group exercise classes including Pilates, Yoga and 'Keep Moving' which is a brain, balance and strength class

How can East Gosford Physiotherapy help you manage your Osteoarthritis?

East Gosford Physiotherapy and Sports Injury Centre has highly trained physios and exercise physiologists to help you manage your osteoarthritis.

We thoroughly assess your arthritic condition and look at causing or lifestyle factors and from there develop a treatment plan.

We can offer hands on treatment to remove pain and improve muscle and joint tightness and provide you with specific exercises to manage your condition



The above diagram shows you our philosophy and how we aim to take you through the stages of managing your osteoarthritis and to help you achieve your goals. Our first and main focus is to remove your pain, then we move on to removing the factors that contribute to your problem. From this foundation we can focus on helping you improve your performance in simple activities in your life like house work and gardening, or in your ability to resume sporting pursuits like golf and bowls - so we can help you achieve your goals .

POINTS TO REMEMBER

- *Exercise can relieve Osteoarthritis symptoms of the knee and hip as effectively as pain medications but is safer.*
- *Exercise must be performed in a safe and effective way and should be prescribed for your individual needs and requirements.*
- *Our physios and exercise physiologists at East Gosford Physio are here to help you and can specifically advise you about exercise.*



TIPS

- When starting any new physical activity program, take it slowly and progress gradually.
- It is normal to experience some pain during exercise when you first start. If there is a major increase in pain levels when you're exercising, the program needs to be modified. Make sure you consult your physiotherapist before making modifications to your programs.
- Losing weight by modifying your diet can help reduce your pain and improve the outcomes of your exercise program.
- We recommend you talk to a dietician about how to modify your diet to achieve your goals. Ask us to recommend a dietician.



The following is a general guide to food and arthritis and makes some suggestions about what to eat and what not to eat from the Harvard Medical school.





What to eat

- Omega-3 fatty acids from cold-water fish, such as salmon and tuna
- Beans
- Flaxseeds
- Walnuts
- Green leafy vegetables
- Canola and olive oil
- Green tea
- Margarine and butter

What to limit

- Omega-6 fatty acids from red meat
- Fried and processed foods
- Packaged cookies, crackers, baked goods, and other processed, sugary foods
- Fruit juice



Contact us -

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