OSTEO ARTHRITIS

We Are Here To Help!

ARTHRITIS FOUNDATION OF SOUTH AFRICA
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SARAA
South African Rheumatism & Arthritis Association

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INTRODUCTION

This booklet aims to help people who have osteoarthritis, and their families and friends. It helps you understand osteoarthritis - how it develops, and how to deal with it. It also puts to rest some of the myths about this common condition.

The booklet first explains the facts about osteoarthritis and gives hints and advice on living with it more easily. It then answers some common questions.

WHAT IS OSTEOARTHRITIS?

Osteoarthritis (OA) is the most common form of arthritis. There are many causes of OA but it also occurs as we get older and is often incorrectly seen as a purely degenerative condition and referred to as 'wear-and-tear' arthritis. It may be completely asymptomatic and found incidentally on an x-ray or may cause significant symptoms in affected patients. OA is a leading cause of disability in many countries around the world.

Arthritis is the term that is used to describe a condition that affects a joint. There are many structures around a joint that can cause pain and the starting point of evaluating a person complaining of pain in the area of a joint is to establish if the problem is due to the joint or another structure.

WHO GETS OSTEOARTHRITIS?

Generally, it occurs in a middle-aged or older person, but it can occur in a person of any age if there has been some cause or damage to a joint.

SYMPTOMS OF OSTEOARTHRITIS?

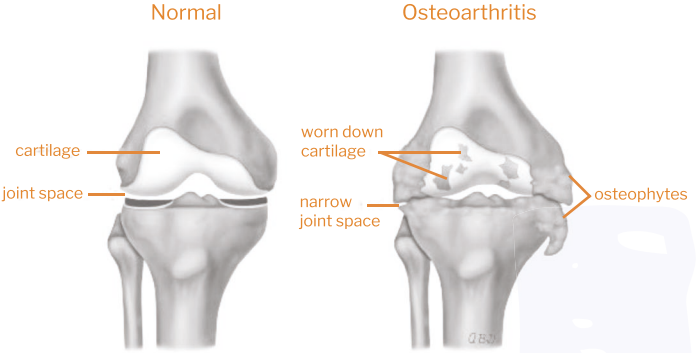
The main symptoms are joint pain, stiffness and limited mobility in the affected joints. This can lead to other problems such as muscle weakness and feeling unsteady with walking. Pain related to OA is made worse on using the joint and gets better with rest. The stiffness associated with OA occurs after being immobile for a period of time, or in the morning when getting up. It is referred to as "gelling" as it will get better quickly after some movement.

WHAT A PERSON MIGHT SEE OR EXPERIENCE IF THEY HAVE OSTEOARTHRITIS

There may be some swelling of the affected joints which can feel either soft or hard depending on what is happening in the joint. Deformity or change of the alignment of the joint may occur if there is significant damage to the joint. The joint may also become unstable in some instances, and it may feel as though it is “giving way” at times. This is particularly true for OA in the knee.

WHAT HAPPENS TO THE JOINT WITH OSTEOARTHRITIS?

Joints are there to allow movement of the body with a highly specialised material called cartilage, that covers the ends of bone that allows movement and protects the underlying bone. OA is characterised by loss of cartilage and the resultant changes that occur to try to mitigate this loss. There can be inflammation present which is the body’s reaction to what is happening and can cause swelling of the soft tissues in and around the joint. With loss of cartilage, the body will produce extra bone at the sides of a joint called osteophytes that look like spurs or growths. The definitive diagnosis of OA is made on an x-ray showing that loss of cartilage has occurred. This is seen as a narrowing of the joint space and can also show the osteophytes and other changes in the bone under the joint. There are different grades of osteoarthritis that will be reported as minimal changes being seen to the joint to total loss of the joint space.



WHAT CAUSES OSTEOARTHRITIS?

Age

As mentioned above OA is associated with getting older. In most older people there will be some signs of OA if an x-ray is done of a joint. This is known as primary osteoarthritis.

Other Joint Diseases

If a joint has been previously damaged by a different form of arthritis such as rheumatoid arthritis or gout, OA will occur as a reaction to this damage. This is known as secondary osteoarthritis.

Mechanical Factors

If the supporting structures of joints such as the ligaments get damaged, it can result in the joint developing OA. If these injuries are not treated adequately and there is some instability of the joint, it can lead to OA. Being overweight can also put more strain on particularly the knee joints and knee OA is more common in overweight individuals. Hip OA is often associated with a change in the shape of the joint which can be something the person is born with.

CAN REPEATED USE OF A JOINT CAUSE OSTEOARTHRITIS?

Repetitive use of a particular part of a joint can possibly lead to OA, but in general even people who do a lot of manual labour don't necessarily get OA due to this, unless there is some injury involved. Intense sport that puts abnormal stress on a joint such as the hips of top soccer players, can cause OA, but recreational sport does not lead to OA unless there is a pre-existing underlying biomechanical problem with a joint.

JOINTS AFFECTED BY OSTEOARTHRITIS AND SPECIFIC FEATURES OF INVOLVEMENT AT THOSE JOINTS

Osteoarthritis accurs most commonly at the following sites:

Hands

This type of OA is often seen in families and is more common in women than in men. It affects the joints at the ends of the fingers, the distal interphalangeal joints or the proximal interphalangeal joints (the joints in the middle of the fingers). There may be soft swelling of the joints, but there are often hard lumps around the joints. These are the osteophytes around the bones. There can also be a change in the shape of the fingers with a twisting or sideways bending of the bottom part of the finger. The wrist is not affected by osteoarthritis.

Carpometacarpal Joint of the Thumb

Carpometacarpal joint of the thumb is the joint at the bottom of the thumb. There is pain at the bottom of the thumb which can lead to a feeling of weakness of the hands. The shape of the hand can change with the thumb looking like it's moved into the palm of the hand which gives the hand a squared look.

Knees

Loss of cartilage can happen on the one side of the joint or the other, or it can affect the joint between the kneecap (patella) and the knee (patellofemoral joint). There can also be a change in alignment of the joint with the bottom of the leg going in- or outwards.

Foot

OA occurs in the joint at the bottom of the big toe and in the middle of the foot. The big toe OA can cause the toe to deform outwards to cause a so-called bunion on the inside of the foot.

Spine

The back and neck are commonly affected by OA as there are many joints in the spine but there are several other structures there that can cause pain. The spine is made up of bones or vertebrae that are block-like pieces of bone with joints behind them where there are bony processes that protect the spinal cord (all the nerves for your body). The joints in the lower back are most commonly involved. This is often accompanied by loss of height of the intervertebral discs or cushions between the vertebral bodies. There can be local pain and stiffness in the back but there can also be referral of pain because of nerves being affected by what is going on in the back.

HOW IS OSTEOARTHRITIS DIAGNOSED?

OA is diagnosed on what the patient tells the doctor in terms of symptoms as well as an examination. An x-ray will confirm the diagnosis and give an indication of the degree of damage to the joint. There are no blood tests that will show that there is OA in the joint, but should be done if there is any reason to suspect a different condition and before prescribing any medication.

THE COURSE OF OSTEOARTHRITIS

The course of OA depends on which joint is involved. On the whole, the patient will have times when the joint symptoms flare up and times when they're much better. In large joints, such as the knees, this can occur when there is some trauma to the joint, even minor trauma. There can also be a flare of pain in the joints such as the knee due to crystals in joints, or in the soft tissues, such as tendons around the shoulders. These are not the same crystals as those associated with gout but are formed in damaged cartilage or soft tissue. Some people will complain that eating certain foods will cause an increase in joint symptoms, but this usually only causes symptoms for a short time. In some people, OA will progress to needing surgery such as joint replacement. In other people the damage seems to just stop. Many people with signs of advanced damage on x-rays have minimal symptoms. OA of the hands usually starts in a person's 40s or 50s and symptoms often decrease later in life.

HOW IS OSTEOARTHRITIS TREATED?

The goals of treatment of OA are to relieve symptoms, as well as to preserve and optimise function. A lot of research is being done into finding some treatment that will slow down or stop the progression of the disease, but there still is no such treatment.

Non-pharmacologic management:

Several non-pharmocologic modalities can be used to improve symptoms and joint function. Most people with osteoarthritis will have symptoms that tend to vary. At times the symptoms can be severe, but can settle again and even disappear. Not everyone with OA will have disease that progresses to needing surgery.

Physical modalities:

Heat or cold

can be used to improve symptoms, whether used as something put directly on the area, or by getting into hot or cold water. Heat is usually used for chronic or longstanding symptoms, and cold for acute symptoms. Care must be taken with a direct heat or cold source as it can burn the skin. Heat can be used before an exercise session to relieve pain and reduce stiffness.

Reducing loading on a damaged joint

Anything that increases the stresses or loading on a joint affected by OA should be avoided if possible, and joints should rather be protected. This can be done by improving the biomechanics or unloading a joint.

For example:
Reduce weight to help with knee OA. A force of four or five times the body weight is transmitted through the knees with normal walking. With every kilogram of weight loss , there will be a benefit to the knees.

Modify activities that put too much strain on joints. If hands are painful when gripping something there are various assistive devices that can help reduce stress on joints and make it easier to do things.
Use a walking stick.

Shoes need to take the shock of the body's contact with the ground and a lot of problems with the joints of the legs, and even the back, are worsened by imbalances of alignment that start with the feet. Shock absorbing shoes or insoles can improve and correct this and help symptoms.

Exercise

Exercise helps to maintain joint mobility and stability, decrease inflammation and pain as well as improve function. People should be encouraged to do physical activities rather than passive therapy. Exercise should always only be done within the limits of a person's pain. Mild discomfort is fine and not unusual during exercise, but pain should be avoided. There should also not be unusual or worsening of pain after the exercise. Specific strengthening exercises for the muscles around a joint can be done with progressively increased resistance, such as with elastic bands. Low-impact continuous aerobic exercise, such as walking, water aerobics or static bike cycling, should be done for 15 – 30 minutes, 3 – 4 times a week.

Pharmacologic treatment:

There is no one specific treatment for OA and it will depend on the symptoms that are being experienced. The aim is to reduce the inflammation in the joints if present and improve symptoms. All medications have potential side-effects, and their use must be tailored to each patient. Risks versus benefits of use are weighed up against how severe the symptoms are at that time. These can include:

Anti inflamatory medicine

A topical anti-inflammatory can work well on smaller joints. Other oral anti-inflammatory medicines can be used but it is important to remember that these can affect the stomach and if the person has kidney or heart problems they should not be used.

Analgesics or pain medicine

Paracetamol can help for joint pain. Stronger painkillers can be used in the short-term for severe or disabling symptoms when other treatments are not working well or cannot be used for some reason.

Cortisone

A cortisone injection into a joint can help for pain in a joint but this is best done when there is a flare of symptoms and there is inflammation in the joint. There is a small risk of introducing infection into the joint with an injection and repeated injections into the same joint may damage the joint further. Because of this, cortisone injections should not be done more often than 2 – 3 times a year.

Injection with hyaluronic acid

Hyaluronic acid one of the main substances found in the fluid in joints. It's thick and viscous and it's the natural "lubricant" in joints. It can be injected into a person's joint, mainly the knees and hips which can help symptoms.

Other treatment options

Supplements

There are several supplements available over the counter that claim to help for OA. Chondroitin and glucosamine help for cartilage protection. Other supplements help to reduce inflammation. A lot of this is unproven, but unlikely to cause side-effects or harm. If they help that person with their symptoms it's worth using. The use of any supplement should also be discussed with your doctor to ensure it won't interact with other medications

Surgery

There is a definite place for surgery if symptoms are intolerable in whatever way. There are several options, depending on which joint is involved, and what the degree of damage is. An orthopaedic surgeon may realign, fuse or replace a joint, but the outcome of surgery will not only depend on the surgeon's skill but on how well the person does their rehabilitation afterwards.

CAN OSTEOARTHRITIS BE PREVENTED?

Unfortunately, we can't necessarily prevent OA but maintaining a healthy weight and doing exercise to keep the muscles around a joint, or the back, strong may help to prevent OA. Consulting and working with a biokineticist or a physiotherapist it the most effective way of making sure the exercise will be helpful.

Useful Resources:

uptodate.com

rheuminfo.com

TIPS FOR ARTHRITIS MANAGEMENT

Exercise

Exercise is very important. It reduces inflammation in the body and joints and strengthens muscles to protect joints. It also improves general wellbeing.

- Do something that you enjoy!
- Listen to your body
- There can be some feeling of irritation in your joints when you exercise but there shouldn't be pain
- Balance activity and rest
- On days that you have pain do something gentle like stretching
- On awakening, do gentle stretches to keep your joints mobile
- Avoid high impact activities if they cause pain

Smoking

- Smoking can have several negative effects on people with arthritis and increase arthritis pain.
- It's also associated with increased risk of autoimmune conditions like rheumatoid arthritis and cause increased disease activity.

Medicine

- There are many types of medicines to treat arthritis. Some target the inflammation in joints and some just treat pain. Speak to your healthcare professional

Emotional health

Pain can have a negative effect on your mood and you can even develop depression. If your mood is bad, pain tends to be worse.

- It can help to use diversion techniques such as:
  - meditation
  - yoga or tai chi
  - deep breathing
  - listening to music
  - being in nature
  - writing a journal
  - adult colouring books
- Involve family, friends and join support groups where possible

Laugh sing and dance like nobody is watching you.

Physical therapies

Heat or cold can help symptoms

- Some patients prefer heat and others cold. Cold is often used for acute pain such as a sprained arthritic joint, and heat more for a chronic problem.
- Always protect from the direct effects of heat or cold.
  - **Heat:** Applying heating pads, taking hot baths or showers, or use a hot water bottle
  - **Cold** Ice packs can help lessen pain and inflammation, especially after physical activity. Always place a thin towel between an ice pack and your skin.

Massage. Massage may improve pain and stiffness in the short term. Make sure your massage therapist knows about your arthritis and how it affects you.

We Are Here To Help!

GET IN TOUCH

Email: info@arthritis.org.za

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