

## Welcome to the: Orthopaedic Opinion Online Website

The website for the answer to all your Orthopaedic Questions

- **Orthopaedic Opinion Online** is a website designed to provide information to patients who have orthopaedic and musculoskeletal problems and are undergoing treatment.
- **Patient information** is provided in the form of downloadable information sheets.
- **Orthopaedic advice** and second opinions can be provided by our expert internationally renowned Consultant Orthopaedic Surgeons.
- **Online review** of patients' X rays or MRI scans can also be provided and any proposed treatment plans reviewed.
- **Book a clinical consultation** with one of our internationally renowned consultant orthopaedic surgeons in Bristol or London.
- **Orthopaedic reports** can be provided for Injury or Accident Claims and Medical Negligence claims.

### This Patient Information Sheet is provided by Orthopaedic Opinion Online

#### Osteoarthritis

**Introduction:** Osteoarthritis (OA) is the most prevalent form of arthritis. It is second only to Cardiac disease as the cause of work disability. Increasing age has been identified as one of the factors associated with cartilage degeneration which is the origin of arthritis. It is thought that the decreasing water content of the cartilage with age is one of the causes the cartilage to degrade. Other causes include Obesity, Sport, Genetics joint alignment and Trauma.

**Anatomy/Physiology:** Cartilage is protein based substance covering and cushioning the ends of bones. The articular cartilage provides a smooth surface which spreads the load across the joint, cushions the joint against trauma, provides a smooth slippery surface. It is thought that wear and breakdown of the articular cartilage causes the bone ends to rub together causing inflammation, joint swelling and, consequently pain, in the joint and the surrounding tissues. It is more commonly associated with the major weight-bearing joints such as hips, knees and spine but may also occur in the hands, neck and shoulders.

**Indications/Symptoms:** It is important to obtain an early and accurate diagnosis of the condition in order to obtain effective treatment. Diagnosis of OA is based on examination of the history of the condition, physical examination and review of x-rays. The onset of symptoms may be slow and insidious or may be provoked by repetitive, minor or major trauma. Physically, 80% of people with OA demonstrate limitation of joint movement from pain, stiffness or swelling. Patients may experience swelling, warmth and creaking of the affected joints. This will lead to a limitation of movement of the joint and functional activities. On x-ray, a narrowing of the joint space, a lack of cartilage and production of bony spurs indicate OA. However, not all patients with OA on X-ray develop the symptoms of OA. CT or MRI scan can also identify osteoarthritis and recent developments of MRI can produce articular cartilage maps of joints.

**Treatment:** OA can never be cured, however, treatments aim to reduce pain and increase range of available movement thus enhancing an improvement in overall function and a reduction in the patient's symptoms. There are a variety of options for treatment available.

- General exercises or physiotherapy to increase range of movement.
- Postural exercises to alter biomechanical stresses across the affective joints.

- Medications- Non-Steroidal Anti-inflammatory Drugs (NSAIDS), Analgesics, Corticosteroids, Disease Modifying Anti-Rheumatic Drugs (DMARDs). Glucosamine and Chondroitin sulphate may be useful but its effectiveness has yet to be proven.
- Steroid injections into the joints.
- Heat or Cold therapies e.g. hot packs, warm baths or Jacuzzis.
- Joint protection e.g. splints, orthotics, walking aids and back supports.
- Weight-loss.
- Lifestyle modifications.

**Complications:** Some of the specialised medications may cause gastro-intestinal upsets or renal problems therefore surgery may be considered if conservative measures are not effective in controlling pain. Hip and knee joints are frequently replaced with artificial implants, other weight-bearing joints such as the shoulder, elbow and ankle can also be replaced. These procedures considerably enhance the patient's quality of life although they do carry risks as with any surgery.

**Outcome:** Management of OA with the various strategies available is the key to achieving a good outcome. Current research indicates that appropriate exercise is most beneficial strategy for treatment.

**Further information:** Further information is available in the sections on Rheumatoid arthritis, osteoporosis, knee and hip joint replacement.

Disclaimer: The views expressed in this article are not necessarily those of Orthopaedic Opinion Online or the author. The information is provided for general background reading only and should not be relied upon for treatment. Advice should always be taken from a registered medical practitioner for individual circumstances and for treatment of any patient in any circumstances. No liability is accepted by Orthopaedic Opinion Online, or the author in respect to the information provided in respect of the content or omission or for any reason or as a result of treatment in individual circumstances. This information is not for use in the USA.