

What is osteoarthritis?

Osteoarthritis, or degenerative joint disease, is the most common form of arthritis. It is estimated that 10% of Canadians suffer from this disease. Osteoarthritis affects the cartilage which is the smooth material at the end of the bone that acts as a shock absorber and allows joints to move in a smooth manner. With osteoarthritis, the cartilage breaks down and wears away. The body also lays down extra bone in the form of bone spurs along the edge of the joint. Small pieces of bone or cartilage can break off and become stuck in the joint causing it to lock. This can lead to inflammation and pain in and around the joint structures.

Osteoarthritis and Sports

In the past, there has been much debate among sports medicine experts about sporting activities that increase the risk of developing, or worsen the symptoms of osteoarthritis. Research has shown that individuals of all ages can tolerate moderate amounts of exercise without adverse consequences or accelerated development of osteoarthritis. However, extreme participation in high impact sports, especially with years of playing and at an elite level, can increase the likelihood of developing osteoarthritis. Sports that subject the body to repetitive high impact and torsional loading, such as soccer and football, increase the risk of cartilage degeneration and early arthritic changes. Other factors that may increase the chances of developing osteoarthritis include:

- abnormal joint shape or alignment
- joint instability
- muscle weakness or imbalance
- excessive weight
- excessive training
- previous injury or surgery to a joint
- age of fifty or over

So what can athletes and ex-athletes do?

Maintain an active lifestyle. Aerobic exercise, strength training, range of motion exercises and fitness walking are excellent choices. Swimming or pool running is a great choice for osteoarthritic patients as it places

minimal stress on the joints. Pilates and yoga classes increase core stability as well as range of motion and flexibility.

Correct biomechanical deficiencies such as over-pronation or spinal and pelvic misalignments. Obtain a functional assessment from a qualified sports physiotherapist or chiropractor.

Nutritional therapies that have been useful are glucosamine sulfate, omega 3 supplements and oils (from nuts, seeds and cold water fish), vitamin C for collagen formation, sulphur containing amino acids (from some vegetables, meat, poultry, fish and dairy products) for joint cartilage health, bioflavinoid and antioxidants (from fruits and vegetables, selenium and vitamin E) for their anti-inflammatory effects, improved circulation and protection against free radicals.

Alternative therapies such as acupuncture and T.E.N.S. (transcutaneous electrical nerve stimulation) have been shown effective to reduce osteoarthritic symptoms.

Medications. Medications include acetaminophen and non-steroidal anti-inflammatories such as ibuprofen or naproxen. Vioxx and Celebrex are also effective but have come under scrutiny recently due to studies showing serious side effects associated with long term use.

Surgery. Joint replacement is the most common surgery for osteoarthritis. Success rates for surgery range from 90% after 10 years to 75% after 15 years. As always, surgery should be tried only after the above conservative treatments have been exhausted.

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