

Osteoarthritis

Know the Facts & Move Beyond the Pain

What is Osteoarthritis?

- Osteoarthritis is a progressive destruction of cartilage in joints and the formation of bone at the margins of the joint^{1,2,3}
- Development of osteoarthritis is not considered part of the normal aging process¹
- Osteoarthritis is worldwide one of the leading causes of pain and disability^{1,3}
- More than 20 million people are affected in the United States¹
- Widespread condition in adults over 65 years of age¹
- More common in women over 50 years of age¹



Signs & Symptoms

- Morning Stiffness^{1,2}
- Joint Pain^{1,2}
- Swelling^{1,2}
- Loss of range of motion of one or more joints (not all joints are affected equally)^{1,2}
- Bone deformity¹
- Osteoarthritis does not always affect both sides of the body¹
- Symptoms do not always match the severity of the disease¹
- Most common affected joints: Hips and knees²

Risk Factors

- Age¹
- Severe childhood trauma¹
- Repetitive microtrauma¹
- Obesity¹

Benefits of Exercise

- Exercise is widely recommended for osteoarthritis symptom relief²
- Exercise decreases pain, increases strength, and helps to improve function²

Safety

- Always consult with your physician before starting any exercise program⁴

Exercise Recommendations

Aerobic Exercise

- Recommendation: 3-5 days per week for 20-30 minutes of moderate intensity aerobic exercise⁴
- Begin with short bouts of light to moderate exercise, slowly increasing in intensity and time to 20-30 minutes per day⁴
- Perform adequate warm up and cool down periods of 5-10 minutes⁴
- Avoid vigorous-intensity exercise during acute flare ups or periods of inflammation⁴
- Participate in activities that have low joint stress⁴
- Walking, cycling, and swimming are all activities that cause minimal stress to joints⁴



Resistance Exercise

- Recommendation: 2-3 days per week⁴
- Begin resistance exercise with low intensity weights and gradually increase over weeks to months⁴
- Perform 1-3 sets involving 10-15 repetitions per exercise⁴
- Avoid moderate to heavy resistance training during acute flare ups and periods of inflammation⁴
- Some discomfort during or immediately after exercise can be expected⁴



References:

1. O'Sullivan SB, Schmitz TJ. Physical Rehabilitation. 5th ed. Philadelphia, Penn: F.A. Davis Company; 2007.
2. Kloek C, Bossen D, Veenhof C, van Dongen J, Dekker J, de Bakker D. Effectiveness and cost-effectiveness of a blended exercise intervention for patients with hip and/or knee osteoarthritis: study protocol of a randomized controlled trial. *BMC Musculoskeletal Disorders* [serial online]. August 8, 2014;15:269.
3. Escalante Y, Saavedra J, García-Hermoso A, Silva A, Barbosa T. Physical exercise and reduction of pain in adults with lower limb osteoarthritis: A systematic review. *Journal Of Back & Musculoskeletal Rehabilitation* [serial online]. October 2010;23(4):175-186.
4. Exercise Prescription for Other Clinical Populations. Thompson WR, Gordon NF, Pescatello LS. *ACSM's Guidelines for Exercise Testing and Prescription*. 8th edition. Philadelphia, PA: Lippincott Williams & Wilkins; 2010.