



Indiana University Health

IU Health Physicians Orthopedics & Sports Medicine

Knee Osteoarthritis FAQ

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What is Osteoarthritis (OA)?

Osteoarthritis is the gradual breakdown of the articular cartilage, meniscus and bone within the knee. Osteoarthritis is typically caused by wear and tear and worsens over time but can also be post-traumatic. It most often occurs in individuals over the age of 50 but can be present in younger patients. Individuals with osteoarthritis may experience pain, swelling, stiffness and/or limited range of motion.

How can Osteoarthritis be treated without surgery?

- Weight loss, physical therapy and exercise
 - Decrease the amount of force across the knee
 - Increase range of motion and muscle strength to decrease pain and providing stability
- Brace use



- Specific brace depends on an individual's specific osteoarthritis pattern and pathology:
- Compression sleeves for effusions (Dr. Trofa's preferred brand is Nufabrx as it is infused with capsaicin, a natural anti-inflammatory)
- Off-loader braces to decrease load through specific knee compartments (medial or lateral)
- Ice
 - Nature's anti-inflammatory. Can reduce swelling and inflammation of the knee to reduce pain. Cryotherapy units that provide compression are superior to cryotherapy units alone.
- Neuromuscular Electric Stimulation (NMES)
 - NMES has been shown to help patients overcome muscle activation deficits
 - Early data shows pain relief from knee osteoarthritis
- Supplements:
 - Glucosamine and Chondroitin Sulfate oral supplements
 - Natural anti-inflammatory for overall joint health, helps reduce catabolic activity
 - Turmeric oral supplement
 - Key ingredient curcumin may reduce pain and stiffness caused by inflammation
- Oral anti-inflammatories
 - Over-the-counter pain relievers and anti-inflammatory medication can decrease pain, inflammation, and stiffness.
 - For example: Ibuprofen, Naproxen, Meloxicam, Celebrex etc.
- Injections (anticipated timeframes of relief listed below can vary widely)
 - Cortisone injection
 - An anti-inflammatory steroid injected into the joint which provides pain relief and decreases inflammation.
 - Anticipate ~3 months of relief but should not be repeated often.
 - Covered by insurance.
 - Used in Dr. Trofa's practice sparingly for acute exacerbations, not maintenance therapy.
 - Hyaluronic Injection
 - In joints, synovial fluid fills the space to allow bones to glide smoothly and to provide shock absorption and protection. A main component of synovial fluid is hyaluronic acid (HA). Osteoarthritis inhibits HA in the joint and performing viscosupplementation provides HA to reduce the symptoms of OA.
 - Anticipate ~4-6mo of relief.
 - Typically covered by insurance but requires prior authorization.
 - Used in Dr. Trofa's practice for maintenance therapy to keep patients with known osteoarthritis active.
 - PRP (Platelet-rich plasma) injection



- In a PRP injection, blood containing a high platelet concentration is drawn from the patient and injected into the affected joint. The PRP stimulates healing and reduces pain and stiffness.
- Anticipate >6 months of relief.
- Not covered by insurance.
- Bone Marrow Aspirate Injection
 - Progenitor cells are harvested from a small volume of bone marrow and concentrated. The cells are then injected into the knee to decrease inflammation, potentially slow cartilage degeneration, and decrease pain.
 - Insurance may not cover stem cells.
 - Anticipate >6 months of relief.
 - Not covered by insurance.