

Osteoarthritis

What You Need to Know About the Most Common Form of Arthritis

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What is osteoarthritis?

Osteoarthritis is caused by the progressive loss of articular cartilage. Cartilage helps pad and protect our bones and creates a smooth frictionless environment. Loss of cartilage results in grinding of the bones which leads to pain and inflammation.

Osteoarthritis is a progressive disease. The more osteoarthritis you have, the more you're at risk for getting.

How does osteoarthritis occur?

Risk factors for osteoarthritis include age, genetics, trauma, injury, repetitive high impact activities, and metabolic factors such as blood pressure, blood sugar, weight, triglycerides, and cholesterol.

Low grade inflammation causes breakdown of the articular cartilage resulting in joint dysfunction. Damage to articular cartilage causes the release of toxic enzymes and inflammatory proteins. This creates a harmful environment which causes further damage to the cartilage. This cycle repeats itself until all the cartilage is lost and bone comes into contact with bone.

The ultimate result is stiffness, decreased range of motion, swelling, and pain.

How is osteoarthritis treated?

Treatment of osteoarthritis should focus on prevention.

1. Exercise therapy is critical to decreasing pain and improving function. Aerobic exercise such as walking or stationary bike helps increase the production of lubrication in the joint. This helps the joint move smoothly.
 - a. **Aerobic exercise should be done at least 30 minutes every day.**
2. Resistance training and rehabilitation exercises strengthen the muscles around the leg to help take pressure off the joint.
 - a. **Strength training should be done at least 3 times a week.**
3. Load management and weight loss help to reduce overloading the joints.
4. Injections with platelet rich plasma may slow the progression of osteoarthritis.

Patient Education - Knee Osteoarthritis

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<p>Everything on Knee Arthritis Treatment Without Surgery: https://youtu.be/z3veeAgR8AQ</p> 	<p>Knee Arthritis Exercises: https://youtu.be/aMMHfJwAmM</p> 	<p>The Top 7 Signs and Symptoms of Knee Arthritis: https://youtu.be/qyPGw1KmGel</p> 
<p>Anti-Inflammatory Diet & Weight Loss for Arthritis https://youtu.be/MY1_6EnkChg</p> 	<p>5 Easy Home Treatments for Knee Arthritis Pain Relief: https://youtu.be/f49OKQum87w</p> 	<p>This is What CAUSES and WORSENS Arthritis: https://youtu.be/jWnNS515Zv8</p> 
<p>Exercise Reduces Pain for Knee Arthritis: https://youtu.be/1rFO54npL5A</p> 	<p>PRP Injection for Knee Arthritis: https://youtu.be/H0OQwpctKKE</p> 	<p>PRP Slows Down Knee Arthritis Progression: https://youtu.be/_7HU_-YDfQY</p> 
<p>How Many PRP Injections Do You Need? https://youtu.be/6ZcvgWxMIXQ</p> 	<p>Are PRP Booster Injections Necessary? https://youtu.be/4pHwrWVDQTc</p> 	<p>PRP Injections vs Stem Cell Injections for Knee Arthritis: https://youtu.be/JjkQvbM6rsw</p> 
<p>X-ray Stages of Knee Arthritis: https://youtu.be/WiZoV8PJ_tQ</p> 	<p>Meniscus Tear Treatment Without Surgery https://youtu.be/hmSsJpgq03k</p> 	<p>Is it Safe to Walk with Knee Arthritis? https://youtu.be/m1hqe5DBEqM</p> 

Patient Education - Supplements for Osteoarthritis Pain

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The best available clinical trial evidence suggests the following:

High effect size in reducing symptoms:

- Turmeric & Curcumin 1000mg daily
- Boswellia Serrata extract 100mg daily, increase to 250mg daily as needed

Low to moderate effect size in reducing symptoms:

- Glucosamine 1500mg & Chondroitin 800-1200mg daily (G&C must be taken together)

Low effect size in reducing symptoms:







- Vitamin D 2000 IU daily

Likely no benefit in reducing symptoms:

- Omega-3 & fish oil

Insufficient evidence:

- Type 2 Collagen

<p>Glucosamine & Chondroitin For Joint Pain & Arthritis: https://youtu.be/ERfMAqLLd_4</p> 	<p>Turmeric & Curcumin For Joint Pain & Arthritis: https://youtu.be/B4Wf5-K5PmM</p> 	<p>Omega-3 & Fish Oil For Joint Pain & Arthritis: https://youtu.be/CIVQYr5c21w</p> 
<p>Type 2 Collagen For Joint Pain & Arthritis: https://youtu.be/l1h5v663x4E</p> 	<p>Boswellia Serrata For Joint Pain & Arthritis: https://youtu.be/klEePlw76ls</p> 	<p>Vitamin D For Joint Pain & Arthritis: https://youtu.be/BMYi0X3Dn1c</p> 

Knee Osteoarthritis Treatments

Knee Osteoarthritis Treatment	Short term pain benefits	Mid to Long term pain benefits	Risk for Worsening Arthritis	Risk of MAJOR side effects	Cost of Treatment	Dr Peng's Recommendation
Exercise Therapy	Mild	High	Decreases	None	None	Highest
Weight Management	Mild	High	Decreases	None	None	Highest
Anti-Inflammatory Diet	Mild	Mild	May decrease	None	Minimal	Highest
Platelet Rich Plasma	Moderate	Moderate	Decreases	None	\$\$	Moderate - High
Trigger Point Injection	Mild - Moderate	Mild - Moderate	None	None	\$	Moderate
Hyaluronic Acid	Mild - Moderate	Mild	May decrease	Very low	\$\$	Low - Moderate
Dextrose Prolotherapy	Mild - Moderate	None	None	None	\$\$	Low
Genicular Treatment	Mild - Moderate	None	None	None	\$\$	Low
Supplements	Mild	None	None	None	Minimal	Low, turmeric favored
Knee Braces	Mild	None	None	None	Minimal to \$	Low, knee sleeve favored
Topical NSAIDs	Mild	None	None	None	Minimal	Use as needed
Tylenol	Mild	None	None	Very low	Minimal	Use as needed
Oral NSAIDs	Mild	None	None	Low - Moderate	Minimal	Use sparingly
Bone Marrow Stem Cells	Moderate	Moderate	Decreases	Low	\$\$\$\$	Consider prior to surgery
Adipose Tissue Stem Cells	Moderate	Moderate	Decreases	Low	\$\$\$\$	Bone marrow favored
Cortisone Injection	Mild - Moderate	None	Increases	Low	\$	Not more than 1 or 2
Opiates	Mild	None	None	High	Minimal	Not recommended
Knee arthroscopy	Mild	Mild	Increases	Moderate	\$\$\$	Not recommended
Knee replacement	Poor	High	N/A	Moderate	\$\$\$\$	Personal decision