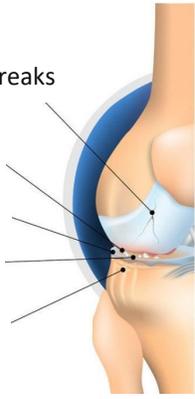


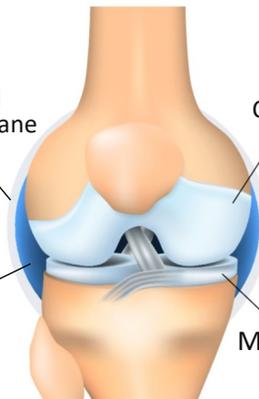
Arthritis & Joint Care



Cartilage Breaks
Cartilage Remnants
Meniscus Erosion
Narrowed Joint Space
Bone Spurs

Osteoarthritic (OA) Synovial Joint

Specific to individual joints, OA is the most common arthritis. OA wears away cartilage that caps the bones within the joint. Surgical repair depends upon joint degradation.

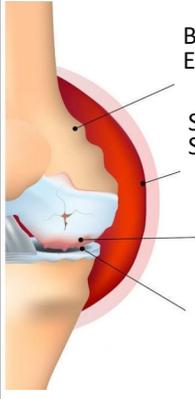


Synovial Membrane
Synovial Fluid
Cartilage
Meniscus

Healthy Synovial Joint

A joint is where bones join in the body. The most common joint is the synovial joint:

- A synovial membrane houses joining bones.
- Cartilage lines the end of bones to prevent rubbing against one another.
- Lubricating synovial fluid helps with movement and provides protection.



Bone Erosion
Swollen, Inflamed Synovial Membrane
Cartilage Wears
Bony Ankylosis

Rheumatic (RA) Synovial Joint

RA is an auto-immune disease. The immune system mistakenly attacks the synovial membrane causing pain, swelling, and joint degradation. Early diagnosis and aggressive treatment can help to prevent joint deformity.

Test Your Knowledge - True or False

1. Osteoarthritis (OA) and Rheumatoid Arthritis (RA) are the only two form of arthritis.

False - There are over 100 types of arthritis. The most commonly recognized include Gout; Fibromyalgia; Degenerative OA; Inflammatory arthritis' as RA, Ankylosing Spondylitis, Psoriatic and Reactive.

2. "My achy knee is telling me the weather is changing!"

True - 67% people with OA feel more joint pain when temperature and barometric pressure decreases. Tufts University shows for every 10° temperature drop, weather sensitive people feel more pain. Researchers suspect pain is caused by muscles, tendons, bones, and scar tissue expanding and contracting. Synovial fluids around the joints may thicken causing more stiff, painful movement. *BMC Musculoskeletal Disorders, 2014 Tufts University 2007*

3. "I'll have arthritis because my family member did."

False - Genetics can play a role in certain types of arthritis, but not all. OA has only a 40-65% chance of being passed down. While research is ongoing, proper physical activity and nutrition is the best way to prevent and/or delay arthritis and it's symptoms. <https://health.clevelandclinic.org/is-arthritis-hereditary/>

Inflammatory Arthritis and Other Conditions

It's not uncommon to have inflammation present in more than one area of the body. Having inflamed lymph nodes in the armpit for example, does not guarantee the body is fighting something foreign located in the armpit. Likewise, inflammatory arthritis often coincides with inflammation in the following areas:

Inflamed blood vessels will narrow. Narrow blood vessels make it more difficult for oxygen rich blood to reach the heart, leading to chest pain (angina). Heart disease is 2x as likely to develop with arthritis.

Chronic inflammation of the bronchioles in the lungs are related to lung diseases such as, Chronic Obstructive Pulmonary Disease (COPD), Emphysema, and Chronic Bronchitis.

Neuropathy (nerve damage) related to Diabetes is 1.5x more likely for those with arthritis.



Test Your Knowledge - True or False



4. "Being active will make my arthritis worse."

False - Exercise is crucial for arthritis care. Strengthening the muscles around the joints will lessen the load and provide support to the joints. Exercise reduces fatigue and improves both mobility and range of motion. Not only that, losing 1lb of body weight relieves the knee joint of 4lbs of pressure.

5. Non-steroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen (Advil) and naproxen (Aleve) are safe for long term pain management for arthritis.

False - Observational studies show participants who use NSAIDs for OA had a 42% greater risk of heart failure and 17% greater risk of coronary artery disease. While the study doesn't prove cause and effect, it's already known that routine NSAID use can cause stomach bleeding and an increased risk of kidney problems and high blood pressure. Recommendations indicate taking the lowest dose possible for the shortest possible time.

Arthritis and Rheumatology, 8/6/19

6. There are home remedies for pain relief rather than depending upon NSAID's.

True - Our ancestors knew how to care for themselves with healing properties from nature. Tart cherry, gelatin, glucosamine, chondroitin, and rooster comb are examples of things that are still used today for inflammation and pain relief. Prior to beginning a more natural remedy, consult with your health care provider to ensure it will not negatively interact with medications you may already be taking.

Symptoms of Arthritis

With over 100 types of arthritis, symptoms vary widely.

- Common joint symptoms typically include pain, stiffness, warmth, swelling, and decreased range of motion.
- Intensity of pain can feel mild to debilitating.
- Duration can be intermittent, chronic, or last through the duration of movement

Types of Arthritis Pain

If your symptoms are isolated to one joint, a diagnosis and action plan may feel swift and manageable.

If symptoms present themselves in multiple areas of the body (skin, heart, eye, kidneys or lungs), a diagnosis can take longer. It's not uncommon for chronic pain to cause stress, fatigue, sleep disruptions, depression and changes in diet and relationships.

When seeking a diagnosis be prepared with a list of concerns to get the best care. Recall if there was an injury or if there is a repetitive pattern of activity. When did the pain start and what pain sensation you are experiencing? Useful descriptions as below may help your doctor to determine if it's an injury, arthritis, an auto-immune disorder, etc..

- **Nociceptive** - Pain on the surface of organs, muscles and joints, i.e, stubbing a toe.
- **Mechanical** - Nociceptive pain + pressure at the joint, i.e, osteoarthritis, tendonitis, low back disorders.
- **Inflammatory** - Pain caused by inflammation and nerve activation. It can cause damage to bone, muscle, and cartilage, i.e, rheumatoid arthritis, psoriatic arthritis, lupus, gout and ankylosing spondylitis.
- **Neuropathic** - Persistent pressure or excessive pain on the nerves. Feels similar to burning, tingling or shooting. It can start at the lower back and run down the leg, .i.e, sciatic nerve pain.
- **Centralized** - Pain amplified as the central nervous system working improperly, i.e, fibromyalgia, TMJ, IBS.
- **Psychogenic**- Pain that worsens or lasts longer when influenced by emotions; i.e, muscle pain, headache and low back pain.

<https://www.arthritis.org/toolkits/arthritis-pain/>

Self-Care Of Non-Emergent Joint Pain

If you have undiagnosed, non-emergent, manageable joint pain, begin with conservative pain management. Pain in the affected area could be related to a strain that may heal with proper rest. Follow these self-care tips to help heal the affected area:

- Rest
- Ice
- Compress if swelling exists (i.e, wrap a knee with a compression wrap)
- Elevate the swollen knee above heart level
- Short term use of NSAIDs as directed on the label
- Avoid movement and/or activity that causes pain
- Try not to sleep on the area

If the pain has not improved in 7-10 days contact your health care provider.

 Prevention and Pain Management of Arthritis Self-care is paramount for arthritis prevention and management. Use these techniques and those prescribed by your doctor to help manage your arthritis.		Personal Practices	Professional Practices
Diet	A high calorie, nutrient poor diet can lead to feeling unwell, weight gain and often exacerbates arthritis pain by causing inflammation. Aim to follow the Mediterranean diet guidelines which contain nutrient dense foods high in vitamins, minerals: <ul style="list-style-type: none"> • Healthy Fats—Extra Virgin Olive Oil / Nuts • Replace Red Meat with Healthy Proteins—Poultry / Beans / Eggs / Fish (tuna, salmon, trout, mackerel or herring up to 2x a week) • Fresh fruits and vegetables—7-10 servings per day • Whole Grains—bread, cereal and pasta / Bulgur / Farro • Moderate dairy—Low-fat Greek or plain yogurt / Cheese in small quantities • Herbs and spices—less salt. 	X	
Weight Maintenance	Maintain a healthy weight to avoid excess body fat. Did you know? : <ul style="list-style-type: none"> • Fat cells release chemicals into the body that promote inflammation, furthering the link between obesity and arthritis. 	X	
Natural Therapies	Supplements	X	
	Mind-body therapies	X	
	Hot and Cold Therapy <ul style="list-style-type: none"> • Using an electric blanket 10 minutes before rising, eases achy morning joints. Did you know? :	X	X
	Massage	X	X
	Acupressure	X	X
	Acupuncture		X
Movement	Physical Exercise <ul style="list-style-type: none"> • 30 minutes of moderate exercise 5 days per week or 75 minutes of vigorous per week. Strength train 2x per week with 8-10 exercises for 8-12 repetitions each. • Follow the 2 Hour Rule: If you are still in joint pain 2 hours after the exercise, modify the exercise next time you perform it. 	X	
	Physical Therapy		X
	Osteopathic Manipulation using pressure to work with muscles, connective tissues, and joints to relieve pain and restore motion		X
	Chiropractic Spine Alignment		X
Devices	Brace & Splints	X	X
	Assisted devices (cane or walker)	X	X
	Electric Stimulation for pain relief		X
Medications for RA	Disease-modifying antirheumatic drugs (DMARDs) to stop the inflammatory process		X
Medications for Pain	Short term use of Over The Counter and/or Prescribed Medications	X	X
Surgery	Arthroscopy (exploratory surgery; minimal repairs may be done depending upon findings, i.e, clean-up cartilage)		X
	Synovectomy (remove synovial lining)		X
	Osteotomy (bone shortened to redistribute weight on a misaligned joint)		X
	Fusion (join two or more bones to make 1 continuous joint)		X
	Partial Joint Replacement (replace only part of the damaged joint with a partial prosthesis)		X
	Total Joint Replacement (replace damaged joint with a complete prosthesis)		X