



Osteoarthritis: also known as Degenerative Joint Disease (DJD)

by Gary E. Foresman, MD

Epidemiology

- The most common form of arthritis
- The second most common cause of long-term disability
- Leads to total joint replacement in a half million Americans each year
- Age: more than 80% of eighty-year olds have X-ray evidence of OA, the majority of OA changes are asymptomatic.
- Gender: an equal rate of OA occurs in both genders up until the age of 55, but after 55 OA becomes much more common in women.
- Trauma/Overuse: occupations that subject particular joints to trauma or overuse predispose those joints to OA.
- Genetics: The genetic component of OA is most strongly correlated with arthritis of the proximal interphalangeal joints (PIPs) - Bouchard's nodes and distal interphalangeal joints (DIPs) - Heberden's nodes.
- Associated with chronic pain, joint destruction, disability, depression, and social isolation.

Definition and Pathogenesis

- A disease of the synovium, bone and cartilage where local joint inflammation leads to progressive destruction of the cartilage and secondary bony sclerosis.
- The lack of a biomarker for disease activity has dramatically hindered research and the therapeutics of OA (the urinary CTx-II is the most promising potential biomarker).
- Classically OA has been considered "non-inflammatory" as synovial fluid has a low white-cell count.
- However, many inflammatory markers are now being identified (IL-1Beta, MMPs, NO, TNF-alpha).
- X-rays do not correlate with symptoms.
- MRIs show the most promise in following joint destruction however cost is limiting.

Symptoms and Signs

- Pain gradual in onset, made worst with activity and relieved by rest. Many people can feel barometric pressure changes and this may be related to pressure changes within the joint capsule.

- Stiffness although many people with OA experience stiffness, if morning stiffness lasts greater than 30 minutes one should suspect other forms of arthritis.
- Swelling usually mild, if red-swollen joints are present also suspect other forms of arthritis.
- Crepitus popping and cracking of the joint which is non-specific.
- Laboratory and X-rays are usually not necessary unless your physician suspects other forms of arthritis.

Treatment

- General Please see Middle Path Medicine's articles titled "Foundations of Health" and "Basic Nutritional Protocol" for advice on diet, activity, and stress reduction most important for the treatment of OA.
- Dietary Elimination (anecdotally) can help elucidate any food intolerances that may be exacerbating an individual's OA. The usual suspects include sugars, artificial sweeteners, glutens (BROW- barley, rye, oats and wheat), night shades (tomatoes, potatoes, peppers and eggplants), and dairy.
- "Alternative Therapies" such as chiropractic, acupuncture, and massage should be experienced by any individual with significant symptomatic OA. Continue the use of any of these therapies if they are effective and discontinue them if they are not.

Western Medical Therapies

- NSAIDs (non-steroidal anti-inflammatory drugs) have proven benefits for symptom relief, but long-term toxicity severely limits their use. Through drug-related side effects including ulcers, the leaky-gut syndrome, and many others, these medicines dramatically worsen the course of OA and adversely affect survival.
- Acetaminophen recent trials suggest that this medicine is no better than placebo for pain relief in OA.
- Joint replacement in severe OA this is where you and your orthopedist need to come to the best decision based upon your quality of life. I only recommend visiting an orthopedist (for OA) once all of the above treatments have failed and you are convinced that joint replacement is your only option.

Nutrition Supplement and Herbal Approaches:

Structure Modifying Agents

- Glucosamine Sulfate Studies on Glucosamine Sulfate at 1500 mg per day (I use as high as 2250 mg in people over 200 lbs) have lasted up to 3 years. Although not all studies are positive, the overall effect as determined by pooled analysis shows a decrease in pain of 28%-41%, and improvement in functionality of 21%-46% and a reduction in the risk of OA progression by up to 54%. A recent trial showed no benefit in hip arthritis and most studies have focused on knee arthritis. Glucosamine is an amino sugar which stimulates cartilage synthesis. It also has a mild anti-inflammatory effect. Optimal pain relief does not occur until 8 weeks into therapy. Although derived from shellfish exoskeletons there are no

documented reports of allergic reaction to glucosamine in shellfish allergic patients.

- Chondroitin Sulfate A very large molecule which is poorly absorbed and in most studies adds little benefit to glucosamine. My experience and scientific studies indicate that maybe 3-4 people out of 100 may benefit from adding 1200mg per day of chondroitin to glucosamine.
- Methylsulfonylmethane (MSM) Although entirely anecdotal I have found MSM to be an excellent add-on to glucosamine. Entirely non-toxic and due to a potential decrease in degenerative changes (in animal models) MSM at 3,000-9,000 mg daily can reduce pain and stiffness in many people with OA.
- S-Adenosyl Methionine (SAME) Multiple clinical trials show that SAME 400-800 mg per day is at least comparable to NSAIDs in terms of pain relief. It also stimulates cartilage synthesis and acts as an anti-inflammatory as well. Due to its anti-depressant and liver-protective effects SAME should be strongly considered as a first line agent in the treatment of OA. Cost and the quality of certain supplements limit its utility.
- Hyaluronic Acid has received a lot of attention as an anti-aging agent. However questions about its bioavailability and lack of quality studies make this agent an add-on to other therapies if adequate pain relief has not been obtained.

Anti-Inflammatory Fatty Acids

- Eicosapentaenoic Acid (EPA)/ Docosahexaenoic Acid (DHA)
- Gamma Linolenic Acid (GLA) and Evening Primrose Oil (EPO)

Systemic Enzymes

- Rejuvenzyme- with serrapeptase, rutin, trypsin, and bromelain.

Antiinflammatory Herbs

- Resveratrol with Red Wine Extract
- Cat's Claw – Raintree Nutrition
- Boswellia (Indian Frankincense)
- Ginger
- Curcumin (Tumeric)
- Hops
- Devil's Claw

Multi-Supplement and Herbal Combinations

- Ultra Joint Response
- InflamaRest
- Kaprex
- AR-ENCAP
- Bioinflammatory Plus

Topical Therapies

- Herbal

- Capsaicin (Zostrix)
- Boswellin Cream
- Sombra- menthol 3%/camphor 3%
- Gluconex
- Homeopathic
 - Arnica
- Essential Oils
 - Z's Remedies- "Ache Away"-with marjoram, sage, and rosemary.
- Antiinflammatory Medicines
 - Ibunex

Your Journey to Health and Healing,
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References:
Upon Request

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