

Mild early-morning stiffness, stiffness following periods of rest, pain that worsens on joint use, and loss of joint function
Local tenderness, soft tissue swelling, joint crepitus, bony swelling, restricted mobility, Heberden's nodes, and other signs of degenerative loss of articular cartilage
X ray findings (narrowed joint spaces, cartilage erosion, bone spurs, etc.)

QUICK REVIEW

- Osteoarthritis can be halted and even reversed.
- Aspirin and similar drugs may actually contribute to osteoarthritis by inhibiting cartilage repair.
- Nightshade family vegetables, such as tomatoes, potatoes, and eggplants, may trigger osteoarthritis in some cases.
- Antioxidants protect against osteoarthritis.

Glucosamine sulfate is the most thoroughly researched and most effective natural approach to osteoarthritis. Head-to-head studies using arthritis drugs have shown that glucosamine sulfate produces better results without side effects.

Chondroitin sulfate and cartilage preparations are poorly absorbed.

Physical therapy and exercise can help relieve osteoarthritis.

Topically applied menthol or capsaicin preparations can help reduce the pain of osteoarthritis.

TREATMENT SUMMARY

Although glucosamine sulfate has proven remarkably effective on its own, the comprehensive treatment recommended here is based on reducing joint stress and trauma, promoting cartilage repair mechanisms, and eliminating foods and other factors that may inhibit normal cartilage repair.

Non-steroidal anti-inflammatory drugs such as aspirin, should be avoided as much as possible. If NSAIDs must be used, eglycyrrhizinated licorice (DGL) should be used to help protect the gastrointestinal tract from their damaging effects, and their use should be discontinued as soon as possible. (For information on DGL, see ULCERS).

Diet

All simple, processed, and concentrated carbohydrates must be avoided. Complex carbohydrate, high-fiber foods should be emphasized, and fats should be kept to a minimum. Plants of the nightshade family should be eliminated (tomatoes, potatoes, eggplant, peppers, and tobacco).

Flavonoid-rich berries or extracts should be liberally consumed.

Nutritional Supplements

CMO (Cetyl Myristoleate) is an "arthritis immuizer" composed of a fatty acid ester that actually restores normal joint function. It is found in mice, beavers and sperm whale oil. Currently it's manufactured but still retains it's amazing ability to heal arthritic joints within a few months. It seems to alter the immune systems response to inflamed joints to promote healing instead of further damage. It's taken as 60 mg 3 capsules three times daily.

Glucosamine sulfate: 1,500 mg per day Niacinamide (optional): 500 mg six times per day (under strict supervision; liver enzyme must be regularly checked)

Vitamin E: 400-800 IU per day

Vitamin A: 5,000 IU per day Vitamin

B6: 50 mg per day Pantothenic acid: 12.5 mg per day Zinc: 30-45 mg per day

B complex 100 mg three times daily

Vitamin C to saturation, 2,000-10,000 mg daily in divided doses (just under dose that causes diarrhea)

Niacinamide (or Niacin if high lipids are also a concern) 500 mg every 8 hours

Copper: 1-2 mg per day Boron: 6 mg per day

Glucosamine SO₄ 500 mg three times daily for 6 months

Omega3 fatty acids 1.5 gm twice daily to start, the pain/inflammation can be thought of as an EPA (one of the fatty acid family) deficiency, it's hard to get "too much" EPA fatty acid intake other than the "fish burp" that may accompany it. Flavored liquid forms or freezing the gelscaps helps reduce the side effect.

Raw food/cultured dairy products such as cheese/yogurt

MSM up to 5 capsules 4 times daily

Botanical Medicines

• Alfalfa (*Medicago sativa*) (optional): equivalent to 5-10 g per day

Yucca leaves (optional): 2-4 grams three times per day

Devil's claw (*Harpagophytum procumbens*) (optional):

Dried powdered root: 1-2 grams three times per day

Tincture (1:5): 4-5 ml three times per day

Dry solid extract (3:1): 400 mg three times per day

Topical Treatments

Menthol-based creams or creams containing 0.025 percent or 0.075 percent capsaicin can be applied to affected areas up to four times per day.

Physical Therapy and Exercise

Physical activity that overly strains the joint must be avoided.

Chiropractic and other techniques that aid in the normalization of posture, as well as orthopedic correction of structural abnormalities, should be utilized to limit joint strain. Daily non-traumatic exercise (walking, isometrics, or swimming) is important but should be carefully monitored. Short-wave diathermy, hydrotherapy, and other physical therapy modalities that improve joint perfusion are recommended.