The following two inserts are from the book, “Prescription for Nutritional Healing”, by James F. Balch, MD and Phyllis A. Balch, CNC.

The 2nd section of these is for Osteoporosis, which may not always apply in arthritis.

Arthritis

Arthritis is characterized by an inflammation and/or pain in a joint or joints. Joints of the body are found at the knees, wrists, elbows, fingers, toes, hips, and shoulders. The neck and back also have joints between the bones of the spine. Symptoms of chronic arthritis are pain, swelling, stiffness, and deformity of one or more joints. It may appear suddenly or come on gradually. Some people feel a sharp burning or grinding pain. Others compare the pain to a toothache. Moving the joint usually hurts, although sometimes there is only stiffness.

There are many different forms arthritis can take. However, here we will be discussing the most common forms: osteoarthritis and rheumatoid arthritis. A degenerative joint disease, osteoarthritis is related to the wear and tear of aging and involves deterioration of the cartilage at the ends of the bones. The once smooth surface of cartilage becomes rough, resulting in friction. The tendons, ligaments, and muscles holding the joint together become weaker, and the joint itself becomes deformed, painful, and stiff. There is usually some pain, but little or no swelling. Any disablement is usually minor. Osteoarthritis rarely develops before the age of forty. It afflicts 15.8 million Americans. It typically runs in families, but afflicts almost three times as many women as men.

Rheumatoid and juvenile rheumatoid arthritis are types of inflammatory arthritis that attack the synovial membranes surrounding the lubricating fluid in the joints. The cartilage and tissues in and around the joints and often the bone surfaces are destroyed. The body replaces this damaged tissue with scar tissue, causing the spaces between the joints to become narrow, to develop folds, and to fuse together. The entire body is affected instead of just one joint as in osteoarthritis. Rheumatoid arthritis creates stiffness, swelling, fatigue, anemia, weight loss, fever, and often crippling pain. It often occurs in people under forty years of age, including young children. Currently, 2.1 million Americans are afflicted with rheumatoid arthritis; twice as many women as men suffer from rheumatoid arthritis. Juvenile rheumatoid arthritis affects 71,000 young Americans (aged eighteen and under); six times as many girls are afflicted with juvenile rheumatoid arthritis as boys.

The onset of rheumatoid arthritis is often associated with physical or emotional stress; however, poor nutrition or bacterial infection may also be the cause.

Other forms of arthritis include gout, ankylosing spondylitis (AS), and systemic lupus erythematosus (SLE). Gout occurs more often in overweight people and those who indulge regularly in rich foods and alcohol. It typically attacks the smaller joints of the feet and hands, generally affecting the big toe. Deposits of crystallized uric acid salt in the joint cause swelling, redness, and a sensation of heat and extreme pain. Currently 1 million Americans are affected, with four times as many men suffering from gout as women.

Ankylosing spondylitis (AS) affects certain joints of the spine, which become inflamed, stiffen, become rigid, and then fuse together. If confined to the lower back, AS will cause virtually no limitation of movement. In some cases, however, the entire spine may become rigid and bent. If the joints between the ribs and spine are affected, it will cause severe breathing problems due to limited expansion of the chest wall. Postural deformities are common. Currently 318,000 Americans are afflicted; two and a half times as many men as women have AS.

Systemic lupus erythematosus (SLE) is a malfunction of the body’s immune system. For reasons unknown, the body produces antibodies that act against itself. Although it mimics rheumatoid arthritis and results in painful and inflamed joints, SLE is not a crippling disease. Currently 131,000 Americans are afflicted; eight times as many women as men have this disorder.

NUTRIENTS

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<thead>
<tr>
<th>SUPPLEMENT</th>
<th>SUGGESTED DOSAGE</th>
<th>COMMENTS</th>
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<tbody>
<tr>
<td>Primrose or salmon</td>
<td>2 capsules twice</td>
<td>Controls arthritis pain</td>
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<tr>
<td>oil</td>
<td>daily</td>
<td>and inflammation</td>
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<tr>
<td>Supplement</td>
<td>Dosage</td>
<td>Uses</td>
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<tr>
<td>Superoxide dismutase (SOD)</td>
<td>As directed on label.</td>
<td>A free radical destroyer. Injections have given excellent results. The sublingual form is also good, or try Cell Guard from Botec Foods.</td>
</tr>
<tr>
<td>Calcium plus magnesium</td>
<td>2,000 mg daily.</td>
<td>Chelate form is the most effective. Needed to prevent bone loss.</td>
</tr>
<tr>
<td>Coenzyme Q₁₀</td>
<td>1,000 mg daily.</td>
<td>Increases tissue oxygenation, which is needed to aid in repairing connective tissues.</td>
</tr>
<tr>
<td>Garlic tablets (Kyolic)</td>
<td>60 mg daily.</td>
<td>Inhibits the formation of free radicals, which can damage the joints.</td>
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<tr>
<td>Kelp</td>
<td>2 capsules 3 times daily with meals.</td>
<td>Use this odorless garlic or 1 tsp. of oil.</td>
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<tr>
<td>Multi-enzymes</td>
<td>8 tablets daily.</td>
<td>A rich source of minerals.</td>
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<tr>
<td>Niacin (B₃, niacinamide) plus vitamin B₆ (pyridoxine)</td>
<td>100 mg 3 times daily.</td>
<td>Increases blood flow by diluting small arteries.</td>
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<tr>
<td>Vitamin B complex with extra niacin (B₃) plus B₆ (pyridoxine) and PABA and pantothenic acid (B₃)</td>
<td>100 mg 3 times daily.</td>
<td>Use hypoallergenic variety. PABA is good for swelling.</td>
</tr>
<tr>
<td>Vitamin C plus bioflavonoids</td>
<td>3,000–10,000 mg daily in divided doses.</td>
<td>500 mg daily.</td>
</tr>
<tr>
<td>Germanium</td>
<td>200 mg daily.</td>
<td>A powerful antioxidant that also relieves pain.</td>
</tr>
<tr>
<td>Multi-enzymes</td>
<td>Take with meals.</td>
<td>Bromelain enzymes help to stimulate production of prostaglandin. Also helps digestion of protein. Proteolytic enzymes protect the joints from free radical damage.</td>
</tr>
<tr>
<td>Proteolytic enzymes</td>
<td>Take between meals.</td>
<td>A powerful free radical destroyer.</td>
</tr>
</tbody>
</table>

**HERBS**

- If you have arthritis, the use of the following herbs can be beneficial: alfalfa leaves, black cohosh, brigham tea, cayenne, celery seed, chaparral leaves, comfrey, devil's claw tea, feverfew, parsley tea, valerian root, and yucca extract. Feverfew is good for pain and soreness. Yucca extract has been used successfully at the Desert Arthritis Clinic.

**RECOMMENDATIONS**

- Check for possible allergies.
- Avoid milk; vitamin D causes sore joints. Also avoid red meat, sugar products, citrus fruits, green peppers, eggplant, tomatoes, potatoes, paprika, cayenne pepper, tobacco, and salt.
- Exercise is essential for reducing pain and retarding joint deterioration. Hot tubs and baths provide relief. Raw lemon rubs and hot castor oil packs are also extremely beneficial.
- A free form amino acid complex should be part of the program to help repair tissue. Some form of fiber, such as oat bran or rice bran, should be eaten daily, and the diet should be low in fats. Foods that should be consumed include eggs; onions; garlic or asparagus whose sulfur content helps to remove metals; the amino acid histidine, which is also good for removing metals; green leafy vegetables, which are needed for vitamin K; fresh vegetables; nonacidic fresh fruits; whole grains; oatmeal; brown rice; and fish.
- It is important to drink steam-distilled water only.
- The nightshade vegetables (green peppers, eggplant, tomatoes, white potatoes) contain a toxin called solanine that some people, particularly those suffering from arthritis, are highly sensitive to it. Solanine interferes with enzymes in the muscles, and may cause pain and discomfort.
Do not take iron. It is suspected to be involved in pain, swelling, and joint destruction. Do not take a multivitamin containing iron. Consume iron naturally in blackstrap molasses, broccoli, Brussels sprouts, cauliflower, fish, lima beans, and peas.

CONSIDERATIONS

The drugs piroxicam and indomethacin relieve pain more efficiently than aspirin. In some forms of arthritis, stronger types of drugs are used: hydroxychloroquine and gold compound.

The bacteria responsible for chlamydia nonspecific urethritis has been linked as a cause of one form of arthritis in young women. In nearly half of the women with unexplained arthritis who were tested, chlamydia was found in the joints. Seventy-five percent had raised antibody levels in the blood.

Rheumatologist Thomas Brown, M.D., implicates the mycoplasma organism as the causative agent in rheumatoid arthritis. His apparent remarkable results using the antibiotic tetracycline, however, are questionable and need further investigation.

ARTHRITIS COMMENTS

A joint afflicted with rheumatoid arthritis sounds more like crinkling cellophane, while an osteoarthritic joint makes popping, clicking, and banging noises.

Over 250,000 people have used supplements in arthritis treatment; they correct 80 to 90 percent of all arthritis cases according to Robert Bingham, M.D., in the journal of the Academy of Rheumatoid Diseases.

Latest research has linked rheumatoid arthritis to diet. Victims had lower blood levels of folic acid, protein, and zinc. Researchers concluded that drugs brought about new biochemical changes, creating a need for certain nutrients.

Researchers report that the ulcer drug, Carafate, can give the same relief as aspirin and other anti-inflammatory drugs without damaging the stomach lining. The drug Suprol (also known as suprofen) can harm the kidneys. There have been 100 reported cases of kidney damage from this drug. If side effects occur, stop the use of the drug and notify your doctor.

Osteoporosis

A lack of calcium is the major cause of osteoporosis, the gradual loss of bone mass resulting in increased fractures, loss of height, pain in the hip and back, and spinal curvature. Osteoporosis primarily affects women, as bone mass is approximately 30 percent greater in men than in women. The risk of developing osteoporosis increases with age, as the peak bone mass is achieved at about thirty-five years of age. It affects 25 percent of postmenopausal women. Estrogen deficiency is the leading cause of osteoporosis in the menopausal female. Today osteoporosis affects as many as 15–20 million people in the United States.

Other causes of osteoporosis are an inability to absorb sufficient amounts of calcium through the intestine, a calcium-phosphorus imbalance, a lack of exercise, prolonged jaundice, a gastrectomy, and a lactose intolerance.

A diet that is adequate in protein, calcium, magnesium, phosphorus, vitamin C, and vitamin D is the best prevention and treatment for osteoporosis.

<table>
<thead>
<tr>
<th>SUPPLEMENT</th>
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<tbody>
<tr>
<td>Calcium</td>
<td>1,500–2,000 mg daily.</td>
<td>Injections may be necessary. Calcium is the largest and most difficult molecule to utilize.</td>
</tr>
<tr>
<td>Magnesium complex</td>
<td>1,000 mg daily.</td>
<td>Important in calcium uptake.</td>
</tr>
<tr>
<td>Silica tablets (silicon)</td>
<td>Use as directed on label.</td>
<td>Contains high amounts of calcium in a form that is easily absorbed. Necessary for calcium utilization and bone strength.</td>
</tr>
<tr>
<td>Boron</td>
<td>3 mg daily; do not take higher amounts.</td>
<td>Improves calcium absorption.</td>
</tr>
<tr>
<td>L-Lysine and L-arginine (amino acids)</td>
<td>As directed on label.</td>
<td>Aids calcium absorption and connective tissue strength.</td>
</tr>
<tr>
<td>Multidigestive enzymes with betaine hydrochloride and proteolytic enzymes</td>
<td>Take with meals.</td>
<td>Needed for proper absorption of calcium and all nutrients.</td>
</tr>
<tr>
<td></td>
<td>Take between meals.</td>
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</tr>
</tbody>
</table>
Phosphorus complex
Sulfur tablets
Vitamin A, D, and E emulsion
Zinc

Bone complex from Biotics Research
Cod liver oil
Kelp
Manganese
Multivitamin and mineral supplement with high mineral content
Vitamin B₁₂
Vitamin C

- As directed on label.
- As directed on label.
- 50,000 IU vitamin A for 1 month, then decrease to 25,000 IU; continue with 400 IU vitamin D and 400 IU vitamin E.
- 50 mg

- As directed on label.
- 3 tsp. twice daily.
- 10 tablets daily.
- As directed on label.
- As directed on label.
- 1,000 mcg daily.
- 3,000 mg and up daily.

Important in bone formation.
Important for calcium uptake. Necessary for calcium uptake. Increases bone and connective tissue strength. Sulfur food sources are eggs, onions, garlic, and asparagus.
Important in retarding the aging process. Vitamin D has a special role in calcium uptake.
Important for calcium uptake and immune function.
Raw bovine tissue is found in these products: Cytoladin, F-Cytoladin, and M-Cytoladin PT:BT.
A natural source of vitamins A and D. Note: Avoid cod liver oil if diabetic.
A rich source of important minerals.
Do not take calcium and manganese together—they compete for absorption. Vital in mineral metabolism.
Contains essential minerals.
Promotes normal growth. Consider injections.
Important for collagen and connective tissue.

CONSIDERATIONS

- Good sources of easy to assimilate calcium are buckwheat, buttermilk, cheese, dandelion greens, flounder, kefir, kelp, molasses, nuts and seeds, oats, seaweed, tofu, most vegetables, wheat germ, whole wheat products, and yogurt. Broccoli, kale, and turnip greens are also good vegetable sources without high levels of oxalic acid, which inhibits calcium absorption. Also good to eat are sardines and salmon with bones.

HERBS

- Try feverfew, horsetail (silicon), oatstraw (a form of silica), and shavegrass if you have osteoporosis.

RECOMMENDATIONS

- The elderly lack sufficient stomach acid and should include calcium lactate (if not allergic to milk) or calcium phosphate to their diet.
- Keep active, and exercise regularly. Calcium loss results from lack of exercise, but can be reversed with sensible exercise.
- DLPA (DL-Phenylalanine), found in health food stores, is good for bone pain. Take on an empty stomach with vitamin B₁₂ and vitamin C. However, do not use if suffering from high blood pressure or if you are pregnant.

- Recently approved by the FDA, the prescription drug calcitonin is said to have no side effects even with long-term range. Do not use if you have a history of kidney stones. Studies show that calcitonin prevents further loss of bone mass in 70 percent of patients.
- If taking diuretics, thyroid supplements, or blood-thinning drugs, increase the amount of calcium prescribed. The use of thiazide diuretics is dangerous and can cause kidney stones. Do not use this diuretic with calcium and vitamin D.
- Consume whole grains at a different time than calcium because whole grains contain a substance that binds the calcium and prevents its uptake. Calcium is best absorbed at bedtime and also aids in sleeping.

- Have a fair complexion.
- Are thin and have small bones.
- Have experienced an early menopause naturally.
- Have a family history of osteoporosis.
- Have never been pregnant.
- Smoke.
- Are not physically active.
- Drink excessive amounts of alcohol.
- Have a high intake of coffee, tea, or cola.
- Have a low dietary calcium intake.
- Regularly use cortisone, anti-seizure medication, or anticoagulants.
- Do not exercise.
- Have chronic liver or kidney disease, or overactive endocrine glands.
- Have a low calcium intake and a high phosphorus diet.
- Have digestive disorders.
- Have had their ovaries removed.
- Avoid phosphate-containing drinks and foods such as soft drinks, high-protein animal foods, and alcohol.