



Introductions

Arthritis is the inflammation of one or more joints. It is characterized by pain and stiffness (especially in the morning or after exercise), swelling, deformity and/or a diminished range of motion. Bone growths or spurs may develop in the affected joints, increasing pain and decreasing mobility. There may even be audible cracking or grating noises when the joint moves.

More than 55 million Americans suffer from osteoarthritis, rheumatoid arthritis, and the related conditions:

- Gout
- Lupus
- Lyme disease
- Psoriatic arthritis
- Bursitis
- Scleroderma
- Reiter's syndrome
- Sjogren's syndrome
- Ankylosing spondylitis
- Fibromyalgia
- Juvenile arthritis

As a matter of fact, arthritis and other diseases of the musculoskeletal system are the primary source of disability in the United States today.

For anyone to understand diseases of the joints, you need to look at the normal healthy joint. Joints are held together by a joint capsule that is designed to allow smooth movement between adjacent bones. In joints with the most mobility, which are commonly affected by arthritic diseases, bone ends are covered by articular cartilage over which the joint moves. A thin synovial membrane encloses the joint space itself. It then secretes a synovial fluid that lubricates the space between the cartilage-covered, joint-forming bones. The cartilage contains no blood vessels or nerves and receives its nutrients by distribution from the synovial fluid and from the bone. Thanks to this viscous fluid, and to the smooth, rubbery, blue-white cartilage covering the ends of the bones, the bones within the joint normally glide smoothly past one another. A problem arising in any of these areas can result in arthritis.

Arthritis may appear suddenly or come on gradually. Some people feel a sharp burning or grinding pain. Others compare the pain to that of a toothache. Moving the joint usually hurts, although sometimes there is only stiffness. The swelling and deformity that takes place in arthritic joints can result from a thickening of the synovial membrane, an increase in the secretion of synovial fluid, enlargement of the bones, or some combination of these factors.

Joint functioning properly depends on the health of the cartilage in the joint and the synovial membrane. As we age, the ability to restore and maintain a normal cartilage structure decreases. The activity of important repair enzymes is reduced, the water content diminished, and the joints become more prone to damage. The once-smooth surface of cartilage becomes rough, resulting in friction. The cartilage begins to break down, and the normally smooth sliding surfaces of the bones become pitted and irregular.

Constant joint pain, immobility, and/or stiffness can affect a person's quality of life. Sadly, as a society, we pretty much accept these conditions as a normal part of aging. There is hope, however; as scientists are just now beginning to understand the specific mechanisms involved in the development of arthritis and how to effectively correct them. A compelling body of evidence shows that the proper combination of natural therapies may work better most prescription drugs, and by taking advantage of this nutritional information, one can attain not only symptomatic relief, but actually intercede at the root of the problem and assist the body to rebuild functioning joints.

There are many different types of arthritis. Here we primarily discuss the most common forms:

• Osteoarthritis (also called degenerative joint disease)

This involves the deterioration of the cartilage protecting the ends of the bones. It is sometimes caused by injury, strain, or an inherited defect in the protein that forms cartilage. More often than not, it is a result of the wear and tear of aging, diet, and lifestyle. The once-smooth surface of cartilage becomes rough, resulting in friction. The cartilage breaks down, and the normally smooth

sliding surface of the cartilage becomes pitted and irregular. Osteoarthritis affects the weight-bearing joints—the knees, hips and back—most severely, but it also commonly affects the hands and the knuckles. The tendons, ligaments, and muscles holding the joint together become weaker, and the joint becomes deformed, painful and stiff. The cartilage breaks down, and the normally smooth sliding surface of the cartilage becomes pitted and irregular. Osteoarthritis affects the weight-bearing joints—the knees, hips and back—most severely, but it also commonly affects the hands and the knuckles. The tendons, ligaments, and muscles holding the joint together become weaker, and the joint becomes deformed, painful and stiff. There is usually some stiffness and pain (more stiffness than pain at first), with little or no swelling. Any resulting disability is most often minor. However, fractures become an increasing risk because osteoarthritis makes the bones brittle. As osteoarthritis advances, bony outgrowths called osteophytes tend to develop. These are often referred to as “spurs”, can be detected by x-rays, and develop near degenerated cartilage in the neck or in the lower back. This does not change a person’s appearance.

Osteoarthritis rarely develops before the age of forty, but it affects nearly everyone past the age of sixty. It may be so mild that a person is unaware of it until it appears on an x-ray. Nearly three times as many women as men have osteoarthritis.

• **Rheumatoid arthritis (RA)**

This is a type of inflammatory arthritis and is an autoimmune disorder. An overactive immune system can be just as harmful as a weak one. As with other autoimmune disorders, rheumatoid arthritis is a “self-attacking” disease. The body’s system improperly identifies the synovial membrane as foreign. Inflammation occurs, damaging cartilage and tissues in and around the joints. In many cases, the bone surfaces are destroyed as well because inflammation in the joints triggers the production of enzymes that slowly digest adjacent tissue. The body then replaces this damaged tissue with scar tissue, forcing normal spaces within the joints to become narrow and the bones to fuse together.

Rheumatoid arthritis frequently occurs in people under forty years of age. Currently, 2.1 million Americans have this disabling disease, 75% of them female. Juvenile arthritis is a form of rheumatoid arthritis that strikes children under the age of sixteen. It affects 71,000 young Americans—again—most of them female.

The onset of rheumatoid arthritis is associated with physical or emotional stress, poor nutrition, and bacterial infection. Specialists have discovered that the blood of many people with rheumatoid arthritis contains antibodies called “rheumatoid factors,” a finding that can aid in the diagnosis of the condition. Whereas osteoarthritis affects individual joints, rheumatoid arthritis affects all of the body’s synovial joints. Joints affected by rheumatoid arthritis tend to make a sound like crinkling cellophane, while osteoarthritis joints make popping, clicking and banging noises. In addition, arthritis can also be caused by viral, bacterial or fungal infection of a joint. The microorganisms most commonly involved in this type of the disorder are streptococci, staphylococci, gonococci, hemophilus or tubercle bacilli, and fungi such as *Candida albicans*. In most cases, the infecting organism travels to the joint through the bloodstream from an infection in another area of the body, but injury or even surgery can result in joint infection as well. Symptoms include swelling, redness, pain, and tenderness in the affected joint, often accompanied by systemic symptoms of infection such as chills, fever, and body aches.

• **Spondyloarthropathies**

This is a group of rheumatic disorders that have a tendency to affect the spine. Ankylosing spondylitis (AS) is the most common of these.

With this disorder, specific joints of the spine become inflamed, then stiffen and become rigid. If it is confined to the lower back, AS causes virtually no limitation of movement. In certain cases, however, the complete spine may become rigid and bent. If the joints between the ribs and spine are affected, breathing problems may result as the chest wall’s ability to expand becomes limited. Postural deformities are common. Statistics state that more than 400,000 Americans suffer from AS. Twice as many men as women have this disorder.

• **Gout**

This is an acute form of inflammatory arthritis that occurs most often in people who are overweight and/or who indulge frequently in rich foods and alcohol. It normally attacks the smaller joints of the feet and hands, especially the big toe. This is where deposits of crystallized uric acid salt in the joint cause swelling, redness, and a sensation of heat and extreme pain. There are about 1 million Americans that suffer from gout, and unlike most forms of arthritis, gout overwhelmingly affects men. Ninety percent of those who suffer from gout are male

Benefits of a Natural Approach

It is not uncommon for an arthritis sufferer to have varying degrees of more than one type of arthritis. Regardless of the type of arthritis, the end result is pain and inflammation at the sight of affliction. This fact has led to the popularity of over-the-counter and prescription medications to combat inflammation, and thus diminish pain. Medicines such as aspirin and non-steroidal anti-inflammatory drugs come with long term side effects, including a worsening of the arthritic condition. They work by interfering with hormone-like compounds called prostaglandins.

For decades, medical researchers, including those with the Arthritis Foundation itself, refused to acknowledge that diet, nutrition, and allergies could play a role in immune function and arthritis. Today, however; studies have shown that arthritis can be reversible, and in some cases, curable with proper diet, supplements, and lifestyle changes. These changes can not only relieve the inflammation and pain but stop degeneration and rejuvenate the affected joints.

Unlike toxic drugs, natural therapies and diet modification can often provide relief from chronic inflammation and pain. One of the most compelling reasons for using natural therapies in arthritic conditions is that while some drugs can cause cartilage destruction, natural therapies correct the underlying factors involved in arthritic cartilage degeneration. Natural therapies have been shown to perform by the following mechanisms:

- Attracting water to the cartilage locations to enhance synovial lubrication.
- Inhibiting COX-2 (enzyme responsible for prostaglandins and inflammation)
- Suppressing cartilage-destroying enzymes, collagenase and phospholipase
- Suppressing TNF-alpha, IL-1b, and IL-6 (cytokines, responsible for systemic inflammation and hypersensitivity)
- Inhibiting the formation of PE2 (inflammatory compound)
- Promoting the synthesis of proteoglycans and glycosaminoglycans in the joints
- Reducing production of LTB4 (facilitates IL-1b and IL-6)

The principle keys for treating and preventing arthritis is proper diet and nutrition, detoxification, stress reduction and exercise. As it is with most programs, there is no single treatment that is right for everyone. Since there are different forms of arthritis, there is not a single prescription that will help all sufferers. The treatment needs to be tailored to fit the individual. It is for this reason that we would like to provide the different modalities that are available and that have had great success with arthritis.

The Nutrition Connection

Standard research, particularly on the subject of rheumatoid arthritis, but also in osteoarthritis, has proven that in numerous cases, the inflammation of arthritis can be significantly and positively affected by nutrition. The influence of diet on arthritis is almost certainly related to the immense connection between the intestinal lining, where food is absorbed, and the surrounding immune system structures known as gut-associated lymphoid tissue. The digestive tract is the location of specialized lymphoid tissue that is imperative for protection against the adverse effects of intestinal microbes such as bacteria, viruses, and assorted microorganisms that live in the intestinal tract. In addition to protecting, this lymphoid tissue in your gut prevents systemic immune responses to food antigens and plays a vital role in maintaining tolerance to self.

According to H.M. Buchanan, from the Department of Dietetics, University of Sydney, Royal North Shore Hospital, St Leonards, New South Wales, Australia, "There is evidence from several well documented case reports that there are some patients with rheumatoid arthritis who may develop aggravation of their arthritis as a result of allergy to their diet."

Five years later, researchers from the Department of General Practice, University of Oslo, Norway released a study that showed the effect of a vegetarian diet on rheumatoid arthritis over a two-year period. According to H.M. Buchanan, from the Department of Dietetics, University of Sydney, Royal North Shore Hospital, St Leonards, New South Wales, Australia, "There is evidence from several well documented case reports that there are some patients with rheumatoid arthritis who may develop aggravation of their arthritis as a result of allergy to their diet." Five years later, researchers from the Department of General Practice, University of Oslo, Norway released a study that showed the effect of a vegetarian diet on rheumatoid arthritis over a two-year period. This research revealed that not only do omnivores with rheumatoid arthritis improve with fasting and a subsequent vegetarian diet, but immune issues, bowel bacterial balance and several other maladies associated with rheumatoid arthritis also change for the better. Some of the subjects in the study consumed a strictly uncooked vegan diet that consisted of: berries, fruits, vegetables, roots, nuts, germinated seeds and sprouts. They showed highly increased levels of alpha and beta-carotenes, lycopene, and lutein in their blood. In addition, increases in vitamin C and vitamin E were very significant.

In contrast to the above, there are many doctors, such as Michael Murray of Seattle, Washington that believe that the consumption of cold water fish such as mackerel, herring, sardines, and salmon will significantly reduce inflammatory/allergic responses. These are a source of essential fatty acids that are valuable for the prevention of arthritis because of their anti-inflammatory characteristics. Along the same vein, studies have shown supplementing your diet with a good source of cod liver oil, may also reduce the inflammatory process.

The primary keys for treating and preventing arthritis are proper diet and nutrition, detoxification, and stress reduction. Special care should also be taken to avoid substances that might cause allergic reactions in the body. If needed, natural hormonal supplementation and replacement is essential. Pain management and correction of skeletal and postural problems can be attended to through an assortment of other modalities, including environmental medicine, herbal medicine, bodywork, chiropractic, acupuncture and Ayurvedic medicine.

The following dietary changes are suggested as a preliminary start to fighting arthritis. If followed, the diet is likely to bring fairly significant relief to those who are nutritional responders:

- **Avoid the customary food allergens-** wheat, rye, barley, and oats (all contain a protein called gluten). Corn, dairy products, pasta, white bread and red meats. Considerable inflammation may occur with the nightshade family foods such as peppers, potatoes, tomatoes and eggplant. These should be avoided for at least the first 2-3 weeks.
- **Citrus fruits should not be eaten for at least 2 weeks-**They should then be re-introduced once every three days. If you are intolerant, you should know in about 1-2 days. If this is the case, you should eliminate this food again completely.
- **Eat plenty of organic sulfur-containing vegetables-** broccoli, cauliflower, cabbage, onion, leeks, asparagus, Brussels sprouts and garlic.
- **Drink plenty of freshly made organic juices-** such as apple, carrot, cabbage, celery and spinach. Make sure your vegetables are organic, get out your juicer and drink up!!
- **Drink plenty of distilled or purified/filtered water every day-** You might want to read a book called, “Your Body’s Many Cries for Water,” by Doctor Fereydoon Batmanghelidj. He states that your body has no water storage system to draw from in times of need, and that the parts of the body that suffer most from a shortage of water are those without direct vascular circulation, especially the joint cartilages in fingers, knees, and the vertebrae. “Chronic pains of the body are often indicators of chronic dehydration”, according to Dr. Batmanghelidj.
- **Eat plenty of cold water fish-** herring, mackerel, wild salmon and sardines. You can even have any form of soy for protein.
- **Try and keep to foods that are low on the glycemic index-** oatmeal, quinoa, fresh fruits and vegetables, olive oil, flaxseed oil, nuts and whey proteins.
- **An important gateway into treating arthritis lies in achieving normal body weight-** excess weight puts amplified stress on weight-bearing joints affected with the disease.
- **Gout sufferers should also maintain a low-purine diet-** completely omits organ meats, meats, shellfish, yeast (baker’s and brewer’s), herring, sardines, mackerel and anchovies. The elimination of alcohol is imperative, as it increases uric acid production and reduces uric acid excretion in the kidneys. In addition, foods with moderate levels of protein, including dried legumes, spinach, asparagus, fish, poultry and mushrooms should be curtailed.

Organic cherry juice is a must for gout sufferers and found to favorably affect collagen metabolism, as to prevent and reduce inflammation of joints.

You will probably experience detoxification symptoms by the 2nd or 3rd day and it is usually resolved by the end of the week. Depending on how toxic you were to begin with, the symptoms may include a moderate to strong headache, increase in muscular aches and pains, weakness, light-headedness, everything is in slow motion, loose bowels or even a cessation of bowel movements.

Allergy / Arthritis Connection

Doctor Theron G. Randolph of Illinois was the founder of environmental medicine. Over the course of his research, he tested over 1000 arthritis patients with commonly eaten foods and chemical substances. He tested substances ranging from natural gas, auto exhaust, paints, perfume, hair spray, insecticides, tobacco and smoke to find out which of these substances caused their symptoms. The correlation between arthritis and allergies was found to be quite significant. In addition, Doctor Marshall Mandell, the author of, Dr. Mandell’s Allergy-Free Cookbook, tested over 6000 patients. He found that foods, chemicals, grasses, pollen, molds, and other airborne substances caused allergic reactions in the joints of nearly 85% of arthritics he tested.

Various other studies have shown that numerous foods, food additives, as well as foreign invaders like protozoa, bacteria, yeast, and fungus can trigger or aggravate arthritic symptoms. In the case of food allergies, eating too much of a certain food too often is another problem. “Most people eat the same few foods over and over again, sometimes quite literally ‘ad nauseam,’” wrote Doctor Randolph.

Unfortunately, allergy testing is often very expensive, but you can pinpoint specific symptoms without undergoing expensive tests. There are several good sources to guide you through the process that you can do yourself. Here are a few of the books that you can

buy and follow to find out whether food allergies are the culprit.

“Coping With Food Allergy”, by Doctor Claude Frazier

“The Arthritis Cure”, by Doctor Jason Theodosakis

“Hidden Food Allergies”, by Doctor Stephen Astor

“Are You Sure It’s Arthritis”, by Doctor Paul Davidson

Heavy Metal Connection

Heavy metals are the most dangerous environmental toxins today. Our body does not metabolize heavy metals—they accumulate in the tissue, and what’s more, they participate in the essential body chemistry. Essential minerals that are so important to us, cannot be absorbed because of the molecular mimicry of heavy metals that produce a replacement action. What happens then? An overproduction of free radicals or uncontrolled oxidation occurs. High oxidative stress then leads to acidemia (blood disorder) which leads to an anaerobic metabolic mutation of once symbiotic microorganisms.

The bottom line is that the toxic by-products of these pathogenic microbes bring about chronic inflammation, immune system breakdown leading to chronic diseases, arthritis and cancer. Chronic exposure to metals such as cadmium, which you can find in batteries, color pigments used in paint and plastics, electroplating and galvanizing processes, cigarettes and many other places is one culprit of arthritic symptoms. Chronic or low levels of exposure to lead or mercury can generate symptoms of arthritis as well. You can find lead in dozens of places such as: plumbing pipes and solder in older houses, drinking water, printing ink, gasoline, fertilizers, cosmetics, hobby paints, hair colorings and even playground dirt. Both mercury and lead have been linked to the body’s immune system attacking its own cells which can lead to joint disease such as rheumatoid arthritis. The biggest source for mercury is amalgam fillings, but you can also find it in vaccines, thermometers, fish, fungicides and in the mining industry.

The diagnosis of heavy metal toxicity is important and requires the results of either simple at home kits to detect the presence of heavy metal ions in urine, or more advanced laboratory tests for more specific results. This can be done via blood tests, liver and renal function tests, urinalysis, fecal tests or hair analysis.

Special Considerations

Silicone Breast Implants- If you have silicone gel breast implants or other silicone prostheses, they may cause arthritis-like symptoms, such as swelling of joints, contractures, fever, chronic fatigue, and pain. University of California in Davis completed a study that involved 46 women with implants. They found that 16 of the women had antibodies that attacked collagen, whereas in a group of 45 women without implants, only four had the anti-bodies. Some women have seen all their arthritic symptoms disappear after having the implants removed.

Chlamydia- Chlamydia is the organism that is responsible for many cases of urethritis and has now been linked to a form of arthritis that affects young women. In nearly half of the women with unexplained arthritis tested in one study, Chlamydia was found in the joints. Seventy-five percent had elevated levels of antibodies to Chlamydia in their blood.

Ulcerative Colitis- In the very early stages of ulcerative colitis, symptoms that mimic arthritis may occur. Because this may take place before there are any abdominal symptoms, it can lead to misdiagnosis and delayed treatment. Please make sure your physician rules this out.

Therapeutic Recommendations: Nutrients

Avocado / Soybean unsaponifiables- Some research trials have studied a product called 'avocado/soybean unsaponifiables'. This is an extract derived from one-third avocado oil and two-thirds soybean oil. The results of the trials showed that some people with OA who took this product had less pain and required lesser amounts of usual painkillers. However, it is not clear how it works. It is thought that one or more of the compounds in this mixture may have some kind of protective effect on joints. Some manufacturers are starting to make capsules containing this mixture to buy as a food supplement. Further research is needed to clarify the role of this product. Doctor Jason Theodosakis, who wrote, “The Arthritis Cure”, recommends this particular supplement. He calls it Avosoy, and you can purchase it on the internet by doing a search for Avosoy.

S-Adenosylmethionine (SAME)- This is the activated form of methionine. SAME is a multi-talented supplement that has several metabolic actions in different parts of the body, and can have many health benefits. One study done in The Netherlands was in regard to the effect of free radicals on rheumatoid arthritis. They found that the synovial fluid in RA patients contains nonfunctioning T-cells. This shortfall is caused by a lack of IL-2, the cytokine crucial for T-cell initiation. Free radicals are to blame, although all the science

has not been worked out. What they did discover was that N-acetyl-L-cysteine (NAC) reinstates T-cell activity. It was then theorized that SAME, just like NAC, shields synovial cells by reversing glutathione depletion. Why? Because, SAME acts as a precursor to glutathione production. In addition, it may protect synovial cells by blocking the enzymes that degrade cartilage. Lastly, the research has shown that it may also protect important cartilage proteins and proteoglycans in the joint lining.

In studies done with regard to Osteoarthritis, they have shown that using SAME may reverse the underlying process of OA by stimulating new cartilage growth. In four double-blind studies, SAME was compared either to placebos and NSAIDS. SAME was better tolerated than the NSAIDS and was more effective in reducing functional limitation.

MSM (methylsulfonylmethane)- The bulk of the research on MSM has been done under the direction of Doctor Stanley Jacob and Doctor Robert Herschler at the Oregon Health Sciences Institute in Portland. They have been examining the effects of MSM and dimethyl sulfoxide (DMSO) for 40 years. In case you're wondering what the connection is between MSM and DMSO—MSM is the major metabolite of DMSO with the added advantage that it remains in the body longer than DMSO and it does not produce sulfur's offending odor.

Sulfur is as basic to life as water and air, and yet its value is commonly overlooked. It is the eighth most abundant element in all living organisms and plays an important role in human nutrition. As a matter of fact, it is an important element in more than 150 compounds in the body—tissues, enzymes, hormones, anti-bodies and antioxidants. Sulfur is stored in every cell of the body—particularly in the hair, nails and connective tissue of the joints and skin. Sulfur is an important structural component of the connective tissue that joins muscles to bones.

*What is nature's richest source of sulfur? Answer: **MSM***

Doctor Jacob's research provided solid evidence of the power of MSM to perform important tasks related to joint problems. Because sulfur bonds are essential structural features in all connective tissues, sulfurous compounds such as MSM have tremendous potential to benefit people with joint-cartilage degenerative conditions. Although it remains to be studied more, MSM's high sulfur content may also prove beneficial in treating similar diseases such as rheumatoid arthritis, osteoarthritis and temporal mandibular joint dysfunction (TMJ).

One preliminary double-blind study conducted by UCLA School of Medicine and Dr Ronald M Lawrence, Assistant Clinical Professor of the UCLA School of Medicine, followed 16 patients with degenerative arthritis or joint disease. The patients who took MSM daily for six weeks reported an 80% reduction in pain. Only two of those taking the placebo reported decreased pain—20%. Doctor Lawrence received the Healthy American Fitness Leaders Award, presented by the president's council on physical fitness and sports, as well as the U.S. Junior Chamber of Commerce.

Before the dawn of highly processed modern diets, foods were an important sulfur source. Due to air, soil and water pollution, over-farming, irrigation, and deforestation, our food is severely mineral depleted. It is therefore very important that you replace these minerals—especially sulfur.

The best type of MSM to take are the raw crystals. It is the most bio-available and economical form. It is more economical to take higher dosages of pure crystals for therapeutic benefits rather than tons of capsules. Please make sure that your source is pure and does not have fillers as there are many sub par msm supplements on the market.

Suggested Dosage: 3 Tablespoons per day, divided into meals.

Note: Several other nutrients, such as vitamin C and the trace minerals zinc, copper and silicon are needed in conjunction with MSM for optimal results.

Recommendation: 99.9% Pure OptiMSM Crystals

Glucosamine and Chondroitin Sulfate- Glucosamine is often sold in conjunction with chondroitin and is made from the shells of shrimp, lobster and crabs. Over 150 studies and 20 clinical trials point out that it not only relieves pain but also builds cartilage. Glucosamine also reportedly lubricates joints by keeping cartilage pliable.

Chondroitin is a chain of repeating molecules that add elasticity to cartilage. It comes from the cartilage of animals such as cows, sharks and pig parts. By supplementing with chondroitin, you are increasing collagen's ability to absorb shock. It has not been studied as much as glucosamine, but what well designed studies were done indicate that chondroitin sulfate can ease pain and increase mobility in arthritic joints.

Note: When purchasing chondroitin, be sure that you are getting the real deal. According to Tod Cooperman, who is the President of Consumer Lab (an independent testing facility), chondroitin is ten times more expensive than glucosamine. The key is to look for products that contain only chondroitin sulfate and stay away from those that include "chondroitin complex or compound" on the label.

Recommendation: Irwin Naturals 3-in-1 Joint Formula

Omega-3 Oils- It is the prostaglandins in the body that regulate the inflammatory response. In a healthy body, anti-inflammatory prostaglandins are produced from dietary ingestion of healthy seed oils such as flaxseed oil, or deep water fish oils. It is the high content of omega-3 fatty acids in these sources that leads to the production of anti-inflammatory prostaglandins. Omega-3 oils have been scientifically proven to be powerful anti-inflammatory agents. In contrast, a high dietary ingestion of omega-6 rich oils, such as corn, safflower, and sunflower, as well as animal meats, can lead to the production of inflammatory prostaglandins, worsening the symptoms of inflammatory conditions. The high prevalence of arthritis and other inflammatory conditions may be due largely to the fact that we ingest far too much omega-6 rich oils and animal meats in proportion to the amount of omega-3 fatty acids we consume. This shift in dietary ingestion of omega-3 to omega-6 has been well documented over the past 100 years. One study concluded that arthritics suffer from a 40% deficiency in essential fatty acids compared to other Americans, and over a 100% deficiency compared to people from non-industrialized nations.

Unlike medications that interfere with prostaglandin metabolism, omega-3 oils naturally temper the inflammatory prostaglandins resulting in a decrease in painful inflammation. The difference between the drug approach and the path taken with omega-3 oils is that the oils do not come with the common side effects prevalent in medications. Not only do the omega-3 oils come without side effects, but they have been medically proven to benefit as many as 60 other common afflictions. Beyond the power of regulating prostaglandins, omega-3 oils have been found to augment the immune system, lessening the severity of auto-immune conditions, including rheumatoid arthritis.

Note: Please make sure that when purchasing flaxseed oil, it is in a refrigerated section of your health food store. In addition, when purchasing fish oil, it is imperative that you make sure that the fish they are using are cold water fish, void of heavy metal toxicity. The processing and packaging of the fish oil are crucial in determining its quality. Low quality oils may be quite unstable and contain significant amounts of mercury, pesticides, and undesirable oxidized products. High quality oils are stabilized with adequate amounts of vitamin E and are packaged in individual foil pouches or other packaging impervious to light and oxygen. Some very recent research carried out at the University of Minnesota found that emulsified fish oils are better absorbed than the straight oils in gelatin capsules.

Recommendation: Udo's Choice Oil Blend and Life Extension Foundation Arctic Cod Liver Oil

Gamma-Linolenic Acid (GLA)- This is a fatty acid found in oils such as evening primrose oil, borage oil and black currant seed oil. It has been successfully used to suppress chronic inflammation.

In a double-blind, placebo-controlled study with rheumatoid arthritis sufferers, black currant oil was given. The patients that received the oil showed reductions in the signs and symptoms of the disease. According to the researchers, the study revealed that black currant seed oil is a potentially effective treatment for active RA. In reviewing all the published literature on the use of GLA, it was found that it reduced the effects of autoimmune diseases on joint linings and there were no adverse reactions.

Recommendation: Life Extension Foundation Super GLA / DHA

Magnesium- Calcium and magnesium are vital nutrients in the fight against arthritis; however, most people consume too much calcium and not enough magnesium. High protein diets, which are normal for many people, contain an abundance of phosphorus, which binds up magnesium and makes it unavailable for the body's use. Magnesium is necessary for calcium's proper incorporation into bone, by preventing a build-up of calcium in the soft tissue and joints.

Magnesium should be used in conjunction with calcium in a 2:1 ratio (calcium to magnesium). Our whole family uses magnesium twice a day, and you will be surprised to know that helping your joints is not the only thing that it may be able to do. Below are some of the other things it may help your body combat. In my Father's case, it got him off blood pressure medication and back walking without any pains in his chest. He is 88 years old, still drives his own car and is sharp as a tack. In my case, it helped me get a better nights sleep. The list of magnesium benefits are infinite as they are directly and indirectly related to a slew of system functions:

- Prevent and treat heart disease, including angina and irregular heartbeat (arrhythmia)
- Control high blood pressure
- Limit complications of congestive heart failure
- Prevent diabetes complications
- Reduce the symptoms of Fibromyalgia
- Ease muscle cramps, aches and pains
- Protect against migraines
- Relieve PMS (premenstrual syndrome) discomforts
- Minimize the severity of asthma attacks
- Prevent osteoporosis
- Helps with insomnia

Recommendation: Peter Gillham's Natural Calm

Antioxidants- Just as oxidative stress or free-radical damage is an aspect of importance in the development of osteoarthritis, it is a major cause of most chronic degenerative diseases as well as aging. There is also solid evidence that oxidative damage occurs in rheumatoid arthritis patients. Vitamin C and vitamin E supplements have been studied and found to be important in the treatment of OA. If you are deficient in vitamin C, which is common with elderly people, it impairs the synthesis of collagen, the main protein of cartilage. Vitamin E has shown an ability to stimulate the production of cartilage components, such as glycosaminoglycans, as well as to combat the breakdown of cartilage. Diets rich in organic vegetables and fruits are likely to add important antioxidants to the body, however, this may not always be sufficient.

Selenium- This is an important antioxidant that plays a role in the body's utilization of oxygen. It is important that you use the most absorbable form of selenium (selenium L-methionine). It is essential for the functioning of the enzyme glutathione peroxidase, an important antioxidant whose primary role is the destruction of intracellular hydrogen peroxide and other hydroperoxides. Lastly, selenium plays a key role in metabolic pathways for excreting heavy metals from the body. This will protect your tissues from free radicals.

Suggested Dosage: Selenium can be toxic in large amounts, so about 200 mcg daily is sufficient. In addition, green leafy vegetables like spinach have bio-available forms of selenium, so eat or juice your greens.

Recommendation: Life Extension Super Selenium Complex

Alkaline Mineral Supplement- pH measures the acidity or alkalinity of a substance. The pH scale runs from 0-14, with 0 being the most acidic, 14 being the most alkaline, and 7 being neutral. To maintain our health, our bodies must maintain a pH very close to 7.4, which is just on the alkaline side of neutral. When the body is too acidic as a result of acid forming foods, high fat, mucus forming foods, and toxic food residues, disease and infections multiply. This is particularly true in cases of arthritis and rheumatic situations. The perfect scenario would be to balance each meal with 75% alkaline to 25% acidic to maintain health. Due to society's increasing consumption of proteins, colas, and other acidic foods coupled with decreasing consumption of alkaline-producing vegetables, alkaline problems are becoming more prevalent.

Acid generating foods include:

- Fruits: *cranberries, blueberries, dried fruit*
- Nuts & Grains: *oats, barley, rice, wheat, white bread, peanuts, walnuts, processed soybeans*
- Vegetables: *processed corn*
- Meat & Dairy: *beef, veal, turkey, chicken, ham, haddock, milk, cheese, yogurt, ice cream, butter*
- Beverage: *coffee, black tea, beer, soft drinks*
- Other: *sugar, chocolate, honey, aspirin, white vinegar*

Studies done in Germany revealed that all the patients diagnosed as having soft-tissue rheumatoid arthritis, Fibromyalgia, and other joint diseases were dramatically acidic. When given an alkaline mineral supplement for four weeks, the pain rating dropped an average of 49%.

Recommendation: Vaxa Buffer pH

Therapeutic Recommendations: Herbal

Nexrutine- This is a proprietary extract that has a long history in other cultures, but is new to Western medicine. It comes from the Phellodendron tree which is a member of the Rutacea plant family. Interestingly enough, this plant family has played a major role in Chinese medicine for the treatment of inflammation, abdominal pain, and gastrointestinal discomforts for some time.

In 2004, a double-blind placebo controlled study was done with 28 subjects that suffered extreme joint pain. The group who took Nexrutine, significantly improved on total quality of life measurements whereas the placebo group did not. This is an exciting supplement that has potent anti-inflammatory actions. It acts rapidly to alleviate the pain that is associated with arthritis as well as the joint and muscle soreness associated with extreme physical activity.

Another reason to use Nexrutine is its lack of side effects in contrast to products such as Ibuprofen, Naproxen and other Non-Steroidal Anti-inflammatory Drugs (NSAIDS). It is gentle on the stomach and has been shown to inhibit the Cox-2 enzyme (causes inflammation).

Yucca- Yucca extract is made from the yucca plant found in the Southwestern deserts of the US and also in Mexico. Yucca Schidigera has been used by the native Indians for thousands of years and is now being researched further by scientists, doctors,

universities and institutes around the world. Yucca has a high content of vitamins A, B-complex, vitamin C, in addition to high amounts of calcium, potassium, phosphorous, iron, manganese, and copper.

Yucca also contains a high potency, naturally occurring plant saponin, which gives it anti-inflammatory properties. Yucca acts as a blood purifier that is beneficial in the treatment of arthritis and inflammatory disorders. When 149 osteoarthritis patients were randomly given yucca, saponin extract or a placebo in periods ranging from 1 week to 15 months—the results were that 61% of the patients given yucca noted less swelling, pain and stiffness. For the study, the patients were using up to 500 mg of powdered yucca 2-3 times per day. No evidence of toxicity in lab studies were reported.

Sea Cucumber (beche-de-mer)- The clinical trials on sea cucumber are preliminary, but so far, the results look promising. These are animals that live on the Great Barrier Reef in Australia and the substance that they produce help to reduce inflammation, aid tissue repair, lubricate and cushion the joints. It has an ability to balance prostaglandins, which regulate the inflammatory process. It also contains Chondroitin, (mentioned under recommended nutrients) and mucopolusaccharides, which are often lacking in people with connective tissue disorders and arthritis. Some sufferers have had dramatic results taking this supplement, so we think it is worth a try. According to the preliminary studies, a 500-mg capsule 2 times per day was used.

Guggul- Western medicine put this Ayurvedic herb on the map for lowering cholesterol, but it is actually used for a variety of diseases. In the practice of Ayurvedic medicine, guggul has always been used for inflammatory conditions such as rheumatoid arthritis, osteoarthritis, psoriatic arthritis, nervous disorders, skin infections, urinary conditions and gonorrhea. An exceptionally recognized Ayurvedic preparation is called, “yograj guggul”, and is used for rheumatic conditions. In animal studies, guggul extract showed anti-inflammatory activity equal to phenylbutazone and ibuprofen and one fifth hydrocortisone. In cases of chronic inflammation, it demonstrated more effective than hydrocortisone, phenylbutazone and ibuprofen in reducing the acuteness of secondary lesions. In an auto immune disease such as rheumatoid arthritis, the immune system attacks it own tissue and generates an abundance of immune complexes which accumulate around the joint. This causes inflammation, a choking of the blood supply to the joint, and eventually the degeneration of the joint. Guggul extract stops the formation of these immune complexes and stops the hypersensitivity reactions, thereby reducing the inflammation.

Therapeutic Recommendations: Physical

Exercise- Yes, I know that a lot of you are going to be distraught when we suggest that you begin an exercise program. The mere idea of exercise can seem overwhelming when your joints are painful, but the LACK of exercise can cause the muscles around a joint to atrophy and deteriorate, thus causing more pain and decreased mobility in the long haul. Please....any exercise that you feel comfortable doing is fine. Some people find that swimming or pool exercises are the least traumatic and best tolerated by those with OA or RA. Others find that yoga is both soothing and energizing. Almost all community centers in towns and cities offer exercise programs or yoga that cost next to nothing.

Infrared Sauna- One of the most powerful detoxifiers is an infrared thermal sauna. It sweats toxins out through the skin. Studies have shown that most of us have between 400 and 800 chemical residues stored in the fat cells of our bodies; not to mention heavy metals. Most of these potentially harmful toxins become stored within our fat cells and cannot be metabolized (excreted). This is especially so for those with slow metabolism. The skin is a major eliminative organ, but most people’s skin is very inactive. If you smoke, you can actually touch your arm with your tongue and taste the bitter nicotine leaving your body in a sauna or steam room. Sedentary living and sun damage also inactivates the skin. As the toxins build up, they alter our metabolism, cause enzyme dysfunction and nutritional deficiencies, create hormonal imbalances, damage brain chemistry, and even cause cancer. As the toxins accumulate in different parts of the body and at different rates and in different combinations, there is a disturbingly large variety of different chronic illnesses which can result. Stored up toxins in the body can mimic any disease, and chronic diseases that were thought to have no known cause often disappear once toxic chemicals are gone.

The deep heat of Far Infrared Sauna helps peripheral blood vessels dilate, bringing relief and healing to muscle and soft tissue injuries. In Europe, radiant heat therapy is widely used to treat patients suffering form many forms of arthritis. It has been proven effective in the treatment of sprains, neuralgia, bursitis, muscle spasms, joint stiffness and many other musculoskeletal ailments.

Doctor Doris J. Rapp is a well-known allergist, homeopath and past president of the American Academy of Environmental Medicine. She stated unequivocally, “Everybody in this country needs to be detoxified because we have all become toxic dumpsites.” Doctor Rapp began using a far-infrared sauna after seeing a similar procedure being employed in a German clinic. She was impressed with the clinic’s work in detoxifying young children and infants.

The volume of sweat generated by the far-infrared sauna is profuse and may induce two or three times the sweat volume of conventional saunas, and yet they operate at a much cooler temperature range. The conventional sauna ranges from 180 to 235 degrees whereas the infrared range is from 110 to 130 degrees.

When you get serious about detoxification, you investigate every tool to facilitate the process. This is a great tool.

Suggested dosage: Try and locate a local spa or health club that has an infrared sauna available. A usual stay in a sauna is about 20 minutes, followed by a shower. It is not going to do much good to spend time detoxifying if you don't wash those toxins off afterwards. Please drink lots of clean water before, during and after to keep hydrated and clean the toxins out. I like putting a little organic lemon juice in the water for my kidneys, in addition to adding a good electrolyte and mineral replacement formula to your water such as Cellfood or Emergen-C. The more trips you make to the sauna the better you will feel and the healthier you will be.

Honeybee Venom- Bee stings have long been known to relieve some of the symptoms of rheumatoid arthritis, but only now has the reason for this been explained. According to a report in the journal, *Arthritis and Rheumatism*, Bee Venom contains a number of protein-like compounds, among them a substance called melittin. This substance appears to activate a key regulator of several inflammatory genes. The venom contains a powerful anti-inflammatory substance and also acts as an immune system stimulant. It is administered by injection, either with a hypodermic needle or by the bees themselves. It is believed to be effective for both osteoarthritis and rheumatoid arthritis, although the latter generally takes longer to respond. For more information, please go to the American Apitherapy Society at: www.apitherapy.org

Joint Replacement: An Innovative Approach to a Last Resort

If a joint is at risk of deteriorating completely, there are two choices open to orthopedic surgeons—repair or replace it. The problem, down the road, is that parts eventually wear away or even loosen over time and you would need additional invasive surgery (or sometimes more).

An innovative option that might be of interest to those of you facing possible joint replacement is a ground-breaking procedure that was developed and patented by Doctor Allan Dunn. It entails injecting human growth hormone directly into the affected joint spaces of the arthritic patient, which stimulates the growth of cartilage. This cartilage re-growth brings about increased space between the ends of the bones—in some cases up to 4 ml in volume. This is enough to alleviate the pain and stiffness in the affected joint. In addition, growth hormone also encourages production of collagen, the strong fibrous connective tissue that holds cartilage to bone, and supplies the structure for the gelatinous matrix, the flexible part of cartilage. When the growth hormone gives the cartilage the incentive it needs to regenerate, it replicates the same environment in which joint tissues grow during childhood. This procedure (IntraArticular Growth Hormone) has been used successfully on hips, knees, ankles, shoulders, and elbows.

You may contact Doctor Allan Dunn at: 888-848-6534

Recommendations On Where to Get Help

The Goldberg Clinic

Dr. Paul A. Goldberg, M.P.H., D.C., D.A.C.B.N.

Clinical Nutritionist, Clinical Epidemiologist, Diplomat of The American Board of Nutrition, Certified Natural Hygiene Practitioner

Focuses on reversal of chronic disease conditions such as: arthritis of all kinds, chronic fatigue syndrome, rheumatism, depression, asthma, allergies, muscle pains, weight problems, stress syndromes and chronic health problems.

Clinics located at:

Goldberg Clinic Atlanta

2480 Windy Hill Road Suite 203,

Marietta, Georgia 30067

(770) 974-7470

Goldberg Clinic South Florida

9121 North Military Trail, Suite 208

Palm Beach Gardens, Florida 33410

(561) 722-9637

Website address: www.goldbergclinic.com

E-mail: drpaulgoldberg@hotmail.com

The Schachter Center

Doctor Michael B. Schachter, M.D.

Two Executive Boulevard #202

Suffern, New York

(845) 368-4700

office@mbschachter.com

Specializing in complementary alternative medicine.

New Hope Health Clinic

Kent R. Bartell

ND/DC treats arthritis, cancer, fatigue, heavy metal toxicity, heart disease, Fibromyalgia, digestive disorders, immune system suppression, osteoporosis, hormonal problems, and endocrine dysfunction. They use a holistic approach, treating the immune system and finding the underlying causes of the condition, detoxification, Immune System Therapy, homeopathy, naturopathy, ozone therapy, oxidation, chelation, Autonomic Nervous System Repolarization, and nutritional support.

7320 South Yale Avenue

Tulsa OK, 74136

877- 544- HOPE (4673) or 918-488-8844

www.newhopehealthclinic.com

new@newhopehealthclinic.com

Vladimir Rizov, M.D. in TX

Addresses prostate cancer, cardiovascular disease, arthritis, fungal infections, and allergies. He uses laetrile, DMSO, vitamins, EDTA, enzymes, nutrition, detoxification, chelation, oxygen, and homeopathy.

Austin Rejuvenation Center

911 West Anderson Lane, #205

Austin, Texas 78757-1501

512-451-8149

512-451-0895 Fax

Center for Preventive Medicine & Homeopathy

Howard Posner, M.D.

Addresses heart disease, arthritis, Candida, hypertension, and infertility using megavitamins, herbs, homeopathic remedies, ayurveda, detoxification, and shark cartilage.

111 Bala Ave Bala

Cynwyd PA, 19004

610-667-2927

Health Achievement Center

Lance S. Wright, M.D. and Barbara Ramsay, R.N.

Addresses atherosclerosis, arthritis, toxic states, ADD, and chronic fatigue. Treatments include electro acupuncture, neural, chelation, bio-oxidation, hydrotherapy, environmental, chemical, and heavy metal detoxification.

Clinics located at:

112 S 4th St

Darby PA, 19023

610-461-6225

Pennsylvania Hospital Institute,

111 N 49th St

Philadelphia, PA 19139

Partners in Wellness

Dr. Nelly Macheret and Leonid Macheret, M.D.

Addresses arthritis, cardiovascular disorders, hypoglycemia, metabolic, diabetes, and fibromyalgia using preventive medicine, chelation, general practice, acupuncture, nutrition, orthomolecular, ethnic herbs, Ayurvedic, yoga, and osteopathic manipulation.

375 Glensprings Dr, Ste 400

Cincinnati, OH 45246

513-851-8790

The Ash Center for Comprehensive Medicine

Richard N. Ash, M.D., P.C.

They treat internal medicine, HIV, chronic fatigue, arthritis, heart disease, and allergies using chelation, oxidation, detoxification, and vitamins.

800 A 5th Ave
New York, NY 10021
212-758-3200

Carolina Health Quest

Keith Johnson, M.D. ASCVD, CAD, PVD

Addresses arthritis, COPD, CFIDS, and hormonal deficiencies using chelation, hydrogen peroxide, DMSO, ozone, hormone replacement, and colonics.

Clinics located at:
1111 Quewhiffle Rd
Aberdeen NC, 28315 USA
910-695-0335
1009 N Lake Park Blvd,
Box 16 Suite C-5
Carolina Beach, NC 28428

Atlanta Medical Clinic

Leo Modzinski, D.O., M.D. CFS, MCS, CAD

Addresses arthritis and metal toxicity using chelation, detoxification, diets, holistic therapy, and DMSO chelation therapy

12394 State St.
Atlanta MI, 49709
989-785-3759
modzinski@i2k.net

Ahmad Shamim, M.D.

He has been treating since 1976. He treats heart disease, hypertension, arthritis, diabetes, digestive disorders, yeast-related illnesses, and multiple sclerosis. Treatments include cleansing, detoxification, immune enhancement, herbal, enzymes, diet, glandular products, vitamins, minerals, fatty acids, and immune stimulators.

301-776-3700 (D.C. area)
410-792-0333 (MD area)

Hector E. Solorzano. MD

Addresses cancer, arthritis, lupus, AIDS, diabetes, migraine, multiple sclerosis, and chronic renal failure. They use 216 different alternative therapies, including, DMSO, chelation, enzymes, amino acids, shark cartilage, and electromagnetism.

www.hector.solorzano.com
hector@solorzano.com
I believe their clinic is in: Tepatitlan, Jalisco, Mexico.

Dayton Medical Office

Dr. Martin Dayton, D.O., M.D.

Addresses cancer, arteriosclerosis, arthritis, neurological disorders including MS, and general conditions. They specialize in preventive medicine including Insulin Potentiation Therapy, Poly MVA, Cantron, Qigong, low dose Naltrexone, chelation therapy, cell therapy, therapeutic nutrition, IV's, and oxidation therapy.

18600 Collins Ave.
Sunny Isles Beach, FL 33160
305-931-8484
www.daytonmedical.com
mdayton@the-beach.net

Perlmutter Health Center

David Perlmutter, M.D.

Addresses arthritis, bowel and digestive disorders, cardiovascular disease, respiratory conditions, dementia, Parkinson's, fibromyalgia, epilepsy, MS, Bell's palsy, Lyme, stroke, and cerebral palsy. Treatments include vitamins, nutrition, herbal, massage, and EDTA chelation.

800 Goodlette Rd N, #270
Naples, FL 34102

941-649-7400 941-649-6370
 www.perlhealth.com
 info@perlhealth.com

Ron F. Schmid, N.D. and Ellen Triplett, C.L.S.

Together they have over 15 years in practice treating autoimmune problems, lupus, rheumatoid arthritis, colitis, ulcers, eczema, and psoriasis. They use diet, supplements, and detoxification

Clinics located at:
 246 Federal Rd, Ste 33A
 Brookfield, CT 06804
 203-740-1549
 133 Reef Rd
 Fairfield, CT 06830.

Preventive Medicine Clinic

Neal Rouzier MD and David Freeman MD

Addresses Diabetes, Osteoporosis, Irritable Bowel, Chronic Fatigue, Fibromyalgia, Arthritis, Autoimmune dysfunction, and skin cancer. Treatments include Chelation, Natural Hormone Replacement, and Hyperbaric Oxygen Therapy.

Clinics located at:
 2825 Tahquitz Canyon Way, Ste. B200
 Palm Springs, CA 92262
 760-320-4292
 77-564 Country Club Dr.
 Building B Ste 320
 Palm Desert, CA 92211
 760-772-8883

Hospital Santa Monica

Kurt Donsbach, D.C., N.D.,

Addresses candida, multiple sclerosis, arthritis, heart disease, and cancer using ozone, hydrogen peroxide, photoluminescence, nutrition, bocine cartilage, biomagnetics, IV chelation, citrus pectin, hyperthermia, and colonics. They claim close to 100% success with arthritis. They use a product called CMO that is available from a number of sources to treat osteoarthritis.

Hospital Santa Monica
 1227 3rd Avenue
 Chula Vista, Ca 91911
 619-427-3007 (Ask for Alex)
 www.hospitalsantamonica.com

James R. Privitera, M.D.

Addresses arthritis, circulatory problems, preventive medicine, chronic fatigue, and PMS using nutrition, immunological enhancement, chelation, and dark field microscopy.

105 N Grandview Ave
 Covina CA 91723
 626-966-1618
 888-220-7888
<http://www.nutriscreen.com/>
 wcolsons@earthlink.net

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