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These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure or prevent any disease.

Want to Feel Good Again?



Try Some MSM

The body uses approximately 1/8 teaspoon of “MSM” each day.

Our bodies make new cells every day of our lives. It is very important that our glands produce the proper enzymes and hormones to keep our bodies healthy.

Without the proper amount of “MSM” (*Methylsulfonylmethane*) in our system, we may not be able to produce healthy cells.

We should get our “MSM” from our food. Most of this important nutrient is lost through heating, drying and processing our food.

When our bodies are deficient in “MSM”, may not be able to make enough healthy cells to overcome the effects of the unhealthy cells. We may then be subject to various illnesses, aches, pains, and allergies until we correct the problem with good healthy cells.



The information contained herein is for educational purposes only. It is not medical advice and is not intended to replace the advice or attention of health care professionals. Consult your physician before beginning or making changes in your diet, supplements or exercise program, for diagnosis and treatment of illness and injuries, and for advice regarding medications.

Cetyl Myristoleate by Ken Babal, C.N.

Most likely, you or someone you know has arthritis. It's the number one chronic illness in the US, affecting 37 million, or one in seven Americans, young and old.

Conventional medicine offers many medications to treat arthritis including corticosteroids and non-steroidal anti-inflammatory drugs. Both types are capable of producing complications including kidney and liver damage and gastric irritation or ulceration. One side effect rarely mentioned is inhibition of cartilage repair and worsening of the condition. Occasionally, patients die from these drugs. When one considers risks versus benefits, it is questionable whether the prescription drugs are any better than common aspirin.

Because of the seriousness of drug side effects, it is always good news when a natural product shows promise in helping arthritis sufferers. One such product is Cetyl Myristoleate, a new and unique, natural compound which is being hailed as possibly one of the, most significant nutritional break through of the 20th century.

What is Cetyl Myristoleate?

Cetyl Myristoleate (CMO) is described as an ester of a fatty acid. Fatty acids are the building blocks of fats and oils just as amino acids are the components of protein. Science now recognizes the value of certain oils in reducing inflammation as well as blood cholesterol. When the fatty acid myristoleic acid (a natural substance) is combined with a long-chain alcohol molecule, Cetyl alcohol, an ester of this fatty acid is created.

CMO appears to function in three different ways. One of its actions is that of a super lubricant, a kind of "WD-40 for the joints". Muscles and other tissues also benefit from the lubricating effect, which also helps to make them more pliable.

Second, CMO functions as an immune system modulator. This has been demonstrated by its effectiveness in autoimmune diseases (lupus, multiple sclerosis) as well as inflammatory conditions. Researchers are not sure how CMO performs in this role, but a possible explanation is that it helps to stimulate certain immune components such as immunoglobulins.

The third function of CMO is its anti-inflammatory effect. The believed mechanism is regulation of prostaglandin's, short-acting local hormones involved in many processes of the body, including the inflammatory response.

Reported Results

Doctors report that patients are demonstrating striking improvements with CMO. Typical reports are decreased stiffness, increased range of motion, and visible reduction of swelling, restored dexterity in finger joints and elimination of pain. Often, patients are able to discontinue pain medication and return to activities they could not perform prior to treatment. Testimonials from users describe other health benefits such as a positive effect on emphysema, hepatitis, hypertension, diabetes, eczema, psoriasis, colds, allergies, low back pain and headaches.

In a 1996 multi-center, one-month clinical study involving 431 patients with various forms of arthritis, significant improvement was found in 63.3% of those taking CMO. Established measurement criteria for arthritis were used in making the assessment. In those taking CMO combined with glucosamine hydrochloride, sea cucumber and hydrolyzed cartilage along with a topical preparation of CMO, an 87.3% improvement was achieved. In comparison, only 14.5% of the placebo group showed improvement. If a new prescription drug produced these results or was only 50% effective it would make headlines in a matter of days.

Like anything else, CMO does not work 100% of the time. Best results are obtained when it is part of a comprehensive program, which includes other appropriate nutritional

supplements, and dietary measures such as restriction of animal fat, sugar, alcohol, citrus juices and caffeine. Since it is the job of the liver to manage fats in the body, liver detoxification can be highly beneficial.

The Protocol

Because CMO has a relatively long life in the body, it does not have to be taken for long periods or in high doses. For most people, all that is needed is a one or two-month course through results are often obtained within 2 weeks. Some individuals may eventually need to take smaller "refresher" doses. As powerful as CMO is, including other supplements with proven benefits can enhance its effect. Glucosamine sulfate (GS), a component of cartilage, has been shown in clinical studies to stimulate production of cartilage constituents and is now considered an effective long-term nutritional treatment for arthritis. Omega 3 fish or flaxseed oils have therapeutic benefits in inflammatory and autoimmune diseases; and vitamin E and other anti-oxidants help to halt the downward spiral of cartilage degradation.

Is CMO Safe?

Thousands of people have taken CMO and there are no known adverse side effects. Some people may experience burping as they sometimes do with fish oils. Until further studies can be done, pregnant or lactating women should not take CMO. People with asthma or a history of severe allergic reactions should only take CMO under medical supervision.

Cetyl Myristoleate Creamy Lotion

This can be very beneficial for fungal infections (*includes toe nail, finger nail, or any other type of external fungal infections*), diaper rashes, external arthritic pain, swelling, inflammation, and any form of skin irritation. It's also great to use as an everyday skin moisturizer.

Classic Gold/Classic Clear

For beautiful hair and skin

Classic Gold Shampoo - All natural beauty shampoo, contains the world's finest vegetable based soap. This is a back to basic shampoo without the additives included in many products (chemicals used to add body and strip oils from hair).

Classic Clear Shampoo - All natural beauty shampoo, similar in feel to Classic Gold. No fragrance or color added.

Classic Clear Beauty Bar - This is an all natural body soap. This bar comes in 4, 8 and 16 ounce sizes.

COENZYME Q10

(CoQ10)... The Heart Nutrient

CoQ10 is actually a coenzyme and was first isolated from beef heart. Vitamins and minerals are primarily considered co-enzymes. A co-enzyme is dependent on the energy from another enzyme. It combines with that enzyme to form another enzyme. Remember, this co-enzyme *must* unite with another enzyme to function. Coenzyme Q10 is necessary for the body.

Because CoQ10 is involved in basic energy production by every cell, a deficiency can result if CoQ10 levels are even slightly less than optimal. A deficiency can occur simply because of natural causes. For example, around the age of 30 there is a natural decline in the body's ability to synthesize coenzyme Q10, therefore we need to put back the declining enzyme.

Researchers feel coenzyme Q10 plays an active role within the mitochondria (*the energy-producing unit of the cells of the body*). CoQ10 is an essential component of the mitochondria working as an enzyme to turn food into energy. It is widely recommended to repair heart damage and to boost the function of the heart, as well as a preventative used to safeguard

against heart attacks and valve damage. It is also seriously depleted by the use of prescription drugs.

In addition to doing great things for the heart and heart patients, coenzyme Q10 is used successfully to treat gum disease, revitalize muscles of muscular dystrophy victims, lower blood pressure and boost the immune system.

With low levels of coenzyme Q10, muscles won't function properly; nerve impulses from the brain slow down and the activity of all body organs slow down.

Studies show boosting daily levels of CoQ10 by approximately 30mg can have dramatic results.

CoQ10 is found in every living cell. It is responsible for producing cellular energy and is essential for life to exist. With, age insufficient levels of CoQ10 become more common, putting us at serious risk of illness and disease all throughout the body. CoQ10 has literally thousands of scientific studies and clinical trials demonstrating that it can help with numerous diseases and other health related problems. Below are some examples of how Coenzymes Q10 may help you.

- Protects and strengthens the cardiovascular system
- Revitalizes the immune system
- Retard aging and possible extend life
- Energizes the body and increases stamina
- Normalizes blood pressure
- Reduce weight naturally
- Benefit a variety of mitochondrial-related conditions including Alzheimer's, Parkinson's and Huntington's Diseases
- Control and possibly reverse gum-related problems
- Reduce photoaging (*wrinkles*) when applied directly to the skin.

Colostrum

Nature's all-natural immune builder

Colostrum is a specialized pre-milk secretion of the mammary gland. It is produced by all mammals during the last weeks of pregnancy, and is the first food available to the new born. Its most important function in nature is to boost and stimulate the immune system. Colostrum is an incredible source of growth stimulating factors, and is vital to the newborn's health, nutrition, and development.

Colostrum has been called "White Gold" because of its critical role in maintaining and enhancing the health and immunity of vulnerable newborns.

The benefits of colostrum can now be enjoyed by people of all ages. Bovine colostrum, which is even richer in immune-enhancing factors than human colostrums, is available as a potent immune-enhancing supplement. The structures of the immunoglobulins, nutrients, immunoenhancing molecules and growth factors in bovine colostrum are nearly identical to those found in human colostrums. The supplementations with bovine colostrums have been proven in studies published in peer-reviewed biomedical journals.

[Rich's] Detox and Support Formula

Rich's Detox and Support Formula is formulated to gently and naturally help the body to cleanse the liver, gallbladder, kidneys, and the colon with the combined ingredients:

Flax seed (175 mg) – Flax seeds are rich in alpha-linolenic acid, one of the omega-3 fatty acids, which seem to be helpful in reducing the risk of heart disease as well as helping to maintain a healthy digestive function.

Milk Thistle seed (75 mg) – The most important active constituents discovered so far, in Milk Thistle, are the flavonoid-like compounds called flavanolignans, the group of which is collectively called silymarin. These compounds have 2 major actions: 1) they bind to the liver cell membranes and protect them from being injured by foreign chemicals, endogenous and environmental toxins and free radical damage; and 2) they enter the liver cells and enhance their ability to produce enzymes vital to the liver's proper functioning.

Dandelion root (62.5 mg) – Dandelion is one of the highest natural sources of potassium, as well as numerous other vitamins and minerals. This herb has been found to act as a tonic and gentle diuretic to purify your blood, cleanse your system, dissolve kidney stones, and otherwise improve gastro-intestinal health; improve your bowel function, working equally well to relieve both constipation and diarrhea; and eliminating or drastically reducing acid indigestion and gas buildup by cutting the heaviness of fatty foods.

Bentonite Clay (62.5 mg) – A medicinal powdered clay, which is also known as montmorillonite, derived from deposits of weathered volcanic ash. It is one of the most effective natural intestinal detoxifying agents available and has been recognized as such for centuries by native peoples around the world. The clay contains minerals that, once inside the gastrointestinal tract, are able to absorb toxins and deliver mineral nutrients to an impressive degree. It is then eliminated from the body with the toxins bound to its multiple surfaces.

Pau D'Arco bark (62.5 mg) – This herb has been reported to be a natural blood cleanser and a builder. It seems to have antibiotic properties, which can aid in destroying viral infections in the body. It has been used to give the body strength and energy and to protect and strengthen the immune system.

Lactobacillus acidophilus (25 mg) – Best known of the friendly bacteria, it is an important ingredient in maintaining a healthy, balanced flora in the small intestines. *L. acidophilus* seems to provide various health benefits in the gastrointestinal tract by producing lactic acid, and suppressing harmful microbes in the intestine. Some suggest the use of *L. acidophilus* to re-implant friendly bacteria into the gastrointestinal system.

Bifidobacterium bifidum (25 mg) – These bacteria are natural inhabitants of the gastrointestinal system, particularly of the colon but also located in the large intestine. They tend to create a favorable environment for the growth of good bacteria that keeps the large intestine healthy. These bacteria help with the absorption of water from food and the processing of natural waste, promoting regular bowel movements to help eliminate toxins from the system.

Deglycyrrhized Licorice (DGL) (37.5 mg) – In China, licorice root has been called "The Great Detoxifier". It acts on the endocrine system and the liver as an anti-hepatotoxic. In DGL, the glycyrrhizin, a compound associated with high blood pressure, has been removed. DGL stimulates the normal defense mechanisms that prevent ulcer formation, and improves both the quality and quantity of the protective substances that line the intestinal tract. It has also been found to increase the life span of the intestinal cell and improve the blood supply to the intestinal lining.

Cascara Segrada bark (37.5 mg) – Considered one of the most useful among the popular botanical laxatives, cascara's mild yet effective action on the bowels makes it a favored mild laxative. It acts by increasing the muscular action of the intestines, toning and cleansing them.

Fenugreek seed (37.5 mg) – Fenugreek is an herb that has an ancient history. Its use has been valued in healing and reducing inflammation and soothing digestive problems.

Barberry root (37.5 mg) – Barberry is believed to be an excellent remedy for correcting liver function and promoting the flow of bile. It is a bitter tonic with mild laxative effects, believed to strengthen and cleanse the system.

Psyllium seed husk (37.5 mg) – Psyllium is a wonderful source of soluble fiber, acting as a bulking and cleansing agent and promoting smooth and easy bowel movements. Less harsh than bran, psyllium detoxifies while enhancing regular elimination.

Aloe Vera leaf (25 mg) – Aloe Vera is excellent for absorbing toxins and promoting growth of friendly "good" colon bacteria, which is required for good health and is thus often used in colon cleansing products.

Yellow Dock root (25 mg) – The blood cleansing properties of this root make it an outstanding remedy in all diseases associated with impurities in the blood. Its richness in organic iron also improves and enriches the quality of the blood. This root also contains anthraquinone glycosides, which seem to account for the laxative effect of this herb. In search for an explanation for yellow docks amazing blood purifying effects, research has thus far turned up only a high thiamine content as a possibility.

Bromelain (25 mg) – Bromelain is a general name for a family of sulfhydryl proteolytic enzymes obtained from the pineapple plant. It contributes to the digestion of protein, and may therefore be used as a digestive aid.

Turkey Rhubarb root (25 mg) – This remarkable detoxifying herb has been used throughout the centuries because of its healing properties. Rhubarb root purges the body of bile, parasites, and stagnating food by stimulating the gall duct to expel toxic waste matter. It has been shown to alleviate chronic liver problems by cleansing the liver and also to improve digestion and increase the appetite. It has also been shown to help heal ulcers, alleviate disorders of the spleen and colon, relieve constipation, and help heal hemorrhoids and bleeding in the upper digestive tract.

Calcium Citrate (25 mg) – This form of Calcium is known to be easily absorbed by the body and less likely to cause the constipation and gastrointestinal distress commonly associated with Calcium supplements. Calcium is important in preventing a number of diseases in addition to osteoporosis and necessary for protein synthesis, as well as protecting against dangerous hypertension and prevention of muscular cramps and numbness.

Papain (25 mg) – Papain is a protein-cleaving enzyme derived from papaya and certain other plants. It has a mild, soothing effect on the stomach and aids in protein digestion.

Cayenne (5 mg) – Cayenne is a blood red warming herb that has an invigorating effect on several body systems. It has been used for centuries to treat asthma, fevers, sore throats, respiratory infections, and digestive problems. It can relieve flatulence and stimulate the stomach and gastrointestinal tract, and it may also reduce blood cholesterol.

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[Rich's] Diabetes/Prostate Relief

Rich's Diabetes/Prostate Relief is a natural and effective way to aid in the relief of urination problems associated with diabetics and those with prostate ailments. If you are up and down many times a night having to go to the bathroom, then this relief formula is just for you.

Rich's Diabetes/Prostate Relief is best taken after meals with a suggested use of 1 to 2 capsules, until frequent urinating is diminished.

Each capsule contains the following:

Pumpkin Seed (250mg) – Pumpkin seed is a good source of zinc and unsaturated fatty acids, which are effective, help for prostate ailments.

Cholestatin (100mg) - Cholestatin is a plant sterol, rich in beta-sitosterol, campesterol and stigmasterol. These plant sterols can be utilized by the body to help maintain healthy cholesterol levels by blocking the absorption of dietary cholesterol. Recent Cholestatin research is beginning to demonstrate the reduction of and protection against benign prostatic hypertrophy (BPH-enlarged prostate).

Methylsulfonylmethane (MSM) (75mg) – MSM is needed by the body for proper enzyme activity and hormonal balance, along with the proper function of the immune system.

Saw Palmetto (37.5mg) – Saw Palmetto contains powerful phytonutrients shown in dozens of studies to interrupt the hormonal mechanism that causes the prostate to be enlarged.

Stinging Nettles Leaf (25mg) – Stinging Nettles Leaf contains phytosterols that produce a powerful anti-inflammatory effect on enlarged prostate tissue. When combined with an extract of the herb Pygeum Africanum, may inhibit the hormonal changes that lead to BPH.

Pygeum Africanum (12.5mg) – Pygeum Africanum contains vital nutrients shown to produce powerful anti-inflammatory effects on the prostate. It appears to work by reducing inflammation, promoting urination and ridding the prostate of cholesterol deposits that can occur with BPH.

Pregnenolone (7.5mg) – Pregnenolone, while not the most abundant naturally occurring hormone in the body, that title is given to DHEA, it is considered the real "Mother Hormone". The internal synthesis of steroid hormones begins when the body converts cholesterol to pregnenolone, creating the basic hormonal substance. Pregnenolone, as a natural hormone precursor, is then converted into DHEA, which in turn is converted into androgens, estrogens, and other steroids. Pregnenolone also has the ability to form other hormones such as progesterone. Like DHEA, our body's production of pregnenolone declines with age. Pregnenolone has been found to increase productivity by combating fatigue and increasing mental alertness and awareness, improve long term memory, improve mood, reduce stress and is found to be an excellent anti-inflammatory.

Alpha Lipoic Acid (5mg) – Alpha Lipoic Acid is a "universal" antioxidant and bio-energetic nutrient shown to restore proper glucose metabolism to diabetics. It has shown to be helpful in supporting your body's ability to nutritionally support normal insulin levels.

Lycopene (25mg) – Lycopene is a powerful antioxidant that may help prevent prostate cancer.

FOR IN

Glucosamine Hydrochloride

(Main ingredient)

Rich's For-In is specially formulated with Nutritional Sulfur (methylsulfonylmethane), Glucosamine HCl, Grape Seed Extract and Green Tea (as a vitamin C source). It was developed to help relieve joint, cartilage, tendon, and ligament conditions. The following will help explain the main ingredient in our For-In product and its benefits.

As humans age the amount of glucosamine normally synthesized by the body declines, leading to a deficiency in the production of these important biological chemicals that form the major cushioning ingredients of the joint fluids and surrounding tissues. This further leads to specific tissue weakness as tissues in the joints become damaged and the lubricating synovial

fluids in the joint spaces become thin and watery. The normal cushioning is lost leaving the bones and the cartilage to scrape against each other inside the joint space.

Over time, the only option you have is to use non-steroidal anti-inflammatory drugs (NSAIDs). These preparations may cause side effects like slowing down the body's rate of cartilage replacement and actually destroying cartilage. Other side effects include: gastrointestinal tract damage, hemorrhaging, tinnitus (ringing in the ears), edema (fluid retention) and sometimes kidney and liver damage.

After these products are no longer effective you can choose to: 1) live with it; or 2) undergo radical medical procedures like joint replacement surgery. This is where an orthopedic surgeon replaces your hip or knee with an artificial one. The procedure is complicated and the recovery time extensive. Because this is major surgery, your doctor may caution you that you may experience infection, blood clots, pneumonia or other complications following the operation. The bill can be tens of thousands of dollars.

Although scientific studies were conducted with glucosamine sulfate, the hydrochloride form is better assimilated by the body. Glucosamine hydrochloride demonstrates more stability, purity, and higher concentration when compared to glucosamine sulfate.

Glucosamine stimulates the body's manufacture of collagen, the protein portion of the fibrous substance that holds joints together. Collagen is also the main component of the shock-absorbing cushion called articular cartilage—the white smooth surface which covers the ends of body joints—such as those in the wrist, fingers, toes, ankles, knees, hips and between the discs of the spine.

Glucosamine helps detoxify and repair tough tissue, tendons and other connective tissues in the body. This product is not intended to diagnose, cure or prevent any diseases. Please consult your physician before beginning any new supplements.

Glucosamine

Glucosamine is a charged sugar molecule that is a key component of the extra cellular matrix of cartilage (*grout between the cartilage cells*). It is a natural substance found abundantly in the human body largely in cartilage, and plays an important role in health and resiliency. It absorbs and releases water with each step, thereby acting as a shock absorber for the joints. Glucosamine stimulates cartilage cells to synthesize glycosaminoglycans and proteoglycans. Most glucosamine is derived from shrimp and crab shells and chondroitin is derived from cartilage of cows, pigs, and sharks. A small percentage of individuals are allergic to glucosamine, especially those allergic to shellfish.

As we age, we lose some of the glucosamine and other substances in cartilage. This can lead to the thinning of cartilage, eventually causing the onset and progression of arthritis. Glucosamine has been reported to be effective in relieving pain and increasing range of motion in patients

with osteoarthritis. However, a small percentage of people find it helps with other minor musculoskeletal problems. Glucosamine has a beneficial effect on inflammation, mechanical arthritis, and immunological-reactive arthritis. 75-80% of all people who try glucosamine for osteoarthritis

report an improvement in both pain and mobility. Glucosamine has been almost exclusively tested in patients with osteoarthritis who have loss of cartilage tissue. No studies have determined if glucosamine works for rheumatoid arthritis. The mechanism of cartilage damage in osteoarthritis and rheumatoid arthritis are very different.

We are unaware of any research done with glucosamine in regards to pregnancy. There are no indications, based on glucosamine's very low risk and side effect profile, that it would interfere with pregnancy or harm a fetus. Reports have been made that glucosamine may slightly interfere with the activity of insulin. However, we won't know for certain until actual studies are done. Therefore, Diabetics and/or pregnant women should consult with their physician whether the benefits would outweigh any minute risk of potential of side effects. We are not aware of any interactions with glucosamine and blood pressure pills.

Glucosamine has not been tested in the young; we don't know how well it works in aches and pains due to various musculoskeletal conditions. There are no indications that glucosamine is harmful to children. In addition, no studies evaluating glucosamine in Lupus have been found. There are no known contradictions to taking

glucosamine in those with hyperglycemia; however, again, no formal studies have been done.

No firm data is yet available regarding glucosamine and blood sugar levels, however, since it is generally safe, it may be worthwhile to try 1,500 mg per day for 2 to 4 months. Maximum daily dose of glucosamine is about 3 to 5 gm, however, most people do well with 1.5 gm. 1,500 mg of glucosamine and chondroitin should not interfere to any significant degree with blood sugar levels. With more glucosamine there is more joint protection.

Studies have shown that chondroitin is converted into glucosamine in the digestion process. In studies done, giving glucosamine all at once or spread throughout the day; both ways appear to be equally effective. There is no known problem from taking too much glucosamine as excess unused glucosamine is converted into natural waste products and excreted. Further studies have shown there are no side effects to taking reasonable amounts of glucosamine. In conclusion, taking glucosamine directly is a more effective way to get your daily supply of glucosamine. However, as with any supplement, glucosamine may not work for everyone. This nutrient may not be appropriate for you. Check with your physician before taking Glucosamine.

Note: Glucosamine has been sparingly evaluated in conditions other than osteoarthritis. It is not clear whether this nutrient is helpful in those with damage to cartilage or joints due to musculoskeletal injuries.

Grape Seed Extract: (A Powerful Anti Oxidant)

Provides Nutritional Support For:

- Living Longer And Healthier
- Reducing Varicose Veins
- Preventing Development Of Diseases
- Improving Eyesight, The Eyes Of Youth
- Improving Flexibility of Joints And Arteries
- Youthful Appearance

Scientists have discovered that certain nutrients can help you look younger and feel healthier. An important nutrient in the quest for anti-aging and anti-disease treatment is Grape Seed Extract.

Grape Seed Extract is known as a powerful antioxidant. Antioxidant protection helps protect the body from premature aging, disease and decay. Antioxidants are needed to neutralize free radicals. Free radicals play a major role in the development of degenerative diseases,

cardiovascular diseases, strokes and aging. The antioxidant capacity of Grape Seed Extract comes from proanthocyanidins (oligomeric proanthocyanidins) (OPCs). Scientific studies have shown that proanthocyanidins antioxidant power is 20 times stronger than Vitamin C and 50 times stronger than Vitamin E.

Healthy Looking Appearance & Better Health

Extensive research suggests that Grape Seed Extract (proanthocyanidins) may be beneficial in many areas of health due to its antioxidant effect. Proanthocyanidins ability to bond with collagen; promotes youthful skin, cell health, elasticity and flexibility. Other studies show that proanthocyanidins help protect the body from sun damage and help improve vision. Grape Seed Extract has been shown to improve flexibility in joints, arteries and body tissues such as the heart. Research studies have shown that Grape Seed Extract helps improve blood circulation by strengthening capillaries, arteries and veins.

Research Studies

Proanthocyanidins have been used therapeutically for decades in Europe to improve circulation, reduce edema and varicose veins. In a double blind study of 50 patients with chronic venous insufficiency, Grape Seed Extract alleviated symptoms of this circulatory disorder. A study of 25 patients with high blood pressure or diabetes who were given 150 milligrams of proanthocyanidins per day showed a significant increase in capillary strength as compared to the placebo group. A double blind, placebo controlled study involving 92 patients with peripheral venous insufficiency showed that proanthocyanidins substantially reduced pain, night time cramps and subjective edema.

Grape Seed Extract Is More Effective Than Pine Bark Extract

Grape seed extract contains 92 to 95% OPC's -- a greater amount than pine bark extract, which contains only 80 to 85%.

Given that OPC's seem to have so many possible benefits, where can you find the most effective and economical form of supplementation? Of the products now commercially available, grape seed extract and pine bark extract are the sources with the highest OPC content.

Pine Bark extract is sold in the United States under the registered trademark name of Pycnogenol® (held by Horphag Research Ltd. Of Switzerland). It contains at least eighty five per cent OPC's. A higher percentage of PCO'S can be found in grape seed extract, which contains ninety two to ninety five percent PCO'S.

Studies conducted by Jacques Masquelier (who was the discoverer of OPCs) show that grape seed extract has a greater antioxidant effect than pine bark extract. This is probably due to one particularly potent kind of PCO (proanthocyanidin B2-3'-O-gallate) found in grape seed extract that is completely absent from pine bark extract.

Further studies show that grape seed extract's superior antioxidant qualities protect the cardiovascular system better than pine bark extract. One such study conducted by Jonadet et al., compares the cardio-protective activities of the extracts of grape seeds, bilberries and pine bark. Introducing a free radical compound into the circulatory system of rats, and then measuring the cellular damage caused to arterial walls conducted the study. The researchers observed four groups of rats; a control group and three groups, each of which was administered one of the extracts.

The results showed that of the three extracts studied, grape seed extract provided the arterial walls with the best defense from free radical damage. Specifically, grape seed extract's protection was 22% greater than pine bark extract and 15% greater than bilberry extract.

Grape Seed Extract Is Better Value

Pine bark has many natural contaminants (sap secretions, bird droppings and other air borne pollutants) and requires considerable effort and expense to clean, inexpensive byproduct of the wine industry. Additionally grape seeds yield more OPC's per kilogram than does pine bark. These factors have combined to make the cost of pine bark extract more than double that of grape seed extract.

On the basis of PCO content, cost and effectiveness, grape seed extract clearly performs better than Pycnogenol®. This has led it to outsell pine bark extract 50-to-1 in Europe.

HOLOFIBER™

HOLOFIBER™ is one example of a new class of materials engineered to help the human body optimize its performance. This family of new and exciting products, called META MATERIALS™, includes yarns, fabrics, materials and treatments.

HOLOFIBER uses light in an entirely different way. Light is everywhere and plays a vital role in all life processes. The colors of light can be defined by wavelength, which is a measure of how long a specific light wave is. The familiar Visible Light Spectrum we often see as a rainbow lies roughly between 3900A* and 7100A*. Beyond this Visible Light is an entire other spectrum that is invisible to the unaided eye. This spectrum is called infrared or IR spectrum. The human body constantly gives off this IR light (it actually glows with IR light). HOLOFIBER materials are able to use these longer IR light waves given off by the body to help the human system to help it's self.

Humans are warm-blooded mammals. In part, this means we regulate the temperature of our blood and bodies. There are several mechanisms that come into play to allow us to be able to do this. Our blood carries nutrients and oxygen to our cells and carries wastes away. The main action of supply and cleanup becomes important and vital at the smallest level, the level of cells. The real and final connection of our circulatory system to individual cells is made by the finest of blood vessels, the capillaries. To help conserve body energy, the capillaries constrict near and at the surface of the skin. This tends to reduce the energy and heat of the blood that might be lost at the body's surface.

When HOLOFIBER material is worn, a few simple but important properties of HOLOFIBER come into play to operate WITH the human system to bring about balance and homeostasis*. This can promote continued health, strength, flexibility, comfort and a more rapid recovery from injury or exertion.

*The "A" stands for Angstrom Units, which are used to define the wavelength of light.

*Homeostasis: The ability or tendency of an organism or cell to maintain internal equilibrium by adjusting its physiological processes.

How HOLOFIBER™ works:

HOLOFIBER has a unique and interesting property in that it is capable of interacting with IR light. This emission of IR from the human body is absorbed and excites electron energy levels in the atoms and molecules of the proprietary component of HOLOFIBER. As the electrons return to their previous energy levels they emit or give off energy in the IR range but are a different wavelength, a longer wavelength.

This longer IR is able to penetrate the tissue and supply energy that can be used by the skin and tissues. This tends to help the capillary system to sustain homeostasis more easily and more effectively. This is because energy is now available in a form not usually available to the cellular system. This energy allows the capillaries to relax and be less constricted, resulting in a greater blood flow where required.

The long or Far Red Light unique to HOLOFIBER provides an optical energy source to some of the chemical messengers in the body that are responsible, in part, for establishing and maintaining homeostasis. In normal conditions this type is not available to the body.

HOLOFIBER, a Meta Material, is only the first of a class of fabrics and materials designed to aid the human body to reach optimum health and balance.

HOLOFIBER and Meta Materials™ are the intellectual property of HOLOFIBER ENTERPRISES.

MSM

(Methylsulfonylmethane)

**Tired of Being Sick...Tired of Being Tired?
Want to Feel Good Again? Read On!**

Most people have Heard of DMSO, and of how hundreds of thousands of ill people have been helped by using DMSO.

A few years ago, the world's leading DMSO researcher, the eminent Dr. Stanley Jacob of the Oregon Health Sciences University, discovered and was able to isolate an extremely important and beneficial part of DMSO. It is referred to as *Methyl Sulfonyl Methane*, and is simply known as MSM.

It was determined that it was the MSM part of DMSO that brings so many health benefits to those that suffer from various ailments and diseases. Furthermore, MSM provides the health-giving benefits without any nuisance side effects.

It is estimated that the human body uses up about 1/8 teaspoon of MSM each day! It needs to be replaced every day! Good health practices involve replacing essential substances that our bodies naturally use up or lose through illness or abuse.

MSM is a natural form of organic sulfur found in all living organisms, and is present in low concentrations in our body fluids and tissues. It is found in a variety of fresh foods, including fruit, vegetables, meat, eggs, fish and milk. However, unless your diet is composed primarily of raw foods, it is unlikely that you are receiving enough MSM for proper health management.

When we process our foods with heat or drying, we lose most of the MSM that is vital to our well-being. MSM helps our bodies utilize the vitamins that we take. By providing the means to derive the maximum benefit from them.

MSM is part of the Amino Acid Chain. Without the presence of the proper amount of MSM in our body, the Amino Acids will continue to build the glands, but there is a failure to produce the correct enzymes, making us prone to unnecessary illness.

MSM is the flexible bond between proteins. When a cell dies, a new cell takes its place. But without the needed amount of MSM, it attaches but becomes rigid. When tissues lose their flexibility, problems develop with the lungs and other parts of the body. MSM detoxifies the body and increases blood circulation.

Because there are few nerves in the bones, our pain comes from the soft tissues. Aspirin shuts off the nerves, but the muscles are still damaged. MSM relieves the inflammation, permits the muscles to heal and prevents them from becoming sore. If you play baseball and you normally get sore muscles the next day, take 1/2 teaspoon of MSM before playing the game and you will notice a difference. If taken after the game, the soreness will go away faster.

MSM is a free radical scavenger, so allergies to foods and pollens will go away. MSM also prevents overreaction to other medicines, so it does not work against any other medications. MSM controls acidity in the stomach, so it can help ulcers. MSM coats the intestinal tract so parasites lose the ability to hang on. They are then flushed away. This could prevent colon problems.

MSM is no more toxic than water. It can never hurt anyone. Any excess MSM in your system will stay in the blood stream for 12 hours and remove toxins and clean the interior walls of arteries.

MSM has one side effect. Your fingernails and hair will grow faster and become stronger. This is because there is more MSM in hair and nail cells than in any other part of the body. *We need a little extra MSM every day for good health.*

DMSO₂ (MSM) After 20 Years

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MSM, an odorless essentially tasteless, white crystalline chemical demonstrates usefulness as a dietary supplement in man and lower animals. Our research suggests that a minimum concentration in the body may be critical to both normal function and structure.

Limited studies suggest that the systemic concentration of MSM drops in mammals with increasing age. This may be due to dietary habits where one ingests foods with lower MSM potential with maturity or possibly there is a change in the renal threshold. Healthy juvenile rabbits maintain a level at or above 1-ppm body weight, with milk being the dominant food source. Cow's milk normally contains between 2 and 6 ppm MSM, dependent on source and freshness. In an adult man, the circulating concentration varies but may average about 0.2-0.25 ppm. We have no estimate of total body concentration as yet, but suspect that MSM is banked in some of the organs, other than the adrenals. Based on radiolabel (³⁵S) studies, the residence time of a single challenge in mammals may be several weeks with gradual dumping via the renal system. Daily output of urine contains several milligrams of MSM. This possibly is not the dominant excretory route.

The following abnormal conditions seen in the clinic have responded to oral MSM generally administered at dosage levels of 250 to 270mg./day.

- (1) Response to allergy. Oral MSM moderates diverse allergic responses as to pollen and foods. Anti-allergy medication and desensitization methods may be sharply reduced.
- (2) Control of hyperacidity. Subjects seen to be chronic users of various antacids and histamine H₂ receptor antagonists prefer MSM by reason of relief obtained coupled with freedom from serious, untold effects.
- (3) Hypersensitivity to drugs. Subjects demonstrating drug hypersensitivity as to aspirin, several non-steroid anti-arthritic agents (naprosyn, indocin, motrin), and oral antibiotics, were drug tolerant when MSM was given within an hour before or concurrent with the sensitizing drug.
- (4) Control of constipation. Particularly in the older population seen in our clinic, chronic constipation can be a medical problem of concern. To date, over 50 subjects presenting chronic constipation have gained prompt and continuing relief by supplementing the diet with 100 to 150mg. of MSM per day.
- (5) We have seen some individuals with severely restricted lung function. Of these, only a few cooperated in vital function assessments. All cooperated in endurance measurements, however. Limited objective and strong subjective evidence suggests that MSM is a useful dietary supplement to reduce lung dysfunction.

- (6) Antiphrostatic action. In vitro and in vivo tests suggest MSM has an activity against a variety of medically important parasitic problems. Thus far, work has concentrated on parasitic problems of the intestinal and urogenital tracts. MSM, for example, is active against Giardia, Trichomonads, and round worms. MSM may affect such infections by competing for binding or receptor sites at the mucous membrane surface, presenting a blocking interface between host and parasite. We are at present evaluating the action of MSM with a variety of abnormal or medical problems to determine whether any are responsive to a diet supplemented by MSM.

We are intrigued by the fact that MSM is a consistent factor in all-normal diets of vertebrates and somewhat mystified by the seeming need of the body of adults for a concentration level above that available from a diet presumed as "normal." We hope soon to have data defining any specific interacting role that MSM may have with the water-soluble vitamins, particularly vitamin "C", which like MSM is reportedly banked in the adrenals.

It is not possible to directly compare DMSO and its' derivative MSM, though of the same chemical family. Each is unique unto itself. MSM is a dietary factor derivable from most natural foods. It is conveniently taken alone, or in foods. Taken by mouth, there is no after-breath. DMSO has certain unpleasant attributes not possessed by MSM.

While MSM is a dietary factor, DMSO is not. DMSO readily penetrates the dermas and less complicated membrane systems while MSM does not. Each contributes to the well being of mankind, but in differing ways. Both have important implications.

MSM LOTIONS

Skin Moisturizer with MSM

There are seven different fragrances of lotions distributed by RICH DISTRIBUTING; "Fruit Medley, Lavender, Peach, Peppermint, Plain Pearl, Vanilla, and Watermelon". Ingredients (except for the purified water, all of these ingredients are from plant sources): Purified Water, MSM, Glycerin, Oleic & Stearic acid, Propylene Glycol Monostearate, Aloe Vera Concentrate, Allantoin, and Paraben (less than 1/3 of 1%).

We also have an Unscented lotion containing Purified Water, MSM, Aloe Vera Gel, Sunflower Oil, Glyceryl Stearate, PEG-100 Stearate, Stearic Acid, Cetyl Esters, Octyl Palmitate, Vitamin E, Provitamin B5, Extracts of Chamomile and Calendula, Jojoba Oil, Tea Tree Oil, Vitamin A, Dimethicone, Cellulose Gum, Paraben and Grape Fruit Seed Extract.

Using Rich's MSM Lotion helps concentrate MSM in places where the body needs special attention.

When taking MSM orally the body distributes MSM where it needs it the most, applying our MSM lotion allows you to concentrate MSM in the areas where you want the most benefits.

Once you have tried our lotions we believe that you will agree that they are the best lotions available for the delivery of MSM.

Pregnenolone

Pregnenolone is sometimes referred to as the “mother hormone” because it is the precursor for dehydroepiandrosterone (DHEA) and all of the steroid and sex hormones.

This substance may treat symptoms commonly associated with aging including improved brain function, enhancing mood, memory, and thinking. Also may help with cholesterol levels.

Dosage range: 5-30mg per day depending on age and gender.

DHEA - Miracle or Medicine? (Dehydroepiandrosterone)

- Much of the following information was published in: A Practical Guide, written by Ray Sahelian, MD. and Preventing and Reversing Osteoporosis, by Alan R. Gaby, MD. We recommend that anyone considering DHEA supplementation contact his or her physician.

Used the right way, DHEA may combat a variety of ailments, from cancer to arthritis.

“If a little is good, a lot is better.” Well, when it comes to the hormone DHEA, this old saying is just wrong. If used in large quantities it could be down right dangerous.

Even so, free-form DHEA is the latest “miracle” drug enticing consumers. It’s touted as being an integral part of a sound disease-prevention program, and has indeed been shown effective in combating a variety of ailments such as arthritis, lupus, asthma, and HIV, in several studies.

Make no mistake DHEA is a powerful substance. When taken properly, it can bring dramatic health benefits to many people. But it can also have potentially negative effects in high doses. That hasn’t stopped some unscrupulous companies from marketing DHEA as the greatest fat burner available. This Sales tactic encourages the abuse of the product.

So before you buy this product you should try to educate yourself on this product. Learn and understand the positive and negative effects the product can create and how the product creates those benefits.

Facts About DHEA

DHEA is a hormone secreted by the adrenal cortex. It circulates in the bloodstream in quantities thousands of times greater than any other hormone in the body. Because it is structurally similar to other hormones, DHEA acts as a raw material from which the body can produce more of the other hormones, such as testosterone, estrogen and cortisone, as needed.

However, DHEA has many of its own unique functions. DHEA levels peak around age 21 and slowly decline over the years. Production of DHEA can decrease 80 to 90 percent by the age of 75. Men in their prime produce about 31 milligrams daily: women, about 19 milligrams.

If the levels of DHEA in a healthy person are compared to a person of the same age and sex who has a serious health problem, the healthy person will have much more DHEA circulating. In fact, individuals with cancer and also chronic fatigue report that their blood tests revealed that they had almost no DHEA.

Anti-Aging Dosage

As a part of an overall anti-aging and disease prevention program, the goal is to supplement the body’s own production, bringing it to the level it was producing in your prime.

Begin with daily doses no higher than five to 25 milligrams, and remember that ideal supplemental DHEA dosage can vary dramatically from person to person. Age, sex and state of health are strong factors, but our ability to absorb and assimilate the hormone is also important. Normal intestinal absorption of a capsule is about 50 percent, but the amount decreases with age and with declining health.

Sublingual DHEA supplements are the best choice. About 90 percent of the hormone is assimilated within a few minutes. That's especially important for someone using DHEA to help with an acute problem such as arthritis pain, a lupus attack, an asthma attack, hay fever or sinus problems. DHEA is so powerful that people report relief from these situations in a matter of minutes with just two drops of a liquid (about 8 to 10 milligrams). You can also open a capsule and pour the contents under the tongue for faster assimilation.

Therapeutic Doses

Therapeutic doses for individuals with serious problems such as cancer, lupus, diabetes, HIV and chronic fatigue usually begin around 100 milligrams daily. No long-term human studies have been done to show this is a safe level. Individuals with medical problems using higher amounts, however, have not reported evident side effects.

DHEA And Fat Loss

One thing is irrefutable: High doses of DHEA dramatically affect fat loss. However, anything that has a dramatic effect on the body is causing great stress. While it may be more satisfying to see results quickly, this is not the optimal way to lose fat. Gradual weight loss is almost always more permanent and creates less stress on the body.

Though this is not recommended, the following will give you an idea of the tremendous power of DHEA: During one study, 1,600 milligrams of DHEA divided into four doses throughout the day were given to five normal-weight males. After 28 days, with diet and physical activity remaining normal, four of the five exhibited a mean body fat decrease of 31 percent with no overall weight change this suggested that muscle mass increased.

Lower and safer levels of DHEA also produce fat loss. While the results are less dramatic, they're much healthier for the body. One 50-year-old man reported losing 30 pounds gradually, which he attributed to the 50 milligrams of DHEA he had been taking for about eight years.

DHEA: Not For Everyone

DHEA is not recommended for men who have an existing prostate problem. High levels of testosterone are associated with the overproduction of the prostate cells, which can result in prostate enlargement. Supplementation also isn't for men who are under age 40 who do not have health problems.

DHEA - Questions

WHO SHOULD CONSIDER DHEA? Anyone over the age of 40 (after consultation with their health care physician). The doctors of the Natural Physician Center can test DHEA levels using a simple saliva test. Call 503-526-8600 for more information.

WHAT ARE THE RECOMMENDED DOSES? Any one taking DHEA should start with 5mg. per day. This level should be maintained for seven days. If the desired effect is not achieved, increase dosage to 10mg. per day and remain at that level for two weeks. Women should not use more than 15 to 20mg, per day and men should not use more than 25mg. per day, unless otherwise advised by a physician.

WHO SHOULD NOT CONSIDER DHEA? Anyone with a history of hormone-related tumors, particularly, prostate or breast cancer. Also, young people under the age of 40 should consult a physician before supplementing with DHEA. DHEA should not be sold to youth or teens. (This supplement is not recommended as part of a bodybuilding protocol.)

WHAT ARE THE POSSIBLE BENEFITS OF DHEA? New evidence suggests that DHEA may be of value in preventing or treating many conditions. Those conditions for which evidence strongly

suggests a therapeutic benefit include: reducing symptoms of menopause, boosting sex drive, enhancing energy, mood and memory, improving the immune system, improving bone mass in osteoporosis, and reducing the severity of diabetes. Also, DHEA has been shown to lower the serum LDL-cholesterol associated with heart disease.

WHAT ARE THE POSSIBLE SIDE EFFECTS OF DHEA? There is little evidence of side effects in people using low levels of DHEA. The following side effects can accompany high doses of DHEA: acne and excessive oiliness, unwanted hair growth, deepening of voice, mood changes and irritability, insomnia, and fatigue.

Vitamin B12 with Folic Acid

Vitamin B12 is a water-soluble b vitamin. It serves as a cofactor in cellular enzymatic processes, and is particularly important in the metabolism of cells within the gastrointestinal tract, bone marrow. It aids folic acid in regulating the formation of red blood cells, and helps in the utilization of iron, and cellular longevity, also preventing nerve damage and maintains fertility. B12 has been shown to enhance sleep patterns, allowing for more restful and refreshing sleep.

Vitamin B12 participates in DNA synthesis and cellular. It is required for synthesis of myelin, and is important to maintain the function of nerve cells and is required for the metabolism of homocysteine. B12 is involved in the metabolism of protein, fat, and carbohydrates. Some deficiency symptoms may be megaloblastic anemia.

A vitamin B12 deficiency can be caused by malabsorption, which is most common in elderly people and in those with digestive disorders. Deficiency can cause abnormal gait, bone loss, chronic fatigue, constipation, depression, digestive disorders, dizziness, drowsiness, enlargement of the liver, eye disorders, hallucinations, headaches (including migraines), inflammation of the tongue, irritability, labored breathing, memory loss, moodiness, nervousness, neurological damage, palpitation, pernicious anemia, ringing in the ears, and spinal cord degeneration. And the body can store up to five years' worth of vitamin B12.

Drugs, which can cause depletion of vitamin B12: oral contraceptives, phenytoin, colchicines, antibiotics, biguanides (metformin), H2-receptor antagonists, proton pump inhibitors, and timed release potassium chloride medications. There are no known adverse nutrient/nutrient interactions between vitamin B12 and other nutrients.

The largest amounts of vitamin B12 are found in brewer's yeast, eggs, herring, kidney, liver, milk & dairy products, and seafood. B12 is not found in many vegetables, only from sea vegetables, such as dulse, kelp, kombu, and nori, soybeans & soy products. Also presents in the herbs alfalfa, bladder wrack, and hops.

Anti-gout medications, anticoagulant drugs, and potassium supplements may block the absorption of vitamin B12 from the digestive tract. Taking vitamin B12 in sublingual tablets, which are dissolved under the tongue rather than swallowed, can be a good option for those who have difficulty absorption of vitamin B12. People who lack intrinsic factor must use a sublingual form for absorption.

Dosage orally: RDI: 4 mcg per day; ODA 10-500 mcg per day.

FOLATE: Also know as folacin, folic acid, or pterolyglutamic acid (PGA), folate is considered a brain food, and is needed for energy production and the formation of red blood cells. It also

strengthens immunity by aiding in the proper formation and functioning of white blood cells. Because it functions as a coenzyme in DNA and RNA synthesis, it is important for healthy cell division and replication. It is involved in protein metabolism and has been used in the prevention and treatment of folic acid anemia.

Folate may be the most important nutrient in regulating homocysteine (this is an amino acid that is naturally formed in the body as the result of the breakdown of another amino acid, methionine) levels. In recent years, high levels of homocysteine have been found to be associated with an increased risk of atherosclerosis (hardening of the arteries due to the accumulation of fatty plaques). Normally, homocysteine is converted to other, non-harmful amino acids in the body. In order for this conversion to take place, as it should, the body needs an adequate supply of folate, as well as of vitamin B6 and B12. Homocysteine levels in red blood cells have been shown to have an inverse relationship to levels of these three important B vitamins – that is, the lower the levels of these vitamins, the higher the level of homocysteine.

Folate is very important in pregnancy. It helps to regulate embryonic and fetal nerve cell formation, which is vital for normal development. Studies have shown that a daily intake of 400 micrograms of folate in early pregnancy may prevent the vast majority of neural tube defects, such as spina bifida and anencephaly. Also help to prevent premature birth. To be effective, this regimen must begin before conception and continue for at least the first three months of pregnancy; if a woman waits until she knows she is pregnant, it may be too late, because critical events in fetal development occur during the first six weeks of pregnancy – before many women know that they have conceived. This is why many experts recommend that every woman of childbearing age take a folate supplement daily as a matter of course. Folate works best when combined with vitamin B12 and Vitamin C.

Some of the symptoms of a folate deficiency would be a sore red nose, apathy, anemia, heartburn, fatigue, diarrhea, constipation, depression, frequent infections, graying hair, growth impairment, insomnia, labored breathing, paranoia, weakness, and mental confusion. Folate deficiency may be caused by inadequate consumption of fresh fruits and vegetables; consumption of only cooked or microwaved vegetables (cooking destroys folate); and malabsorption problems

Dosage orally: RDI: 400 mcg per day; ODA: 400-1000 mcg per day.

VITAMIN C

When considering the supplementation of Vitamin C many people ask the same questions: “How much should I take?” & “How can I take it without the irritation to my stomach?” According to some researchers the amount you should take varies according to your body’s need at any particular time (i.e., during times of heavy stress, having colds, the flu or other illnesses). When taking MSM however, it is suggested that you take at least one half as much vitamin C as MSM (if you take 3000mg MSM you should take at least 1500mg of vitamin C).

Another consideration is “What type of Vitamin C should I take?” As there are different forms (i.e., powder, capsules) and types. It may be a good idea to take a buffered type of vitamin C, as some people experience stomach irritation with plain Ascorbic Acid. Vitamin C with Bioflavinoids should be easier on the system. It may also be a good idea to take minerals when taking Vitamin C as it uses up minerals in our bodies when being processed. Vitamin C Ascorbates contain trace minerals needed by the body to aid in the assimilation of Vitamin C.

A good water-soluble multi-mineral source may be best to take with Vitamin C. Just as Vitamin C is dependent on minerals, minerals are dependent on one another in our bodies in order to be processed properly and to be used properly by our bodies. Another question commonly asked is "Can I take too much vitamin C?" The answer is "yes". Your body may not be able to tolerate as much vitamin C as the next person.

Vitamin C is important to collagen production, which is the cement that gives our tissues form and substance. Vitamin C deficiencies can result in a disease called "Scurvy". This is a breakdown in the cells and structure of our body tissues causing severe bleeding of the gums, easy bruising and a tendency toward bone fractures.

Vitamin C Ascorbate

Poly-C (vitamin c ascorbate) is a pH buffered form of vitamin c and therefore provides it in an acid neutralized form and reflects the natural equilibrium at which vitamin c occurs in the blood. One of the main problems with vitamin c in general has always been that vitamin C is so unstable, and water-soluble, meaning we excrete most of it before our cells can drink it up. Enter: the Ascorbates. By chemically combining vitamin C with a variety of minerals, such as calcium, magnesium and potassium, scientists have altered this critical nutrient to make it fat soluble (and therefore far more available to the cells of the body). This lengthens the time that vitamin C spends in the body, dramatically increasing its absorption. The result is the delivery of far more vitamin C into the cells! The added bonus: increased absorption of the minerals with which the vitamin C has been combined! It's a win-win situation!

Ascorbic acid taken in large quantities can be toxic for some people. Side effects include heart-burn, flatulence, nausea, diarrhea, and in a few people it triggers the formation of high amounts of an oxalate excretion, which can lead to the formation of oxalate kidney stones (Jonathan V. Wright, M.D.). When Vitamin C is taken in a non-acidic form, as mineral Ascorbates, this side effect is avoided.

Aspartates are a better way of supplementing essential minerals...Mineral Aspartates are formed by binding each mineral to Aspartic Acid, the amino acid that functions as a transport mechanism, delivering the individual mineral to the proper body site for its specific functions. That's why Aspartates provide the most effective digestion, absorption and utilization by the body without irritation or toxic side effects.

Being water soluble, it is easily washed from the body and needs to be constantly replaced. Without vitamin C, the body cannot make collagen, the substance that holds the body's cells together. It works best with attending bio-flavonoids

For one, flavonoids--the catchall term for some 4,000 antioxidant compounds responsible for the color and numerous health benefits of fruits, vegetables, and herbs--enhance the body's absorption of vitamin C.

For optimal absorption, try to combine chromium with a food rich in vitamin C or with a vitamin C supplement. Chromium is an essential trace mineral that the body needs to grow properly and remain healthy. It is necessary, among other things, for the breakdown of protein, fat, and carbohydrates.

Researchers have found that a molecule called "glucose tolerance factor" (GTF), which contains chromium, is critical for increasing the sensitivity of these cells to insulin.

Vitamin E (one of the Best Antioxidants Known!)

When we talk about Vitamin E, people generally visualize the common practice of breaking open the soft yellow pillows of Vitamin E and rub them onto scar tissue to reduce the appearance of the area of ravaged skin. Correct, this **is** Vitamin E's most common role; nourishing skin, (*the largest organ of the human body*). The tone and texture of skin are maintained by the integrity of the elastic fiber in the dermis and in the collagen in connective tissues. Wrinkles result from a loss of subcutaneous fat, (*fragmenting of the elastic fibers and degeneration of connective tissue, called collagen fibers*). Vitamin E is believed to help maintain the integrity of health of connective tissue. It also is believed to counteract decreased function of the sebaceous gland (*fatty material*) as well as to ameliorate excessive skin pigmentation (*unsightly liver spots*). In addition to the skin, vitamin E is beneficial in other areas. Vitamin E is important to our health.

Consuming adequate amounts of Vitamin E is more important today than ever before. We are exposed to so many pollutants that interfere with healthy oxygen metabolism that without adequate amounts of Vitamin E in the blood, our red blood cells break open and are destroyed. This condition is referred to as hemolytic anemia and is common in newborn babies, especially those born prematurely.

Vitamin E helps develop new veins between the existing ones. This helps the blood get from congested veins or varicose veins to more healthy ones.

Estrogen related hormones in birth control pills neutralize Vitamin E and reduces its level in the blood stream. Vitamin E naturally dissolves fibrin, (*the protein that organizes the formation of blood clots*); women on "the pill" are known to be more prone to develop clots because Vitamin E levels are low. Women on "the pill" should supplement with Vitamin E to replenish what the pill removes.

Most Vitamin E supplements are gelatin capsules containing oil. Some of the Vitamin E is used up as an antioxidant protecting the oil. This is great for the oil, but it leaves less available for you. The natural d-alpha Tocopheryl succinate form of Vitamin E used is stable to oxidation, which ensures full potency. In addition, it is water-soluble so it is more readily absorbed into the body. According to noted Vitamin E and tocotrienol researcher Dr. Andreas Papas, Ph.D., we really cannot get enough vitamin E from our diets; it therefore must be supplied in supplemental form. Vitamin E, incidentally, is found in plant oils, such as seeds, grains and nuts, with almonds boasting a high content in comparison to others. It is also found in green vegetables, and in vegetable oils, but commercial processing effectively destroys much of the vitamin E.

Vitamin E helps maintain healthy circulation in the coronary arteries and peripheral blood vessels. Supplemental doses of vitamin E protect the heart and blood vessels in several key manners. As an antioxidant, it prevents the oxidation of low-density lipoprotein (*the bad LDL cholesterol*); this oxidation, incidentally, promotes the development of heart disease. Vitamin E enhances the activity of nitric oxide, (*a compound that inhibits the growth of smooth muscle cells, which can interfere with blood flow*). Additionally, vitamin E inhibits the enzyme known as protein kinase C, which makes blood platelet cells more prone to clotting. Vitamin E has also been investigated for its role of stroke risk reduction. Researchers explained; people who took vitamin E in supplements were 47 percent less likely to have an ischemic stroke. Vitamin E has mounting evidence of improving several quality of life issues for the elderly. For example, patients with age-related macular degeneration (*AMD*) had significantly lower blood levels of vitamin E and zinc. In conclusion, vitamin E may increase resistance to AMD.

The preceding information is for educational purposes only. It is not medical advice and is not intended to replace the advice or attention of health care professionals. Consult your physician before beginning or making changes in your diet, supplements or exercise program, for diagnosis and treatment of illness and injuries, and for advice regarding medications.