



The ABC's of OCULAR NUTRITION

"...promote proper vision and whole body health with the right ingredients at the right levels."

The entire family of **Fortifeye™** products has been created by doctors who understand that quality counts. Each nutrient was chosen based on the highest manufacturing standards and uptake ability by the body

Vitamin A:

A fat-soluble, antioxidant vitamin important for vision and bone growth, belonging to the family of chemical compounds known as retinoids. Night blindness – the inability to see well in dim light – is associated with a deficiency of vitamin A. This vitamin is needed for the formation of rhodopsin, a retinal pigment. Vitamin A is also needed for the development of a healthy cornea. Third world countries have a high percentage of vitamin A deficiencies and need supplementation for the pregnant mothers and children. However most developed countries where the population is consuming animal proteins, fruits and vegetables are not deficient in vitamin A and do not need to supplement. Vitamin A can build up in toxic levels in the body and cause liver problems, birth defects, osteoporosis, neurological problems and many other potential problems. Too much vitamin A may be linked to increased risk of macular degeneration. Since vitamin A deficiency is rare in the populations that are taking Fortifeye vitamins and the potential for vitamin A toxicity exists, Fortifeye has decided to take all vitamin A and beta carotene out of their supplements.

Vitamin B complex:

Eight water-soluble vitamins that play important roles in cell metabolism.

Vitamin C:

(L-ascorbic acid) The most widely taken dietary supplement, Vitamin C is an essential water soluble nutrient required in small amounts to allow a range of essential metabolic reactions. Vitamin C is required for the synthesis of collagen and to maintain healthy skin, tendons, ligaments, blood vessels, cartilage and teeth. Vitamin C is an antioxidant that protects the body against oxidative stress, and is needed as a coenzyme in many reactions. Recent studies suggest that higher vitamin C intake may be associated with reduction in heart disease, strokes, cancers, cataracts and rheumatoid arthritis and excessive amounts of vitamin C may be associated with increase in oxalates that may increase risk of kidney stones. New research indicates that supplementing with vitamin C reduces C-reactive protein (CRP), an inflammatory marker linked with an increased risk of cardiovascular disease, stroke, peripheral artery disease, diabetes and possibly macular degeneration. It may lower CRP as much as statin drugs without the potential side effects. Vitamin C was one of the nutrients in the AREDS study that was beneficial for macular degeneration. High dosages of vitamin C may be beneficial at lowering intraocular pressure in patients with glaucoma.

Vitamin D:

Is a group of fat-soluble pro hormones in two main forms; D2 (meritocracies) and D3 (collectable). Vitamin D is naturally produced by the human body when exposed to sunlight. Vitamin D regulates calcium and phosphorus levels in the blood by promoting their absorption from food in the intestines, and by promoting re-absorption of calcium in the kidneys. It also promotes bone formation and internalization. Vitamin D affects the immune system by promoting interspersation, phagocytes, and anti-tumor activity. After Vitamin D is produced in the skin from sun exposure or consumed in food it is converted in the liver and kidneys to the active form called clairol and then is released into circulation to specific organs. Vitamin D deficiencies are now being linked to several diseases including hypertension, diabetes, tuberculosis, cancer, periodontal disease, multiple sclerosis, collagen vascular diseases, seasonal affective disorder, depression, Parkinson's and macular degeneration. New science (NHANES III) indicates that patients with higher serum levels of vitamin D may reduce the risk of macular degeneration. Vitamin D has anti inflammatory properties associated with it that may prove beneficial to many health and eye related diseases including macular degeneration. More studies on the use of vitamin D3 and eye disease will be necessary to prove these beneficial aspects. Twenty minutes of sun exposure in fair skinned people (3 to 6 times longer in dark skinned) between 12 and 2 p.m. will produce approximately 10,000 IU's of vitamin D3. Physicians are now recommending more sun exposure or additional Vitamin D thru foods or vitamins for the high risk populations: elderly, darkly pigmented people, patients on medications that may block the absorption of fat soluble vitamins and people that are not in the sun very often. It is a good idea to have blood calcidiol (25-hydroxy-vitamin D) levels measured especially if you are in a high risk group. This is a current classification level that can give you some guide lines:

- 0-14.9 ng/mL = Severely deficient
- 15.0-31.9 ng/mL = Mildly deficient
- 32.0-100.0 ng/mL = Optimal
- 100.0 ng/mL = Toxicity possible

Vitamin E:

A fat-soluble vitamin in eight forms that is an important antioxidant. Naturally occurring vitamin E exists in eight chemical forms (alpha-, beta-, gamma-, and delta-tocopherol and alpha-, beta-, gamma-, and delta-tocotrienol). The natural forms are usually labeled with the letter "d" (for example, d-gamma-

tocopherol), whereas synthetic forms are labeled "dl" (for example, dl-alpha-tocopherol). Of the eight forms, alpha-tocopherol is traditionally recognized as the most active form of vitamin E but new studies suggest that gamma tocopherol exhibits the anti-inflammatory effects. Vitamin E may help prevent or delay coronary heart disease by limiting the oxidation of LDL-cholesterol. Vitamin E may help prevent the formation of blood clots which could lead to a heart attack. It is one of the five nutrients in the AREDS study used to slow down the progression of macular degeneration. Some studies have linked vitamin E as having protective effects on the human lens and macula. New studies indicate that tocotrienols may be effective at inhibiting angiogenesis and having numerous other health benefits. This may prove in the future to be beneficial in diabetic retinopathy and wet macular degeneration. Vitamin E may also help decrease C-Reactive protein which is a risk factor for cardiovascular disease, stroke, peripheral artery disease, diabetes and macular degeneration.

Acai Fruit Extract:

Acai is a fruit that grows on a particular palm tree in the Amazon rainforest. It is classified as one of the "super fruits" due to its very high ORAC value. Acai has a very high concentration of anthocyanins, antioxidants, fiber, omega essential fatty acids, plant sterols, vitamins and minerals. This nutrient dense fruit has been associated with tremendous health benefits. Fresh acai berries have an ORAC value of about 16,700 per 100 grams, while freeze dried varieties of acai berry can have ORAC as high as 100,000 per 100 grams.

Acetyl L Carnitine (ALCAR):

Acetyl-L-carnitine is the acetylated ester of the amino acid L-carnitine. This form much more readily crosses the blood brain barrier than the L-carnitine form and aids in the conversion of fat to energy. ALCAR has been shown in clinical studies to support and improve mitochondrial functioning especially when combined with alpha lipoic acid. Some studies suggest that ALCAR may improve mental clarity, cognition, memory and energy. ALCAR may prove useful in Parkinson's, Alzheimer's, depression, diabetic neuropathy and blood sugar control, heart disease, lung disease and macular degeneration. Early studies may prove the combination of ALCAR, COQ-10 and omega three essential fatty acids may have protective effects on macular degeneration.

Alpha-Lipoic acid:

An antioxidant postulated to be effective in preventing vitamin C and vitamin E deficiency. It is able to scavenge reactive oxygen species and reduce other metabolites, such as glutathione, maintaining a healthy cellular redox state. Lipoic acid has been shown in cell culture experiments to increase cellular uptake of glucose, suggesting its use in diabetes. Recent studies now suggest that alpha-lipoic acid combined with acetyl-L-carnitine may improve memory and support mitochondrial health. These new studies hypothesize that alpha lipoic acid could benefit dementia and Parkinson's. Some studies indicate it may be useful in glaucoma patients.

Astaxanthin:

Is a super carotenoid classified as a xanthophyll. Astaxanthins unique chemical structure allows it to protect cell membranes against free radical attack. Astaxanthin is 550 times more powerful than vitamin E and 40 times more powerful than beta carotene against singlet oxygen radicals. Randomized double blind placebo controlled studies show astaxanthin to be beneficial for many aspects of health. Astaxanthin has been associated with improvements in visual health, physical endurance, stomach health, skin health and also acts as a powerful anti-inflammatory. Astaxanthin crosses the blood brain barrier and blood retinal barrier and may improve circulation to both the brain and the eyes.

Biotin (B7):

Used in cell growth, the production of fatty acids, metabolism of fats, and amino acids. It plays a role in the Krebs cycle, the process in which energy is released from food. Biotin not only assists in various metabolic chemical conversions, but also helps with the transfer of carbon dioxide. Biotin is also helpful in maintaining a steady blood sugar level.

Bilberry:

Bilberry (European blueberry) is a deep blue fruit with high levels of anthocyanin pigments that have been linked to multiple health benefits. In several studies, bilberry was shown to improve visual acuity at night as well as shortening the time to adapt to dark conditions and recover from glare – important for light-sensitive individuals during night time driving. New science suggests bilberry, like blueberries, may prove to be a potent inhibitor of VEGF and may be helpful in diabetic retinopathy, macular degeneration, heart disease and cancer. Bilberry has an ORAC value of approximately 9,000 per 100 grams.

Blueberry/Kale/Spinach:

Research has shown increasing intake of antioxidants such as dark green leafy vegetables and dark berries may reduce the risk of macular degeneration and cataracts. Kale and spinach are very high in lutein, a carotenoid that increases macular pigment density in the retina that may have some protection against macular degeneration. Lutein also acts as an internal sunscreen to the retina by absorbing the harmful HIV (blue light) rays from the sun. Lutein may be beneficial at slowing down cataract formation. Blueberries have many health benefits. Studies are proving that blueberries decrease risk of cancers, reduce LDL cholesterol, guard against neurological diseases, relieve arthritis, strengthen immune system, promote urinary tract health and optimize ocular health. New research using blueberries has revealed inhibition of VEGF which may help in the protection of certain cancers, proliferative diabetic retinopathy and the wet stage of macular degeneration. The ORAC value of blueberry is about 6,552 per 100 grams, ORAC of kale is about 1,770 and the ORAC value of spinach is about 1515.

Boron:

A naturally occurring element, boron has been shown to decrease excretion of calcium and activate estrogen and vitamin D. This may retard bone loss as you age and decrease the risk of osteoporosis.

Bromelain:

Found in abundance in pineapples, bromelain is not a single substance, but rather a collection of enzymes and other compounds. It is a mixture of protein-digesting enzymes called proteolytic enzymes or proteases. Bromelain is an anti-inflammatory agent. In addition to aiding in blood clot formation, it has also been proposed in the use of arthritis treatment. It aids in the absorption of quercetin (flavonoid). Super high dosages of bromelain may cause rapid heart beat.

Calcium:

A naturally occurring element, calcium is responsible for bone growth and maintenance. Calcium uptake by the body is known to decrease with age, weakening bones (osteoporosis), but calcium seems to slow that process.

Carotenoids:

Substances that enable the body to synthesize retinoids. Carotenoids are organic pigments that are naturally occurring in plants and certain animals. New studies are now proving that beta-carotene may block the absorption of lutein. Lutein is a beneficial carotenoid that may improve the health of the macula. Beta-carotene may also increase the risk of lung cancer in smokers. New science suggests beta-carotene may increase risk of aggressive prostate cancer. Due to all the negative science regarding supplemental beta-carotene, Fortifeye Vitamins decided to remove all beta-carotene from their formulas.

Chromium:

An elemental metal which is thought to even out blood sugar metabolism, potentially helpful for diabetic patients. It is also a powerful antioxidant in one form.

Cinnamon Bark Extract:

Cinnamon has been used for thousands of years as a spice and for medicinal purposes. Cinnamon has been used as an aid in the common cold, help digestive problems and often used as an antimicrobial. More recently cinnamon has been useful in helping to control glucose, cholesterol and triglycerides in type 2 diabetics. Cinnamon has an ORAC score of 267,536 per 100 grams making it one of the most powerful antioxidants in the world. The numerous health benefits related to diabetes combined with the high antioxidant power makes cinnamon bark extract very appealing for total body as well as ocular health.

Cocoa Extract:

Cocoa is the dried and fermented bean from the cacao tree where chocolate comes from. Cocoa is high in two specific flavanoids – epicatechins and polyphenols. The flavanoids from cocoa have been associated with many health benefits. Cocoa may improve circulation to the brain and heart and thus improve cardiovascular health and improve cognitive abilities. Cocoa may also be beneficial at lowering blood pressure and lowering LDL (bad cholesterol) and raising HDL (good cholesterol). The antioxidant power (ORAC Value) of cocoa is one of the highest of any food on the planet. The high amounts of antioxidant in cocoa may help to retard free radical damage in the body and slow down the age related degenerative diseases in the body and eyes. ORAC value of dry powdered cocoa is about 80,000 per 100 grams and dark chocolate has an ORAC value of approximately 13,000 per 100 grams.

Copper:

Naturally occurring, copper is used by the body along with zinc to maximize iron uptake. Copper is an essential nutrient to all humans. It is found primarily in the bloodstream, as a cofactor in various enzymes. Copper is one of five nutrients in the AREDS study used to help slow the progression of macular degeneration.

CoQ10 (Ubiquinone):

Coenzyme Q10 is an oil soluble vitamin-like antioxidant found in every cell in the body. The highest concentration is found in the mitochondria. The primary function is generating energy. CoQ10 levels decrease with age, certain medications and certain diseases. CoQ10 has been associated with health benefits in numerous diseases like: heart disease, diabetes, gum disease, Parkinson's, cancer, macular degeneration and glaucoma. CoQ10 deficiencies have been linked to certain medications like statins, beta blockers and tricyclic antidepressants. New studies indicate that CoQ10 combined with omega three fish oil and acetyl-L-carnitine may have protective effects for macular degeneration. Good dietary sources of CoQ10 are salmon, sardines, herring, tuna and mackerel. CoQ10 is best taken with a meal to aid in absorption.

Cyanocobalamin (B12)

B12 is the most chemically complex of all vitamins. It is involved in the metabolism of every cell in the body and is crucial in DNA and fatty acid synthesis. Elevated homocysteine can be linked to B12

deficiency along with pernicious anemia. New studies indicate that low B12 status may increase risk of cognitive impairment. B12 deficiency becomes more of a problem as we age and in true vegetarians. Since it is difficult for the elderly population to absorb B12, larger amounts of B12 are now being used in vitamin supplements to help decrease the chances of patients developing B12 deficiencies.

Docosahexaenoic acid (DHA):

An omega-3 essential fatty acid, DHA is most often found in fish oil. DHA is a major fatty acid in sperm and brain phospholipids, and especially in the retina. Dietary DHA can reduce the level of blood triglycerides in humans, which may reduce the risk of heart disease. Low levels of DHA cause reduction of brain serotonin levels and have been associated with ADHD, Alzheimer's disease, and depression, among other diseases, and there is mounting evidence that DHA supplementation may be effective in combating such diseases. May be beneficial for macular degeneration and dry eyes. The DHA used in Fortifeye vitamins comes from the highest quality ultra purified triglyceride based fish oils. This natural form of fish oil maximizes absorption, has no after taste and is toxin free. New science is now proving that omega three may decrease the shortening of the end cap of a chromosome known as a telomere. Telomere shortening is seen as an indicator of biological aging, so omega three fish oil should be incorporated into any healthy anti-aging diet.

Eicosapentaenoic acid (EPA):

An omega-3 essential fatty acid, found most notably in oily fish. EPA is a polyunsaturated fatty acid that acts as a precursor for prostaglandin-3, which inhibits platelet aggregation. EPA is thought to be effective in lowering inflammation. May be beneficial for macular degeneration and dry eyes. Recent studies have suggested that EPA may affect depression and suicidal behavior. EPA may prove to be beneficial for breast cancer, as well as aid in treatment of multiple myeloma. The EPA used in Fortifeye Vitamins comes from the highest quality (triple molecular distillation) triglyceride based fish oils. This natural form of fish oil maximizes absorption, has no after taste and is toxin free. New science is now proving that omega three may decrease the shortening of the end cap of a chromosome known as a telomere. Telomere shortening is seen as an indicator of biological aging, so omega three fish oil should be incorporated into any healthy anti-aging diet.

Folic Acid:

Folic acid or B9 is extremely important during periods of rapid cell division and growth. This B vitamin is needed to produce healthy red blood cells and prevent anemia. Folic acid is essential for healthy homocysteine levels and in the prevention of neural tube defects in infants. Folic acid when combined with B12 and B6 will bring homocysteine levels down. New studies also indicate the combination of B12, folic acid and B6 will decrease the development of macular degeneration. Folic acid is extremely important and you don't want to have a deficiency, however there is a fine line between too little and too much. Too much folic acid is associated with cognitive decline and increased risk of certain types of cancer. General consensus as of 2010 is not to take more than 1000mcgs from natural and synthetic sources. Fortifeye Vitamins has cut back the amount of folic acid in their products to make sure the public doesn't get too much from supplementing.

Gamma-linolenic acid (GLA):

An omega-6 essential fatty acid found primarily in vegetable oils such as evening primrose (oenothera biennis) oil, blackcurrant seed oil, or borage oil. From GLA, the body forms dihomo-gamma-linolenic acid (DGLA). This is one of the body's three sources of eicosanoids (along with AA and EPA.) DGLA is the precursor of the prostaglandin PGH1, which in turn forms PGE1 and the thromboxane TXA1. PGE1 has a role in regulation of immune system function. GLA is unique among the omega-6 polyunsaturated fatty acids (linoleic acid, GLA, and arachidonic acid) in its potential to suppress tumor growth and metastasis. GLA may also improve tear production and aid dry eyes. GLA by stimulating PGE1 acts as an anti-inflammatory.

Gogi Berry:

Gogi berry, or Lycium berry, has been used for thousands of years in traditional Chinese medicine. Gogi berry has been named the "anti-aging berry" because of its nutrient dense profile and extremely high antioxidant power. Gogi berry is considered one of the "super fruits" since it has one of the highest ORAC scores of any edible fruit. The ORAC value of 100 grams of goji is approximately 25,300. Gogi berry may be the richest source of zeaxanthin in the plant family. Studies reveal that intake of a modest daily amount of goji berries markedly increases fasting plasma zeaxanthin levels. This aids in improving macular pigment density which may prove to be beneficial for macular degeneration. Early studies indicate that goji berry may have some neuro protective qualities in protecting retinal ganglion cells in glaucoma. The goji berry may also aid in dark adaptation. The goji berry is a good source of essential and trace minerals, amino acids, vitamins, polysaccharides and essential fatty acids. The nutritional value of the goji berry is proving to be beneficial for ocular and overall health.

Grape seed extract:

Used extensively in Europe, grape seed extract is rich in polyphenols, compounds that have antioxidant properties some consider even greater than vitamin C and vitamin E. Beyond its antioxidant powers, it is thought to improve blood circulation and help strengthen blood vessels. It may reduce the risk of cardiovascular disease and cancer. Resveratrol is one of the polyphenols found in grape seeds that has enormous health benefits.

Green tea extract:

EGCG, a key antioxidant found in green tea, is thought to support retinal health and works particularly well when in presence of Vitamin E. According to researchers at the University of Kansas, EGCG is 100x more powerful as an antioxidant than Vitamin C and 25x more powerful than Vitamin E. EGCG may also inhibit the formation of new blood vessels (anti-VEGF); this may prove to be useful in supporting retinal health. Green tea has been linked to lower cancer risk, lower cholesterol, faster weight loss, neuro protection, improved cognitive abilities, healthier immune system, better diabetic control and may benefit arthritis. 100 grams of brewed green tea has an ORAC value of approximately 1253. There is some evidence that green tea may help slow down cataracts. New science is proving that green tea

may slow down the degeneration of the end cap of the chromosome called a telomere. This makes green tea an anti-aging nutrition.

Hesperidin:

A flavonoid glycoside that has been shown to reduce cholesterol and blood pressure experimentally. In some studies large doses of the glucoside hesperidin were shown to decrease bone density loss. Hesperidin has also been shown to have anti-inflammatory effects.

Iodine:

A chemical element that is required in trace amounts by most living organisms, iodine is necessary for proper production of thyroid hormone.

Lutein:

A carotenoid found naturally in dark green leafy vegetables (spinach and kale) and other natural sources, this potent antioxidant is sorely lacking in the typical American diet. Lutein and zeaxanthin are the only carotenoids found in the retina of the eye. Lutein supplementation has been shown in landmark clinical studies to increase macular pigment density which may promote macular health. Scientists believe lutein helps filter out dangerous 'blue' light, helping to maintain the photoreceptor and retinal health. Lutein is now believed to have a protective effect on the retina and may help to slow down age related macular degeneration. Lutein may have some protective effects against cataract formation. Lutein is more readily available when greens are gently cooked or juiced versus the raw state.

Lycopene:

A bright red carotenoid pigment, lycopene is a phytochemical found in tomatoes and other red fruits. Lycopene is the most common carotenoid in the human body and is one of the most potent carotenoid antioxidants. Studies indicate it may reduce the risk of cardiovascular disease, cancer, diabetes, osteoporosis, male infertility and even macular degeneration.

Magnesium:

The chemical element required in trace amounts by the body for the basic nucleic acid catalysis. Magnesium is necessary to maintain the health of almost every organ in the body especially the heart, muscles, kidneys, bones and teeth. Found most notably in spinach, pumpkin seeds and halibut. Magnesium has shown promise in treating symptoms of autism and ADHD, when combined with vitamin B6. There is an association between low magnesium intake and diabetes. Studies indicate that consumption of magnesium may lower C-reactive protein and other signs of chronic inflammation. Inflammation is one of the root causes of many eye diseases.

Manganese:

Elementally found in nature, manganese and in its various ionic states (II) function as cofactors for a number of enzymes.

Mangosteen Fruit Extract:

Mangosteen is grown in Southeast Asia and is considered one of the super fruits. Mangosteen is known as the "queen of tropical fruits" and is very high in polyphenols, xanthenes and tannins. Mangosteen is known for its health promoting properties and has a high ORAC score. Research indicates that xanthenes may support the immune system, maintain intestinal health, help stop free radical damage, and support cartilage, joint and respiratory health.

Molybdenum:

A transition metal important in plant nutrition, and is necessary in animal and human nutrition. It is found at the active site of certain enzymes, including xanthine oxidase, important within the eye.

N-Acetylcysteine:

A co-factor which aids glutathione to increase uptake and efficacy of free radicals as antioxidants. N-Acetylcysteine may be beneficial in certain types of cancer, COPD, bipolar disorders, schizophrenia, boosting the immune system, aiding in detoxification of the body, reducing duration of influenza and may help with chronic blepharitis and symptoms associated with dry eyes.

Niacin (B3):

A water-soluble vitamin which plays an essential role in energy metabolism in the living cell and DNA repair. It also plays a role in removing toxic and harmful chemicals from the body. Niacin, when taken in large doses, increases the level of high density lipoprotein (HDL) or good cholesterol in blood. New studies are using niacin as a vasodilator to improve circulation in patients that have experienced a vein occlusion in the eye.

Pantothenic Acid (B5):

A water-soluble vitamin required to sustain life and is critical in the metabolism and synthesis of carbohydrates, proteins, and fats.

Phosphorus:

An element (always found as a compound in nature) that is a component of DNA and RNA and essential for all living cells where it forms part of the structural framework of these molecules (ADP, ATP).

Pomegranate fruit extract:

Pomegranate known as the "royal fruit" is a rich source of antioxidants and polyphenols. Pomegranate has a moderate ORAC value of about 2,860 per 100 grams. Some of the health benefits claims of pomegranate are improved circulation to the heart, reduction of arterial plaque, reduction in blood pressure and LDL (bad cholesterol), protective effects for breast and prostate cancer, improvement in erectile dysfunction and may act as an anti-inflammatory. The antioxidant power, improvement in circulation and anti-inflammatory aspects of pomegranate may prove to be beneficial for good ocular health.

Pyridoxine (B6):

B6 is required for the synthesis of neurotransmitters and red blood cells. It is also necessary for healthy homocysteine levels. Supplementation with pyridoxine, folic acid and B12 reduces the concentration of homocysteine in the bloodstream. Elevated homocysteine is a risk factor for heart disease, stroke, macular degeneration and occlusive artery disease in the eye.

Quercetin dehydrate:

A flavinoid found in such food as citrus and apples, quercetin may have positive effects in combating or helping to prevent cancer, heart disease, cataracts, allergies, inflammations, and certain respiratory conditions. Patients should make their doctors aware if taking high dosages of quercetin prior to antibiotic therapy.

Resveratrol:

Found in the skin of red grapes, resveratrol is perhaps one of the most potent antioxidants known. Research shows that resveratrol has anti-vascular endothelial growth factor (anti-VEGF) which they believe offers the greatest degree of protection to human blood-vessel cells, particularly within the retina. New studies indicate it may increase life span. Resveratrol may be useful as a chemo-protectant, cardio-protectant, anti-inflammatory, neuro-protectant and may prove useful for diabetes. Fortifeye was one of the first in the industry to utilize resveratrol in their formulas.

Riboflavin (B2):

Required for a wide variety of cellular processes; like the other B vitamins, it plays a key role in energy metabolism. Riboflavin is required for the metabolism of fats, carbohydrates, and proteins. Deficiencies can cause corneal and lenticular opacities.

Rutin:

A citrus flavonoid glycoside and antioxidant. It has been suggested that rutin might play an important role in inhibiting some cancers, as well as strengthening the capillaries, including those in the choroid. Rutin is also an inhibitor of VEGF which may prove useful in diabetic retinopathy and wet macular degeneration.

Selenium:

A trace element not naturally produced by the body, selenium is found in high concentration in nuts. Selenium functions as cofactor for reduction of antioxidant enzymes such as glutathione peroxidases and thioredoxin reductase.

Taurine:

Compound that in recent laboratory studies have shown that taurine can influence (and possibly reverse) nerve blood flow, motor nerve conduction velocity, and nerve sensory threshold defects. In certain animal cases, the absence of taurine causes central retinal degeneration.

Thiamine (B1):

Plays an important role in helping the body convert carbohydrates and fat into energy. It is essential for normal growth and development and helps to maintain proper functioning of the heart and the nervous and digestive systems. Thiamine is water-soluble and cannot be stored in the body. However, once absorbed, the vitamin is concentrated in muscle tissue.

Turmeric (Curcumin):

Naturally occurring in turmeric, curcumin is in curry spice. Curcumin is known for its anti-inflammatory, chemoprotective, antioxidant, anti-amyloid and anti-VEGF (anti-vascular endothelial growth factor) properties. Studies indicate this compound may be beneficial in inflammatory diseases in the eye and may prove to be effective in slowing down certain types of cataracts. New studies indicate it may decrease chances of developing dementia.

Vanadium:

A trace metal most popularly added to drinking water in Asia. It has been suggested that vanadium improves blood sugar control, and increases muscular strength, as well as osteoporosis treatment.

Zeaxanthin:

Zeaxanthin is one of the two carotenoids contained within the retina of the eye. Zeaxanthin and lutein have an almost identical chemical structure and have similar properties. Zeaxanthin, like lutein, increases macular pigment density and also helps to filter out the harmful blue light from the sun. Gogi berries have one of the highest sources of zeaxanthin and orange bell peppers are relatively high in zeaxanthin and more readily available. Zeaxanthin may also have some protective effects on cataract formation. Zeaxanthin may inhibit VEGF and prove useful for diabetic retinopathy and wet macular degeneration.

Zinc:

A trace metal, zinc is an activator of certain enzymes, such as carbonic anhydrase, important in the transport of carbon dioxide in blood. Clinical studies have found that zinc, combined with antioxidants and certain vitamins (A, C, and E) may delay progression of age-related macular degeneration. Also, significant dietary intake of zinc has also recently been shown to impede the onset of flu. Fortifeye Vitamins uses Opti Zinc to gain superior absorption and bio availability over other forms of zinc.

IMPORTANT NOTE:

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