

Doctors Share
THE
SCIENCE BEHIND
Over 30™

CARDIOVASCULAR SUPPORT



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Research by Nobel Laureate Leads to New and Improved Over 30™

RBC Life Sciences is pleased to announce a new and even more healthful formula for the very popular supplement, Over 30. The scientific team at RBC conducts ongoing research to improve existing products and to develop new ones. We also review worldwide literature for new information on the effects of nutrients reported by other scientists.

The Original Over 30™

Over 30 was originally formulated with glycine, glutamine, pyroglutamic acid, and velvet bean (*Mucuna puriens*) to nutritionally support growth hormone releasing hormone (GHRH), which is needed to release your own natural growth hormone.* Glycine and glutamine are dietary amino acids that form peptides which support:



- 1) children's growth,
- 2) muscle mass growth in adults,
- 3) firm youthful skin,
- 4) reduction of body fat, particularly abdominal fat
- 5) the function of nerve cells, brain cells, and sex organs

We have now developed an Over 30 formula that continues to provide these original ingredients but is better than ever -- with new ingredients and new benefits!*



New and Improved Over 30™

We have added L-arginine, lysine, and GABA, as recommended by Dr. Ronald Klatz in his book, *Hormones of Youth*. Dr. Klatz is recognized as a leading authority having authored eight books on anti-aging and having served as a president of the American Academy of Anti-Aging Medicine.

Noble Prize Awarded to the Discoverers of Nitric Oxide Benefits

Another source of new information was provided by the research team of Drs. Ignarro, Furchott, and Murad who were awarded the Nobel Prize in Medicine for their outstanding discovery that nitric oxide (NO), produced naturally in our cells, has many previously unknown functions important to health:

- 1) NO protects the heart and blood vessels from free radical damage and plaque formation.
- 2) By relaxing arteries it causes vasodilatation and controls blood pressure. This helps blood flow to organs, including sex organs, and to the brain for mental acumen.
- 3) Produced in white cells, NO is toxic to bacteria and parasites.

Dr. Ignarro later discovered that a supplement of the same L-arginine (described above) and another amino acid, L-citrulline, help the body produce nitric oxide (NO).^{*} Furthermore, he found that by combining these amino acids with Vitamins C and E, folic acid and alpha lipoic acid, and by taking all of them together, the subject experienced maximum cardiovascular benefits.^{*}

Dr. Ignarro described his formula, and its remarkable functions, in his book, ***NO More Heart Disease. How Nitric Oxide Can Prevent - Even Reverse - Heart Disease and Strokes.***^{*}

The Mayo Clinic evaluated Dr. Ignarro's discovery. They conducted a 6-month trial on 26 patients with endothelial (blood vessel lining) dysfunction. One half of the patients received 3 grams a day of arginine; the other half received a placebo (no arginine). After 6 months those receiving arginine showed substantial improvement in endothelial function and blood flow through the coronary vessels. This function ultimately supports optimal circulation not only in the heart but other vessels throughout the body as well.^{*}

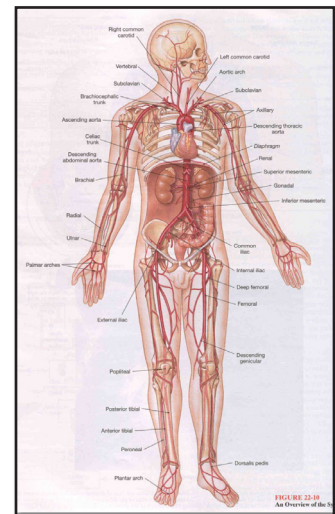
RBC has improved Over 30, making it not only a supplement to support production of GHRH with new ingredients recommended by Dr. Ron Klatz, but now also a heart-healthy supplement shown to support the integrity of the entire blood vascular system.^{*} To provide these important benefits in Over 30, we incorporated the exact amounts recommended of all the ingredients used by Nobel laureate, Dr. Louis Ignarro to support heart health.

How does good circulation affect the body?

Good circulation encourages blood flow to the brain, the reproductive and sexual organs, the heart, the muscles, the kidneys and liver. Optimal vessel health and blood flow will support optimal function of all these organs.

How does arginine work in the body?

Blood vessels and arteries are lined with a special group of cells referred to as endothelium (internal lining). This layer of cells produces factors that help protect and maintain the integrity of the blood vessels. Nitric oxide (NO) is an antioxidant manufactured by these cells. NO works to destroy free radicals and protect blood vessels from oxidative stress that chemically chisels away the lining of the vessel wall. A series of related events can exacerbate this initial nick on the vessel wall such as further damage at the vessel surface, accumulated arterial plaque, aggregation of platelets and immune responses and finally the blood vessel becomes obstructed. Soon the circulatory capacity of the vessel is impaired as the vessel becomes narrow and less elastic. Poor circulation leads to age related memory and thinking impairment, weakened circulation to the heart muscle and other organs, and less optimal sexual function. The amino acids, arginine and citrulline when taken in effective dosages, like in New Over 30, provide the



fuel necessary for blood vessel and arterial cells to produce NO antioxidant to keep the initial oxidative damage at a minimum and to relax the vessels so blood flow is optimal. This is one of the most important functions for the body and the heart.*

Dr. Ignarro who published recommendations for the heart healthy formula stated it was important to add other ingredients and in optimal amounts to synergistically support cardiovascular function and circulatory health. Over 30 contains other antioxidants proven to reduce oxidative by-products that result in damaging blood vessels and arteries such as vitamin C, vitamin E, folic acid, vitamin B6, taurine, B12 and alpha-lipoic acid. This is an important RBC formulation that provides the nutrients that support the strength and integrity of your blood vessels and arteries. It provides factors for neurotransmitters to calm and relax you, and added ingredients that are supporting a healthy heart and circulatory system during the day and while you sleep.*

Ingredients that Support Nitric Oxide*

L-arginine and L citrulline are used as fuel for the cells lining the blood vessels to produce nitric oxide. L-citrulline works synergistically with L-arginine and taken together the full benefit of NO production is achieved. Your body naturally produces both amino acids but it can use more for optimal production of NO.*

GABA is a necessary factor in the system of nerve transmission. **γ-Aminobutyric acid (GABA)** is the major inhibitory neurotransmitter (stops nerves from over-firing) in the brain.

Taurine is an important amino acid found in high concentrations in the myocardium, the layer of muscle cells that forms the heart wall. Taurine consumption may help protect heart tissue from stressful damage. An experiment reported in *Circulation* 2004, conducted by University of Toronto, showed that when toxic levels of iron were fed to animals they had severe heart damage. If the animals received taurine in their diet, however, the heart tissue was protected from the iron-induced damage. There are high concentrations of taurine in the heart and myocardium of healthy individuals. Taurine has also been shown to enhance cognitive function and support memory and wakefulness.

Lysine when taken with arginine was shown in a clinical study published in *Nutritional Neuroscience* 2005, to relieve signs of anxiety created during socially stressful conditions.

Additional Ingredients Make Over 30 Even Better as an Anti-aging Formula

(5-HTP) Small amounts of 5-Hydroxytryptophan have been added to help produce serotonin, an important neurotransmitter for its mood elevating, calming and appetite suppression effects.

ALA (Alpha Lipoic Acid) Dr. Ignarro recommends 10 mg of alpha lipoic acid daily, the amount delivered in two daily serving of Over 30. It supports the energy molecules that feed the mitochondria and generate energy. It protects the oil-based lipoproteins and reduces peroxidation of lipoproteins in support of a

healthy heart and blood vascular system. It also increases glutathione levels supporting the detoxifying action of the liver. Glutathione is a major anti-aging antioxidant that has shown effects towards protecting and even reversing damage in cells.

Pyridoxine 5-phosphate is an important B vitamin necessary for metabolism in the heart. A study showed that 78% of subjects with coronary dysfunction had low or deficient levels of pyridoxine 5-phosphate as compared to healthy subjects as reported in *Advances in Experimental Medicine and Biology*, 2003.

Folic Acid, vitamin B6, and vitamin B12 when taken in combination support the reduction of homocysteine levels in the blood found to be increasingly important for supporting heart and cardiovascular health along with a healthy low fat and low cholesterol diet. Homocysteine appears to injure the endothelial cells responsible for the body's production of NO. Folic acid may directly improve nitric oxide production. An article published in the *Journal of the American Medical Association* in 1997 showed individuals that took supplements that contained folic acid, vitamin B6 and B12 had greatly improved heart health. Dr. Ignarro recommends 400 to 800 micrograms of folic acid daily. Over 30 contains 400 micrograms of folic acid in two daily servings.

Vitamin E - Dr. Ignarro recommends at least 200 IU daily of vitamin E, equivalent to the amount delivered in two servings of Over 30. It has been studied substantially for its antioxidant effects on helping reduce peroxidation of fats in the blood so that they are not as damaging to arteries. It helps blood flow more smoothly through the body and through the heart muscle itself. A study reported in the *New England Journal of Medicine* in 1993, showed that women who took 100 IU per day or more for over two years had 41% improved heart health parameters. A similar study showed that men who took 100 IU per day also showed a 37% improvement in heart health.

Vitamin C - Dr. Ignarro recommends 500 mg daily of vitamin C, and two servings of Over 30 contains this amount. Vitamin C is a necessary vitamin for the function of heart cells, and acts as an antioxidant scavenging free radicals. It supports the vascular matrix of veins, arteries, and capillaries to keep them flexible. At the UCLA School of Public Health, investigators studied more than 11,300 adults. Those that consumed more than 50 mg of vitamin C tended to be far healthier in numerous aspects than those that did not. At the University of Tennessee in a study published in *Circulation* 1995, researchers evaluated the effects of vitamin C on 11,000 subjects. Men and women over age fifty-five who consumed high levels of vitamin C experienced less thickening of their carotid arteries, compared to those who consumed lower amounts. One would have to consume five 8-ounce glasses of orange juice to obtain the equivalency of 500 mg of vitamin C.

Thiamine (B1) is a vitamin that has been added to the formula because it is essential for the heart and cardiovascular system.

Riboflavin (B2) is an important vitamin, especially for the metabolic activities occurring within the mitochondria for cellular energy production. Heart muscle and liver have abundantly more mitochondria within cells than other tissues and organs because heart and liver are metabolically active constantly.

Niacinamide is a vitamin found to support the maintenance of healthy blood lipid levels, making it an important vitamin for the health of the cardiovascular system.

Pantothenic Acid is necessary for maintaining a regular heartbeat.

Magnesium is an important mineral that the heart muscle needs to maintain heartbeat regularity.

Stevia Powder is a natural herb with a sweet taste to enhance flavor.

New Over 30 continues to provide the important original nutrients shown to help build protein messengers and a healthy nervous system.

L-glutamine- Glutamine is found abundantly in muscle and brain. Glutamine is the most important source of energy for macrophages and lymphocytes that support the immune system and rid the body of foreign invaders. If its concentration is reduced during stressful circumstances the body loses immune function, white blood cells do not reproduce as well and immune messengers are compromised. During stress or illness glutamine levels become low.

Pyroglutamic acid as a biochemical stimulates release of thyroid stimulating hormone, which increases energy-yielding metabolism in liver and muscle. It increases the basal metabolic rate of the body. Aging adults who produce less of this valuable protein messenger often experience fatigue, sensitivity to cold, and weight gain.

Mucana pruriens (velvet bean) has been used highly as a traditional herb. It is a Columbian bean often taken as a hot drink. It contains a compound called levadop (l-dopa), similar in structure and function to dopamine, which has been used in native populations and clinically for its beneficial effects on the aging nervous system. It helps maintain stable blood sugar levels. This herb also contains amino acids, manganese, zinc, and serotonin, an important neurotransmitter.

Glycine administration has shown an effect on pituitary function. A study published in *Acta Endocrinologica* 1980, showed that glycine affected the production of endocrine growth messengers. These messengers support lean body mass, smooth skin and muscular strength. Many peptide messengers are made from stores of glycine. They trigger activity throughout the body for maintaining sugar balance, metabolism, for stimulating energy production, and glandular functions. These are important for maintaining a youthful appearance.

The new Over 30 is an outstanding supplement, formulated on sound research, that can benefit major systems in your body and may help you achieve and maintain a healthier life. Over 30 is a powder packaged in a wide mouth canister with a convenient scoop. It dissolves quickly in water and has a very pleasant citrus-flavored taste. It can be taken twice daily, once during the day between meals and once just before bedtime.

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

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