Dr. Louis Ignarro
Nobel Laureate in Medicine
For Nitric-Oxide Research
IN 1998, DR. LOUIS IGNARRO was named a Nobel Prize Laureate, joining an elite group of scientists including Albert Einstein, Linus Pauling and Marie Curie, whose discoveries have had a dramatic impact on humankind.

Dr. Ignarro received the Nobel Prize for his groundbreaking research on Nitric Oxide. A tireless researcher, he has continued to push the boundaries of science even further. The result is a unique formulation of ingredients based on Cellular Nutrition that optimizes production of health-enhancing Nitric Oxide in the body.

Among his many distinctions, Dr. Ignarro was inducted into the National Academy of Sciences and the American Academy of Arts and Sciences in 1999. He received the Basic Research Prize of the American Heart Association for his outstanding contributions to the advancement of cardiovascular science. He is also the founder and president of the NITRIC OXIDE Society, as well as founder and editor-in-chief of the scientific journal NITRIC OXIDE Biology and Chemistry.

1 The Nobel Prize is a registered trademark of The Nobel Foundation.
Though you may never have heard of Nitric Oxide, scientific research from around the world has demonstrated that Nitric Oxide is one of the most significant molecules in the human body and is crucial to your well-being. The difference between health and dysfunction is often the level and activity of Nitric Oxide in your body. Nitric Oxide is critical to the promotion of both your health and longevity.

Nitric Oxide is actually a gas that acts throughout the body as a messenger, sending and receiving messages that regulate the activity of cells. Nitric Oxide instructs the body to perform certain key functions. In fact, Nitric Oxide influences the functioning of virtually every organ in the body, including the lungs, liver, kidneys, stomach, genitals and, of course, the heart.

The cardiovascular system uses Nitric Oxide to control blood flow to every part of the body. Not only can Nitric Oxide relax and dilate (enlarge) the blood vessels, thus ensuring that blood can efficiently nourish the heart and tissues of the entire body, Nitric Oxide can also support healthy blood pressure levels.

The immune system uses Nitric Oxide to combat toxins, providing a strong internal defense system.

The brain relies on Nitric Oxide to store and retrieve long-term memories and to transmit information within the nervous system.

Nitric-Oxide deficiency can contribute to nearly every major disease of our times.

Nitric Oxide enhances blood flow to the genitals, thus playing an important role in normal sexual functioning.

Nitric Oxide is a powerful antioxidant, inactivating so-called “oxygen radicals” (free radicals) in the body that can contribute to cell damage.

A deficiency in Nitric Oxide can have a dramatic impact on your health. Nitric-Oxide deficiency can contribute to nearly every major disease of our times. A total lifestyle approach to supporting Nitric-Oxide levels including a healthy diet, exercise and nutritional supplementation, provides a wide range of benefits throughout the body.

Nitric Oxide influences the functioning of virtually every organ in the body.
Keeping a Pulse on Your Cardiovascular Health

The most vital statistics for checking your heart health are pulse and blood pressure. Both are taken through the arteries. But did you know that your arteries—indeed all your vessels—also serve another critical function? The production of Nitric Oxide!

In addition to arteries which carry oxygen-rich blood away from the heart, your vessels also include veins which carry blood to the heart and capillaries which connect the arteries to the veins. Laid out end to end, an adult’s vessels would be nearly 100,000 miles long! When you think of it that way, it’s easy to understand how your vascular system could exert an important regulating influence over cells throughout your body. Similarly, it also becomes clear how a compromised vascular system can limit the function of vital organs, such as your heart and brain.

**Atherosclerosis**

Although people tend to focus on cholesterol levels when considering their heart health, Nitric Oxide is also an important part of the story, since it helps preserve the youthful elasticity of vessels.

Hardening of the arteries, or atherosclerosis, is the process where cholesterol-based plaques form within the arteries impairing blood flow, while at the same time, the thickened walls of the arteries lose their elasticity. Build-up of plaques effectively narrow the arterial opening through which the blood flows, putting additional stress on your heart to work harder. And if a blockage develops, it can result in a heart attack (blocking flow to your heart) or stroke (blocking flow to the brain).

Hardening of the arteries typically starts in early adulthood and progresses as people grow older. Several factors contribute to the formation of plaque, including high blood cholesterol, dietary fat and smoking. Atherosclerosis is the cause of more than half of all mortality in developed countries and is the leading cause of most heart attacks.

---

**Heart-disease risk factors you CAN’T change**

**Increasing age:** Four out of five people who die of coronary-heart disease are 65 or older. After menopause, hormonal changes put women at a higher risk of developing heart disease.

**Gender:** Men have a greater risk of heart attacks than women and have heart attacks earlier in life. Still, heart disease is the leading cause of death for U.S. women.

**Hereditv:** Heredity is also a factor. If your parents had heart disease, you’re more at risk.

---

**Heart-disease risk factors you CAN change**

**Smoking:** If you smoke, your risk of heart attack is more than twice that of nonsmokers.

**Obesity or overweight:** People who carry extra weight—especially in the waistline—have a greater likelihood of stroke and heart disease.

**High levels of LDL or “bad” cholesterol:** Although age, gender and heredity factor into your cholesterol level, you can also control it through diet.

**Low levels of HDL or “good” cholesterol:** While low levels are a warning sign, high levels are considered heart protective.

**High blood pressure:** High blood pressure contributes to a majority of all heart attacks and strokes.

**Diabetes:** People who have diabetes often end up with some form of cardiovascular disease.

**Physical inactivity:** Those who do not exercise regularly greatly increase their risk of heart disease.

**Elevated triglyceride levels:** This often goes along with elevated LDL cholesterol as a risk factor.

**Elevated homocysteine levels:** High levels of homocysteine has been linked with arterial damage and increased risk of heart disease.

**Stress:** Some evidence suggests that high stress can make cardiovascular disease more likely.
Benewing from Cutting-Edge Science

Dr. Ignarro has never been one to rest on his laurels. That’s why a new supplement goes even beyond Dr. Ignarro’s Nobel†-prizewinning research. It’s a refinement that’s all about a synergistic blend of ingredients with complementary action to produce more Nitric Oxide and maintain higher Nitric-Oxide levels in the body.

This may be the first time you’ve heard of Nitric Oxide, but guaranteed, it won’t be the last. As the key to good health, it’s the missing link that may make the difference in understanding all kinds of age-related illnesses and circulatory disorders. The cascade of benefits from increased Nitric Oxide are suggested by the growing body of research indicating the role of healthy vessels in preventing cardiovascular disease and age-related disorders.

MORE THAN ANY OTHER SINGLE FACTOR, NITRIC OXIDE MAY BE THE KEY TO LIVING A LONGER, HEALTHIER LIFE.

Make Supplementation a Priority

NUTRITION THAT COUNTS

Exercise and certain foods promote Nitric-Oxide production in your body. A new supplement is designed for nighttime consumption when your body is producing the least amount of Nitric Oxide from food and exercise. However, this formula can also be used during the day. Nighttime or daytime, it would be difficult to ingest the same amount of L-Arginine from foods as what your body gets from supplementation.

† The Nobel† Prize is a registered trademark of The Nobel Foundation.
Vascular Nutrition and Your Health

Why is vascular nutrition so important? Your vascular system delivers oxygen-rich blood to cells throughout your body. Youthful, properly nourished vessels are flexible. This elasticity allows them to deliver a healthy flow of blood throughout the body, providing nutrition to your cells.

HARDENING OF THE ARTERIES
As we age, the walls of our arteries may thicken and become rigid, while at the same time, deposits or cholesterol-laden plaques can build up along the lining of the vessels. This process is called atherosclerosis, commonly known as "hardening of the arteries." As the heart pumps blood through a now-smaller opening in the vessel, blood pressure rises and puts stress on the heart and other parts of the body.

NOBEL† PRIZE-WINNING RESEARCH
So how can you preserve the health of your vessels? Dr. Ignarro’s breakthrough research tells us that Nitric Oxide, a naturally occurring compound in your body, is the key to healthy vessels. And conversely, Nitric Oxide deficiency can contribute to serious ailments that typically occur with aging.

Through vascular nutrition, you can increase the production of Nitric Oxide, which "exercises" or expands your vessels, increasing their youthful elasticity. In addition, Nitric Oxide is an important biological messenger that causes a cascade of benefits at the cellular level which can improve circulatory, immune- and nervous-system function.

NITRIC OXIDE DEFICIENCY AND ENDOTHELIAL DYSFUNCTION
Cardiovascular disease is the leading cause of morbidity and untimely death in North America and is sometimes associated with Nitric Oxide deficiency. The diseases resulting from Nitric Oxide (NO) deficiency include hypertension, stroke, atherosclerosis, heart attacks, diabetes, Alzheimer’s disease, gastrointestinal ulcers and erectile dysfunction. A healthy vascular endothelium is essential to a healthy cardiovascular system because it is required for normal NO production and action. Vascular-endothelial dysfunction leads to decreased NO production and increased oxidative stress, creating a vicious cycle that promotes further endothelial dysfunction.

PROMOTING A HEALTHY ENDOTHELIUM
The most important mechanism by which the body stimulates endothelial NO production is exercise. Physical activity promotes blood flow through the millions of arteries in the body and the friction of the blood flowing against the endothelial cells lining the arteries stimulates the production of NO. This is how exercise promotes not only a healthy heart and healthy cardiovascular system, but also a healthy body, and it’s all due to the work of NO to promote Cellular Nutrition†.

SUPPLEMENTS INCREASE NO PRODUCTION
In addition to exercise, taking certain nutritional supplements can increase the production and action of endothelium-derived NO. These natural substances include L-arginine and L-citrulline, which serve as the body’s fuel to make NO, and L-taurine, vitamin C, vitamin E and alpha-lipoic acid, which work to protect NO against oxidative destruction by free radicals.

When taken together at the same time, these natural ingredients may enable endothelial cells to produce more NO for a healthy endothelium, lower blood pressure and protect against cardiovascular disease.

DIET IMPROVES HEART HEALTH
Another way to keep your endothelium healthy is through diet. A sensible diet that is low in fats and carbohydrates, but rich in proteins, will go a long way in promoting cardiovascular health. Decreased fat intake greatly reduces the body’s production of destructive free radicals and decreased dietary carbohydrates limit the intake of calories. Eating a high-protein diet maintains muscle mass and energy levels. The combination of high protein plus low carbohydrates and fats can result in substantial weight loss, which further promotes a healthy cardiovascular system.

A WINNING COMBINATION
The three lifestyle changes outlined—mild to moderate exercise, a high-protein diet and supplementation—have something in common: they all play a role in enhancing the production and action of endothelium-derived Nitric Oxide. For this reason, exercise, diet and supplementation are a winning combination for maintaining and improving your endothelial health—and a healthy endothelium means a healthy heart. When you combine their results, you can easily see how your overall health and general well-being can improve.
Here is an overview of key ingredients to enhance Nitric Oxide.

**L-ARGININE**
A naturally occurring amino acid found in food, L-Arginine is a protein that the body uses to make Nitric Oxide. It’s difficult to consume enough L-Arginine through food to get the same Nitric Oxide boost available in a supplement.

**L-CITRULLINE**
An amino acid that may be found in melons, L-Citrulline supports the production of additional L-Arginine, which in turn produces more Nitric Oxide.

**D-ALPHA TOCOPHEROL** (Vitamin E)
This preeminent fat-soluble antioxidant can penetrate the cell membrane to neutralize free radicals and promote cell health. Vitamin E supports the activity of Nitric Oxide and improves endothelium (vessel lining) health.

**L-TAURINE**
An amino acid abundant in humans. L-taurine is an antioxidant. It also increases nitric oxide and helps improve performance in exercise.

**ASCORBIC ACID**
Vitamin C is a water-soluble antioxidant. Studies show that the combination of vitamin C, vitamin E and L-Arginine work synergistically to enhance Nitric Oxide production.

**ALPHA LIPOIC ACID**
A co-factor in vital energy-producing reactions in the body. Assists in dilation or expansion of vessels. Also has strong antioxidant activity, while helping recycle vitamins C and E.

**FOLIC ACID**
Promotes healthy levels of homocysteine, which, in excess, can damage the lining of the arteries.

**CALCIUM FOLINATE**
A source of folinic acid. This compound is bioavailable and helps promote healthy homocysteine levels, which at high levels can injure the arterial lining.

**LEMON BALM**
Perennial herb in the mint family with a history dating back 2,000 years. Acts as a calming agent.
BRINGING IT ALL TOGETHER

During the day, you try to eat right and exercise regularly, both of which can stimulate Nitric Oxide production. But during the night, when Nitric Oxide production is naturally at its lowest, what can you do to improve your health? With beneficial supplementation before going to sleep, you’re priming the body for Nitric Oxide production. Your sleep will be restful and you can wake up feeling rejuvenated from your glass of nighttime nutrition.*

MAKE NUTRITIONAL SUPPLEMENTS WORK IN TANDEM
Protein Shakes: L-Arginine is found in soy, which is the source of protein in some products. Protein shakes provide the foundation for daytime nutrition.

OUTER NUTRITION
Through increased production of Nitric Oxide, it promotes circulation. That means you can have improved blood flow, and consequently more oxygen, to all the organs of your body, including your skin. The additional oxygen can help with detoxification, so your skin may stay clearer.

EXERCISE
For total wellness, fitness is an important component of your life plan. The body responds to exercise by producing Nitric Oxide. Here’s how it works: the increased blood flow produced by exercise stimulates the cells in the lining of your vessels to produce Nitric Oxide. It’s one of the reasons that exercise is so good for you and “keeps you young.”

©2004