

Nitric Oxide: The Key to Peak Athletic Performance



Peak health and performance both begin with oxygen and a simple, yet relatively unknown, molecule called nitric oxide (NO).

Because NO is a gas that diffuses rapidly across cellular membranes, it's involved in virtually all physiological processes. When released inside the body, this gas quickly and easily penetrates the cells, promoting optimal, physiological function. Most notably, it relaxes the blood vessels, increasing blood flow, improving oxygen delivery, and cellular energy.

Just a few of the many benefits of a consistently-high NO level include:

- More energy and greater endurance
- Improved lung capacity and oxygen delivery
- A stronger, more powerful heart
- Increased focus and concentration

A number of studies have shown that achieving and maintaining a high nitric oxide level will reduce the oxygen cost of moderate-intensity exercise and extend an athlete's time to exhaustion during high-intensity exercise.

(Bailey SJ, et al. J Appl Physiol. 2010;109(5):1394-403)

“There may be no disease process where this miracle molecule does not have a protective role”

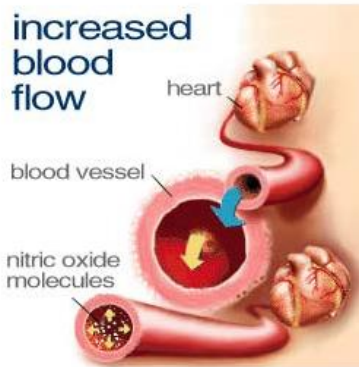
– Louis J. Ignarro, PhD, a 1998 Nobel Laureate

Now, almost 17 years after the Nobel Prize award and more than 120,000 scientific papers later, we are finally beginning to appreciate the foundational role NO plays in both health and disease—and the critical importance of having enough of this vital compound in your body.

It's all about oxygen.

Because it's responsible for delivering oxygen-rich blood to every cell, tissue, and organ system in the human body, nitric oxide (NO) is now recognized by the scientific, medical, and athletic communities as a key, physiological performance variable.

And better blood flow.



Better blood flow supports the muscles' ability to contract and to clear metabolic by-products such as lactic acid. The oxygen cost of exercise is reduced, due to more efficient ATP (energy) production by the muscle mitochondria.

Athletes using a nitric oxide supplement report a lower perceived effort and easier breathing during exercise in addition to reduced muscle soreness and a faster recovery following hard, physical efforts.

And a whole bunch of other benefits!

NO also acts as powerful antioxidant by neutralizing harmful, free radical activity and by promoting the formation of glutathione, a critical antioxidant. It facilitates the transmission of messages between nerve cells contributing to improved memory and learning capacities, better sleep, and a more positive mood. It supports the immune system by helping the body fight off infections.

NO improves athletic performance.



Increased NO levels have been scientifically shown to enhance athletic performance and endurance—even among athletes who were already fit and healthy. This makes sense given that NO contributes directly to blood flow, oxygen delivery, glucose uptake, muscle velocity, power output, and muscle growth; it's only logical that a higher NO level will enhance an athlete's overall performance.

The Power of High-Nitrate Beets



Ingesting dietary nitrates (most notably those derived from beets and dark green vegetables) enhances the body's ability to produce its own nitric oxide and improve athletic performance and recovery.

[Watch](#) "Out of the Lab and onto the Track," a short, informative video on the power of dietary nitrates.

Proven benefits!

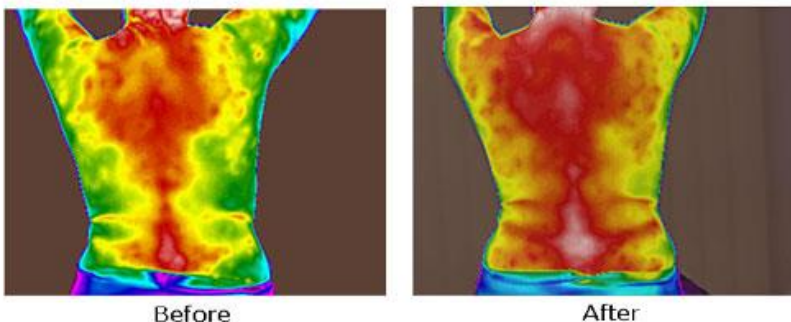
In a double-blind, placebo-controlled study, 11 fit men and women were evaluated during two 5K treadmill time trials. 75 minutes prior to one trial, the subjects ingested 200 grams of roasted beet root with 500mg of nitrate. Prior to another trial, the subjects ingested cranberry relish as a placebo.

The investigators noted that **the mean running velocity during the 5K trial was faster after beet root consumption as compared to the placebo.** During the last 1.1 miles of the time trial, running velocity was five percent faster in the beet root trial. And subject feedback at 1.8K into the beet root trial group also indicated a **lower perceived rate of exertion** as compared to the placebo group.

Studies on foods rich in nitrates (especially red beets and kale), which enable NO production, have shown that a high nitric oxide level can increase an athlete's endurance capacity by at least 16%.

(Murphy M, et al. J Acad Nutr Diet. 2012;4:548-52)

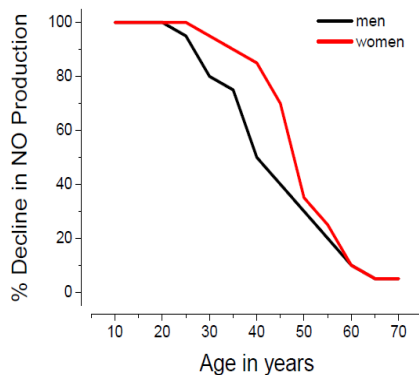
High-nitrate beets boost circulation.



The image on the right shows a higher skin temperature after the consumption of nitrate-rich beets. The more vivid, red color clearly illustrates the areas of improved blood flow in the body.

A High NO Level is Even More Important as You Age

While NO levels decline for a variety of reasons—arterial damage, a lack of dietary nitrates, low stomach acid, imbalanced mouth bacteria, and excessive physical and mental stress—age is the greatest threat to your NO level. As your NO production begins to decline after the age of 40, health risks rise and performance gains decline exponentially.

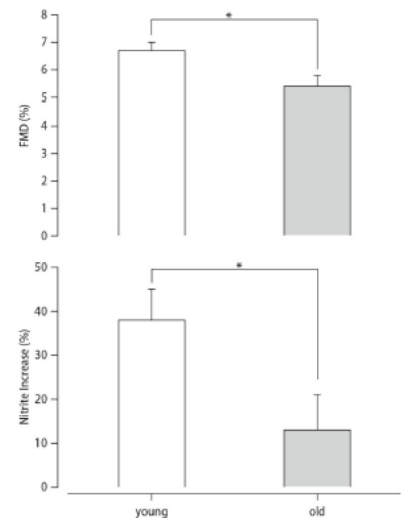


NO levels decline with age.

By the age 40, your body will produce half the NO it did at the age of 20. By the time you reach 70, it will be capable of producing only 25% of the nitric oxide it needs.

Reduction in blood flow and nitrate levels in younger versus older athletes, after the same exercise stimulus.

The amount of nitrite found in your body following physical exercise is a reliable predictor of your overall fitness capacity. With age, the amount of NO your body can generate after exercise is reduced. This is why older athletes lose their responsiveness to training—they have to work harder in order to achieve the same training-related benefits.



Is your nitric oxide level low?



Ask yourself the following questions. If you answer "yes" to any two or more, your NO level is probably low.

Are you over the age of 40?

Do you eat few green vegetables and/or red beets?

Do you train at high-levels more than 10 hours a week?

Do you have gum disease or bad breath?

Do you use anti-acids or suffer from indigestion?

Do you suffer from any form of bowel distress?

Do you frequently take antibiotics or use an antiseptic mouthwash?

Do you regularly use anti-inflammatory medications such as Motrin or Celebrex?

Do you suffer from sexual dysfunction?

Are your hormone levels imbalanced?

Do you have circulation problems and/or fluid retention issues?

Do you suffer from abnormally high CRP, or an autoimmune disease?

Have you been diagnosed with asthma, bronchitis, or a lung disease?

Check Your nitric oxide level



Until very recently, there was no easy way to assess your NO level. Testing required costly blood work or a complicated procedure called Flow Mediated Dilation, which indirectly predicted NO levels by measuring the rate of blood flow in the arm after pressure was applied.

Fortunately, recent advances in laboratory testing technology make it possible for you to easily and regularly measure your NO levels—anywhere, anytime—using nothing more than a test strip and a drop of saliva.

It's a basic necessity!

Don't guess. While it is always helpful to maintain a conscious awareness of any improvements in the way you feel and perform, salivary test strips provide an objective foundation for determining improvements in your NO level.

Despite its deceptive simplicity, a salivary nitric oxide assessment is a powerful tool that will allow you to monitor how your NO level changes with dietary and lifestyle choices, training intensity, stress, and the use of supportive supplements.



A few times a week is all it takes!

By using a nitric oxide assessment strip to check your NO level the first thing in the morning and after eating nitrate-rich foods and/or using a natural, nitrate-rich supplement such as **Pure Clean Powder**, you can accurately assess your body's ability to produce and maintain an optimal amount of NO. And you can determine just how much you should be supplementing for maximum health and performance results.

How do the NO strips work?

The reagent on the strips detects the nitrates in your saliva and changes color based on their total amount. The darker the color, the larger your body's nitric oxide supply.

It couldn't be any easier or more convenient.

Simply place the collection end of the strip in your mouth, fold in half to touch the reagent on the opposite end, and compare the resulting color on the test strip pad to the color chart on the package. If the test strip turns dark pink, your NO level is strong. If the test strip only turns a pale pink, or is entirely without color, you need more nitric oxide.



DEPLETED THRESHOLD OPTIMAL

Track your NO levels over time.

You should initially assess your NO level every morning (upon waking) so that you will be able to determine how any changes in your activity, lifestyle, diet, and supplement use affect your results. Once a consistently-high nitric oxide level is achieved, you can assess your saliva once or twice a week.



*"As a coach and athlete, I strive for measurable performance gains. With **Pure Clean Powder's** NO strips, I can be sure that my dietary nitrate intake and nitric oxide level is high enough to make a definitive difference during training and racing."*

Charles Miron,
Canadian Ultra Distance Running Champion
Founder of Solo Sports Systems, Calgary

How to Optimize Your Nitric Oxide Level

By using Pure Clean Powder and following the **NO restoration strategies** outlined below, almost all athletes will be able to achieve a performance enhancing optimal NO level in just a few weeks.

Use 1/2 to 2 scoops of Pure Clean Powder daily.

pure, clean powder.



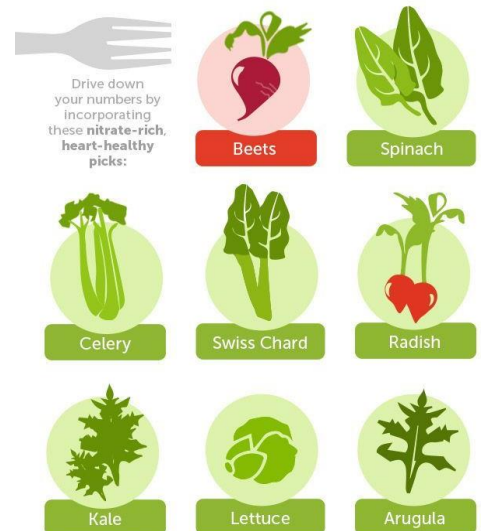
Our 100% organic, high-nitrate-certified beet juice powder reacts with the beneficial bacteria in your mouth to boost your body's ability to produce nitric oxide. In fact, the regular use of **Pure Clean Powder** can actually improve your body's ability to create even more NO from the dietary nitrates in your food!

Adjust your dose daily as needed to keep your baseline NO assessments strip in the pink. For even better results, take an additional dose one hour prior to physical training or racing.

Eat five to seven servings of nitrate-rich vegetables daily.

Foods rich in dietary nitrate are converted into NO in your body. Make sure to chew your food well and consume liquids slowly in order to keep them in your mouth where healthy, naturally-occurring bacteria will activate the NO production process.

The foods highest in nitrate include beet roots and leafy greens such kale, arugula, chard, and spinach. Others are parsley, Chinese cabbage, leeks, celery, radishes, and turnips. In order to increase your intake of these nitrate-rich vegetables, you can make vegetable juices, add steamed or roasted beets to a blended protein drink, or simply add a powdered fruit and vegetable concentrate to your daily supplement routine.



Eat foods that are rich in polyphenols.

Foods rich in polyphenols and flavonoids (potent antioxidants) encourage the endothelial cells in your arteries to produce more NO. These foods include red wine, dark chocolate, red beets, berries, cherries, and pomegranates.

Eat fresh foods that are rich in vitamins C and E.

Eating a variety of foods rich in vitamins C and E can help preserve and maintain your NO level. These include citrus fruits, broccoli, blueberries, sunflower seeds, almonds, tomatoes, and leafy green vegetables.

Breathe through your nose.

The sinuses produce NO when you breathe through your nose! As air travels from the nasal passages into the lungs, a portion of the available NO gas is used as a bronchial vasodilator. This process speeds oxygen delivery and promotes antibacterial activity.

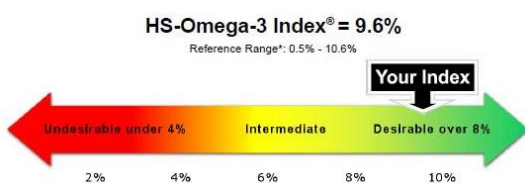
Avoid the use of antiseptic mouthwash and antacids

The effective conversion of dietary nitrates to nitric oxide requires an abundance of healthy bacteria in your mouth and high levels of digestive enzymes in your stomach. Antiseptic mouthwash reduces this essential, oral bacteria; antacids suppress the production of stomach acid, interfering with NO production. [Watch](#) this short video on why you shouldn't use an antiseptic mouthwash.

Get adequate rest and recovery.

Don't overlook the powerful, restorative effects of getting eight hours of sleep at night for healthy NO production and maintenance. Take time out for yourself each day. Listen to calming music, watch a comedy show, read a book, go for a walk, play. If you're spiritual, dedicate a portion of each day to practicing your faith. Just five to ten minutes of silence a day can have a positive impact on your overall health and performance.

Load up on omega 3 fats.



Eat plenty of omega 3 essential fatty acids (found in wild, cold-water fish, grass-fed meats, macadamia nuts, pumpkin seeds, hemp seeds, and chia seeds) on a regular basis. Strictly avoid the inflammatory omega-6 fats found in soy, corn, safflower, canola, and sesame oils, as well as the

artificial trans-fats found in margarines and other processed foods.

Assess your omega 3 levels to determine whether you need additional omega 3 supplements. **99.5% of all athletes need supplemental support!** Check your omega 3 level [here](#).

Get at least 20 minutes of exposure to sunlight, three times a week.



Sunlight activates beneficial bacteria on the skin, triggering the production of vitamin D3—a primary health and performance nutrient which drives nitric oxide production.

Because full-body sun exposure is often impractical due to time limitations and weather conditions, it is important to assess your vitamin D3 level and supplement your diet for at least a portion of the year.

Assess your vitamin D3 level to determine your need for a vitamin D supplement. **90% of all athletes do, even those living and training in warm, sunny climates!** Start the assessment process [here](#).

The Pure Clean Powder Formula for Success



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Enter the code **GOBEET** with your first order to receive a 20% off your order of Pure Clean Powder. You'll also receive **3 FREE** single-serve packets and **5 FREE** nitric oxide assessment strips.

Buy Now