

# FACT SHEET

## Nitric Oxide (NO)



**For More information About Nitric Oxide, Contact:**

Karen Manroe  
(512) 415-6689  
*karen@neogenesis.com*

Alicia Sankar  
(512) 657-6733  
*alicia.sankar@fleishman.com*

### **Nitric Oxide:**

The 'messenger molecule' that helps maintain optimal cardiovascular, immune and nervous system function.

### **Nitric Oxide Science**

More than three decades of research and more than 100,000 published papers have proven the critical role of Nitric Oxide in the human body. In 1998, the Nobel Prize was awarded for the discovery of Nitric Oxide as a signaling molecule in the cardiovascular system. Since then, an increasing body of research has continued to investigate the therapeutic potential of Nitric Oxide, amplifying the need for maintaining adequate Nitric Oxide levels in the body.

### **Nitric Oxide in the Body**

Nitric Oxide production and availability in the body is essential to health — as with oxygen, we cannot live without it. Naturally produced in the body, Nitric Oxide is known as a "messenger molecule," because it helps the cells of the body communicate with each other, controlling physiological processes in virtually every organ. Nitric Oxide plays a key role in maintaining optimal function of the cardiovascular, immune and nervous systems. It is primarily known for maintaining normal blood pressure and blood flow to the tissues.

### **Nitric Oxide Levels Decline with Age**

As we age, the body produces less and less Nitric Oxide, which may play a key role in the decline in overall health and development of disease risk factors. Research indicates age-related changes to the body's Nitric Oxide production pathway causes decreased Nitric Oxide production and availability, which has been implicated in the development of high blood pressure and poor circulation.

## Diet and Lifestyle Supports Nitric Oxide Production

Emerging research indicates diet and lifestyle may support and restore Nitric Oxide production and availability in the body. Diet is a primary source of nitrates and nitrites — molecules the body uses to produce Nitric Oxide.

Recent research indicates that consumption of nitrate-and nitrite-rich foods can increase blood levels of Nitric Oxide. Approximately 80 percent of dietary nitrates are derived from vegetable consumption. Sources of nitrites include vegetables, fruits and processed meats. Some foods are better at encouraging Nitric Oxide production than others, due to their high concentration of naturally occurring nitrates. For example, research indicates beet root juice is especially effective.

Exercise can increase Nitric Oxide bioavailability, particularly in younger, healthy individuals. Preliminary research suggests dietary supplements that support the production of Nitric Oxide in the body may be appropriate for Nitric Oxide restoration.

### Common Foods with Nitric Oxide Generating Capacity

Nitric Oxide Generating Capacity	Vegetable Varieties
Very low (<20)	Artichoke, asparagus, broad bean, eggplant, garlic, onion, green bean, mushroom, pea, pepper, potato, summer squash, sweet potato, tomato, watermelon
Low (20-<50)	Broccoli, carrot, cauliflower, cucumber, pumpkin, chicory
Middle (50-<100)	Cabbage, dill, turnip, savoy cabbage
High (100-<250)	Celeriac, Chinese cabbage, endive, fennel, kohlrabi, leek, parsley
Very high (>250)	Celery, cress, chervil, lettuce, red beetroot, spinach, rocket (rucola)

Santamaria, P. Nitrate in vegetables: toxicity, content, intake and EC regulation, Journal of the Science of Food and Agriculture 86:10–17; 2006

For more information about Nitric Oxide, visit  
<http://www.neogenis.com/about-nitric-oxide/>