

## New study: pine bark extract boosts nitric oxide production

October 17 2007

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A study to be published in the October edition of Hypertension Research reveals Pycnogenol, (pic-noj-en-all), an antioxidant plant extract from the bark of the French maritime pine tree, helps individuals by enhancing healthy nitric oxide (NO) production which leads to an increase in blood flow and oxygen supply to muscles.

Nitric oxide, a key cardiovascular chemical produced by the body, increases blood flow that serves to deliver more nutrients and oxygen to the muscles, helping muscles to cope with increased physical activity and build when subjected to regular elevated labor.

“This study suggests that when taking Pycnogenol, more NO is provided in response to neurotransmitters allowing for better expansion of arteries to carry more blood. This process serves to meet the enhanced oxygen demand of the performing muscle and avoid anaerobic metabolism,” said Dr. Yukihiro Higashi, lead researcher of the study. “These results also lead me to determine that Pycnogenol will be a useful natural alternative therapy in various diseases in which oxidative stress is involved in the pathogenesis.”

The double-blind, randomized, placebo study was held at the Hiroshima University Graduate School of Biomedical Sciences in Japan. Every day for two weeks young healthy men either took 180 mg Pycnogenol or a placebo. To identify Pycnogenol’s effect on the release of NO, an inhibitor of the amino acid L-arginine was infused in patients, which restricts the expansion of arteries in response to the neurotransmitter

acetylcholine.

After two weeks of supplementation with Pycnogenol, results revealed blood flow increased in response to acetylcholine stimulation by 42 percent. In contrast, the control group receiving the placebo did not show a pronounced blood flow increase in response to neurotransmitter stimulation.

“Acetylcholine stimulates the cells of arteries to produce NO from L-arginine faster,” Dr. Higashi said. “In turn, the NO causes the muscle surrounding arteries to relax, which results in an increase of blood vessel diameters. When subjects had taken Pycnogenol the relaxation of arteries was increased by 42 percent as compared to the group taking placebo tablets.”

According to Frank Schönlaue, Ph.D, director of scientific communications for Horphag Research, worldwide distributors of Pycnogenol, “While more research is warranted, this is an encouraging breakthrough especially to athletes as Pycnogenol seems to allow people to move faster when exercising by satisfying the enhanced muscle oxygen demand and increasing the blood flow to active muscles. When people are performing heavy physical activity, nerves release neurotransmitter acetylcholine to arteries supplying muscles, which makes them expand, a process that requires enhanced production of NO.”

A multitude of studies about Pycnogenol and sports nutrition have been conducted. Most recently, a year ago, Pycnogenol was demonstrated to improve blood circulation and support a lasting aerobic muscle activity during any kind of activity and enhance sports endurance by alleviating cramping and muscular pain in athletes. In short, Pycnogenol is effective for enhancing and prolonging muscle performance during sport, supports muscle adaptation to higher work-load and allows for faster physical

recovery.

Source: MWW Group

Citation: New study: pine bark extract boosts nitric oxide production (2007, October 17)  
retrieved 4 July 2024 from <https://medicalxpress.com/news/2007-10-bark-boosts-nitric-oxide-production.html>

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