

ARGININE & EXERCISE

A dynamic duo for people with heart failure

If you think of arginine as just another amino acid, think again. Found in nuts, seeds and meats, arginine is a nutritional powerhouse when it comes to promoting healthy circulation. While the amino acid isn't considered essential for all adults, it is essential for children and may be needed by adults with certain health problems, according to Mary Mayell in his book, *Off the Shelf Natural Health*. The findings of a recent study on arginine and patients with chronic heart failure drove that point home.

Help for people with heart failure

The first prospective, randomized clinical trial of its kind, published in the *Journal of the American College of Cardiology*, found that arginine, when combined with exercise, had an additive effect on vasodilation, or dilation of blood vessels, allowing for better blood flow in patients with chronic heart failure. People with chronic heart failure have enlarged hearts that don't pump blood efficiently, so they're often out of breath and have fluid accumulation in their limbs and lungs. They also have damaged endothelium, or inner blood vessel walls, meaning that their blood vessels don't dilate and circulation is compromised.

In the study, 40 patients with severe chronic heart failure were divided into four groups and studied for four weeks: one group was given 8 grams of L-arginine (the most effective form of the amino acid) per day; a training group performed daily handgrip training; a third group took L-arginine and trained; and a fourth group did neither. All continued taking their usual medication.

The arginine group and the training group had similar, significant improvements in vasodilation, but **people who trained and took arginine had the most significant improvements**, leading researchers to believe that arginine and exercise have an additive effect. A key symptom of chronic heart failure is exercise intolerance due to inadequate blood flow, so improving blood flow in these patients may limit muscle fatigue and result in better endurance.

Numerous other studies have shown that **arginine has a vasodilatory effect on people with high cholesterol levels, those with high blood pressure and others with compromised circulation associated with heart disease.**

Other benefits of arginine

Chris Meletis, N.D., Dean of Clinical Education at the National College of Naturopathic Medicine in Portland, Oregon and author of *Better Sex Naturally* (Harper Collins) cites some other, potential, benefits of arginine supplementation, for healthy people: 1) impotence, because it helps relax arteries in the penis, allowing for better blood flow; 2) wound healing, because it increases protein synthesis; 3) endurance, because, to some degree, good circulation is necessary to carry oxygen to muscles and metabolic wastes away from them, but more research is needed on arginine's role here.