

# Secrets of Longevity from the World's Longest-Living People Revealed

**Western researchers unravel the mysteries of the people of Okinawa.**

**From the “Journal of Longevity” Volume 9 No. 2 February 2003 By Ron Kennedy, M.D.**

*Ron Kennedy, M.D., received his certification from the American Board of Psychiatry and Neurology in 1975. Since that time, he has expanded his medical practice to cover a wide spectrum of health problems inclusive of cardiology.*

Among the most interesting of recent findings from Western longevity researchers are those based on studies in Okinawa, a small island about 430 miles northeast of Taiwan and home of some of the world's oldest and healthiest people. These findings are documented in *The Okinawa Program*, a massive scientific report that details why life expectancy on that small island is so long (Willcox 2001).

More centenarians live in Okinawa than any other place in the world: approximately 350% more than in the United States. The average life expectancy for Okinawan women is 86 years; for men, it is 78 years, a world record (Willcox 2001). It's no accident: Researchers have found young-looking, clean arteries as well as healthy cholesterol, homocysteine, and blood pressure levels in these centenarians (Willcox 2001).

## **The Okinawan Diet: “The Antioxidant Network”**

How do they do it? Perhaps the most important factor is *diet*. Green, leafy vegetables and high-protein foods such as fish are two staples of the Okinawan diet. These essential food groups contain an impressive array of prolongevity nutrients (Willcox 2001).

Nutrition specialists Dr. Lester Packer of the University of California, Berkeley, and Dr. Richard Passwater (1996) of Maryland's Solgar Nutritional Research Center are calling those prolongevity nutrients the “antioxidant network.” This essential network—including vitamin groups, minerals, amino acids, and more—may be very important to longevity, as in-depth research suggests.

## **Amino Acids: The First Network Member**

The amino acid **glutathione** often serves as a warrior in the body's fight against free radicals and oxidative damage (Life Extension Foundation 1999). Glutathione is especially important to the cardiovascular system. Unfortunately, glutathione gets depleted by high levels of the compound homocysteine, which forms naturally during metabolism of another amino acid, methionine (Mayo Clinic 2002). Okinawans are able to control homocysteine levels through their low-fat, low-calorie diet (Willcox 2001).

One study, published in the American Heart Association journal *Circulation*, found that **glutathione** was able to produce a significant response in participants, especially in those people with coronary risk factors. These participants experienced an improvement in vascular function and arterial dilation (Kugiyama 1998). A report from the United Kingdom suggests that depleted glutathione levels are

associated with an increased incidence of vascular cell damage. Take heart, however, as this “can be reduced when glutathione levels are restored” (Powell 2001).

*Cysteine* and *glycine*, found in foods such as fish, also are essential components of the antioxidant network (Willcox 2001). Studies are in their preliminary phases, but researchers from one prestigious East Coast medical school already have found that amino acids can be potent antioxidants. Examining the effects of these amino acids on bovine artery cells, the researchers found that cysteine and glycine are able to regulate oxidation, protect against dangerous free radicals, and boost intracellular levels of glutathione (Parinandi 1999). Researchers from the California Pacific Medical Center Research Institute have also shown that cysteine assists arterial flow and cardiovascular health in animal subjects (Holdefer 1994).

### **What Is Alpha-Lipoic Acid?**

Once thought of as a vitamin, *alpha-lipoic acid* is a critical member of the antioxidant network. Many researchers tout alpha-lipoic acid as a “universal antioxidant” (Passwater 1996). It also is important to maintaining **healthy levels of glutathione** (Hultberg 2002).

According to Dr. Passwater (1996), alpha-lipoic acid has two primary functions: It metabolizes food, and it fights against oxidative damage. Indeed, an Italian study found that an antioxidant formula containing alpha-lipoic acid was able to promote cellular health and scavenge toxins in the bloodstream (Mosca 2002). One of the best sources of alpha-lipoic acid is high-protein foods such as fish, a mainstay of the Okinawan diet (Willcox 2001).

### **Vitamins and Minerals**

*Vitamins* are likewise important antioxidant network members (Willcox 2001). A June 2002 report published in the renowned *Journal of the American Medical Association* provided solid affirmation of their power: Reviewing nearly 40 years of published studies, the researchers wrote of the many important benefits of several vitamin groups. “Inadequate intake of...vitamins,” they concluded, “has been linked to [many of the most prevalent health disorders in the world today]” (Fairfield 2002).

A placebo-controlled Indian study likewise gave a glowing notice for vitamins A, C, and E. Approximately *86% to 91%* of the 175 subjects with cardiovascular problems saw benefits when administered these vitamins. The researchers concluded that “vitamins [A, C, and E] and fruits significantly decrease” low-density lipoprotein (“bad”) cholesterol levels and oxidation in people with cardiovascular problems (Singhal 2001).

Since Okinawans eat a diet rich in green, leafy plants, they also receive the benefits of *selenium* and *zinc*—additional components of the antioxidant network (Willcox 2001). These minerals also may reduce toxins and infections (Girodon 1997).

### **Maintaining Health and Longevity as Okinawan’s Do**

Keeping optimal arterial function is an essential factor in maintaining health and longevity, and antioxidant supplementation may be one of the best ways to do so. But there is a wide array of available antioxidants, all with different specialties and benefits. Thankfully, researchers have discovered an antioxidant network that can maintain arterial health. Its dynamic formula allows you to combine the strengths of the many powerful antioxidants to reap the most fruitful rewards.