



# turmeric

## for cardiovascular disease

**C**ardiovascular disease (CVD) is the number-one killer in the United States. One-third of American adults (more than 71 million people) have one or more types of CVD, including 13.2 million cases of atherosclerosis. In 2003, 37.3 percent of all deaths were caused by CVD, which was “an underlying or contributing cause” for approximately 58 percent of deaths in 2002.

Most people get their cholesterol checked at one time or another and believe excellent cholesterol numbers will protect them against CVD. Unfortunately, this is only one risk factor for CVD, and having excellent cholesterol numbers alone isn't enough.

Other risk factors for atherosclerosis include high triglycerides and chronic inflammation. Fortunately, nature provides many plants with powerful cholesterol-lowering, triglyceride-lowering, and anti-inflammatory actions. One of these is turmeric (*Curcuma longa*).

### » One Potent Spice

Used for centuries in India, China, and Indonesia for food and medicine, turmeric root—which has a rich, yellow color—is found in the Indian spice curry. Traditionally, turmeric has been used to treat a wide range of ailments. It has been and still is applied to wounds and burns topically, and it's taken internally for liver and digestive complaints. This plant has many benefits, including anti-inflammatory, antioxidant, anticancer, liver protective, bile excretion, and cholesterol-lowering actions.

A potent anti-inflammatory, turmeric works in two main ways: It suppresses an enzyme called cyclooxygenase (COX) that creates proinflammatory signals in the body, and it inhibits a gene that enhances production of proinflammatory molecules.

### » For a Healthy Heart

The antioxidants in turmeric also prevent damage to cholesterol, thereby helping to protect against atherosclerosis. In fact, the ability of the antioxidants in turmeric to decrease free radicals is similar to that in vitamins C and E. Since the antioxidant activities of turmeric are not degraded by heat (unlike most vitamins), even using the

spice in cooking provides benefits.

Curcumin, the principle active compound in turmeric, has also been studied for cholesterol-lowering effects. Animal studies show that curcumin lowers both cholesterol and triglycerides, another fat that circulates in the blood stream and is a risk factor for cardiovascular disease.

In a recent study of atherosclerosis, mice were fed a standard American diet, rich in refined carbohydrates and saturated fat, but low in fiber. Some of the mice, however, received this diet plus turmeric mixed in with their food. After four months on these diets, the mice that consumed the turmeric with their food had 20 percent less blockage of the arteries than the mice fed the diet without the turmeric. In another study, rabbits were fed turmeric plus a diet designed to cause atherosclerosis. Several risk factors for the disease were improved, including a decrease in cholesterol, triglycerides, and free-radical damage.

### » Herb-Drug Interactions

There are no known interactions. However, turmeric theoretically might interfere with antiplatelet medications (medications that help prevent harmful blood clotting). If you are taking any medically prescribed drugs, consult a licensed healthcare professional who is knowledgeable in botanical medicine and pharmacology before adding turmeric to your health regimen.

### » Dosage

Turmeric is available in different forms, including whole root, powdered root, and standardized to the amount of curcumin it contains. For the cut root, the recommended dosage is 1.5 to 3 grams per day. To reduce inflammation, take 400 to 600 mg curcumin three times daily.

—John Neustadt, ND

“Curcumin: Getting back to the roots” by S. Shishodia et al., *Ann NY Acad Sci*, 11/05 ● “Curcumin inhibits the classical and the alternate pathways of complement activation” by A. P. Kulkarni et al., *Ann NY Acad Sci*, 11/05 ● “Effect of curcumin on atherosclerosis in apoE/LDLR-double knockout mice” by R. Olszanecki et al., *Journal of Physiology and Pharmacology*, 2005 ● “Heart disease and stroke statistics—2006 update,” American Heart Association, [www.americanheart.org](http://www.americanheart.org) ● “Inflammation: Nutritional, botanical, and mind-body influences” by D. P. Rakel and A. Rindfleisch, *South Med J*, 3/05