Walnuts May Benefit Heart & Brain, Even Fight Cancer

To hear walnut growers tell it, their product is the next best thing to manna from heaven—"A whole food with whole-body benefits." Walnuts are marketed as "an essential food for health," and brightly colored banners on bags boast of their omega-3 fatty acid content.

The US Food and Drug Administration (FDA) helped polish walnuts' healthy halo in 2004 when it okayed a carefully worded health claim: "Supportive but not conclusive research shows that eating 1.5 ounces of walnuts per day, as part of a low saturated fat and low cholesterol diet, and not resulting in increased caloric intake may reduce the risk of coronary heart disease."

Walnut boosters have taken that cautious endorsement and run with it, sometimes overlooking the difficulty of "not resulting in increased caloric intake." After all, 1.5 ounces of walnuts—about 20 halves—contain 278 calories.

And those much-touted omega-3s? The omega-3s found in nuts, flaxseed and other plants—alpha linolenic acid (ALA)—differ from those most associated with health benefits. Those omega-3s—EPA and DHA—are found primarily in fatty fish, and the body's ability to make them from ALA is not very efficient.

Nonetheless, three recent studies suggest there may be more to walnuts' healthy image than just hype.

Researchers at Loma Linda University put walnuts' heart-health promise to the test—and compared the nuts with fish. Sujatha Rajaram, PhD, and colleagues recruited 25 adults with normal to mildly high cholesterol and tested them on three different diets for four weeks each: a control diet with no nuts or fish, a diet adding a moderate amount of walnuts, and a regimen with two servings of salmon per week.

Writing in the American Journal of Clinical Nutrition, the scientists reported that consumption of the walnut diet reduced both total and LDL ("bad") cholesterol levels. Moreover, the ratio of total cholesterol to HDL ("good") cholesterol—a key predictor of heart-disease risk—was lowest in the walnut group. While the fish diet did not show the same cholesterol reductions, it did lower triglycerides.

Two other studies, though calling for caution in interpretation because they involved animals rather than humans, suggest intriguing new benefits for walnuts. In research at Tufts' Jean Mayer USDA Human Nutrition Research Center on Aging led by James Joseph, PhD, the polyphenols and other antioxidants and essential fatty acids in walnuts seemed to give rats' brains a boost.

Aged rats were randomly assigned to eat special chow mixes containing 2%, 6% or 9% walnuts, while a control group got no walnuts. After eight weeks, the animals were given age-sensitive tests of balance, coordination and spatial memory. Rats that consumed the 2% and 6% walnut-enriched chows showed improved motor and cognitive function. The 6% walnut diet would equate to a human eating one ounce of nuts per day.

Rats that ate the 9% walnut diet, however, showed impaired spatial memory, causing the scientists to call consumption of a possible 100 points.

In another study, researchers at Marshall University School of Medicine led by Wanda E. Hardman found that mice had a significantly lower risk of breast cancer when fed the human equivalent of two ounces of walnuts per day. The mice were specifically bred to develop breast cancer; in those fed walnuts, however, the rate of malignancy was cut in half. The walnut-eating mice that did develop cancer showed very slow tumor growth rates.

In a summary presented to the American Association for Cancer Research's annual meeting (see page 1), Hardman and colleagues noted, "Walnuts contain multiple ingredients that, individually, have been shown to slow cancer growth, including omega-3 fatty acids, antioxidants and phytosterols."

All of which suggests there may be something to those "whole-body benefits"—if you remember to substitute walnuts for less-healthy snacks.

Buying & Storing, in a Nutshell
When purchasing whole walnuts, choose ones that feel heavy for their size. Their shells should not be cracked, pierced or stained.

Shelled walnuts are generally available in prepackaged containers as well as bulk bins. Make sure that the bins containing the walnuts are covered. Avoid walnuts that look rubbery or shriveled.

Due to their high polyunsaturated fat content, walnuts are extremely perishable. Shelled walnuts should be stored in an airtight container and placed in the refrigerator, where they will keep for six months, or the freezer, where they will last for one year.

Unshelled walnuts should be stored in the refrigerator or a cool, dry, dark place, where they will stay fresh for up to six months.

To roast walnuts at home, do so gently in a 160-170-degree oven for 15-20 minutes, to preserve the healthy oils.