

DAIRY'S ROLE IN MANAGING BLOOD PRESSURE

Lifestyle changes can be as effective as drug therapy

An estimated 65 million Americans have high blood pressure and an additional 59 million are classified as “pre-hypertensive” putting them at high risk for developing the disease. High blood pressure is a major risk factor for heart disease and stroke.

Studies have shown that adoption of the Dietary Approaches to Stop Hypertension (DASH) eating plan, a low-fat diet rich in dairy foods, fruits and vegetables, has effects similar to single drug therapy in reducing the risk of heart attack and stroke by lowering blood pressure.

The National Heart Lung and Blood Institute recommends that people with high blood pressure, and those who are pre-hypertensive, implement health-promoting lifestyle modifications. These include adopting the DASH eating plan (eating 2-3 servings of dairy products and 8-10 servings of fruits and vegetables), losing extra weight, reducing dietary sodium, engaging in regular physical activity and moderating alcohol consumption to one or two drinks per day based on weight.

- Hypertensive men following a moderate-sodium, high-potassium, high-calcium, low-fat DASH diet including dairy foods reduced their blood pressure significantly more than hypertensive men on a traditional low-fat diet. Nowson CA, et al. Blood pressure change with weight loss is affected by diet type in men. *American Journal of Clinical Nutrition*. 2005; 81:983-989.
- The JNC-7 report established new guidelines for hypertension prevention and management, which include the adoption of lifestyle changes, including the DASH eating plan, for pre-hypertensive individuals. Joint National Committee on Prevention Detection, Evaluation, and Treatment of High Blood Pressure. The seventh report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure. *Journal of the American Medical Association*. 2003; 289:2363-2369.
- Lifestyle changes, such as the DASH diet, may help lower blood pressure and reduce cardiovascular disease risk in people with above-optimal blood pressure, including stage 1 hypertension (120-159 mm Hg systolic and 80-85 mm Hg diastolic). Pickering TG, et al. Effects of Comprehensive Lifestyle Modification on Blood Pressure Control: Main Results of the PREMIER Clinical Trial. *Journal of the American Medical Association*. 2003; 289(16): 2131-2132.
- A research review of laboratory, clinical and population data concluded that increasing dietary calcium intakes may result in reductions in fat mass and blood pressure. Zemel MB. Calcium modulation of hypertension and obesity: mechanisms and implications. *Journal of the American College of Nutrition*. 2001; 20:428S-35S.
- The DASH diet lowered blood pressure in adults with and without hypertension, and lowered blood pressure at all sodium levels, with the greatest reduction seen at the lowest sodium levels. This study included non-fat, reduced-fat and full-fat dairy products. Sacks FM, et al. A clinical trial of the effects on blood pressure of reduced dietary sodium and the DASH dietary pattern (the DASH-Sodium Trial). *New England Journal of Medicine*. 2001; 344:3-10.
- In addition to lowering blood pressure and lipids, the DASH diet lowers blood levels of homocysteine, an amino acid linked to increased coronary heart disease risk. Appel LJ, et al. Effects of dietary patterns on serum homocysteine: Results of a randomized, controlled feeding study. *Circulation*. 2000; 102:852-857.

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