



THE HEART LINKS PROJECT
A MEMBER OF THE NYS HEALTHY HEART COALITION

Fruits and Vegetables: Essential for Your Health

To reduce the risks of cardiovascular diseases and cancers, high intake of fruits and vegetables has been advised by dietary authorities worldwide. The World Health Organization, the American Dietetic Association, the American Heart Association and the National Cancer Institute, to name just a few of the organizations, all recommend eating at least 5 servings of fruits and vegetables daily (excluding potatoes). The “five-a-day” recommendation doesn't mean five servings of fruits and five servings of vegetables, as some Americans may think. Health experts recommend a total of five servings -- comprised of both fruits and vegetables. New evidence presented in the October 6, 1999 issue of the Journal of the American Medical Association (JAMA) may further motivate the consumer to visit the produce market. Eating five to six servings of fruits and vegetables each day may reduce the risk of stroke by more than 30 percent. In the JAMA study, people who had the lowest risk of suffering a stroke were those who ate more cruciferous vegetables (bok choy, broccoli, brussels sprouts, cabbage, collard greens and cauliflower), green leafy vegetables, citrus fruits and citrus juices. The scientific community has not yet clarified what factor(s) is responsible for the decreased risk from these deadly diseases. Antioxidants, which are found in large amounts in fruits and vegetables, have been presumed to exert this preventative effect.

Unfortunately, many people are consuming these antioxidants in supplement form rather than eating fruits and vegetables. This observation is indicated by the enormous growth that the food supplement industry has experienced in the last ten years. According to a recent study, a mere 20 percent of adults in the United States consume this minimum recommended goal of five servings of fruits and vegetables per day. In fact, ten percent of the American population does not consume any fruits or vegetables. Research has also shown that any benefit gained from high antioxidant consumption was due to the intake of a variety of foods abundant in antioxidants. Whether disease prevention can be achieved through supplementation with antioxidants is unclear. Thus, reducing the risks of cardiovascular diseases and cancers may not result just from the actions of antioxidants alone.

The major antioxidants consumed from eating whole foods and that are present in commercially available supplement form, include: beta-carotene, vitamin C and vitamin E. Oxygen, which is in the air we breathe, plays two extremely important functions in our bodies. Oxygen is necessary to sustain life but it also produces substances called prooxidants, which can cause damage to our bodies' cells. Antioxidants, like those mentioned above, defend the cells from the action of prooxidants. Since there is a balance between the formation of prooxidants and their chemical destruction or neutralization by antioxidants, a continuous supply of antioxidants is needed to prevent oxidative damage. Cumulative oxidative damage may be responsible for the initiation of pathological conditions such as cancer and cardiovascular disease.

To give you an idea of how to gauge your fruit and vegetable servings, take a look at what qualifies for a “serving”.

According to the American Dietetic Association, one serving equals:

- 1 cup of raw, green leafy vegetables (spinach, lettuce, etc.)
- 1/2 cup of cooked vegetables (corn, carrots, spinach, and asparagus)
- 1 medium-sized apple, orange or banana
- 1/2 cup chopped fruit

The following are some simple ways to increase your intake to meet the recommendation of 5 servings of fruits and vegetables per day.

- Snacking on raw vegetables instead of potato chips
- Add fresh fruit like sliced banana or berries to cereal or yogurt in the morning.
- Double your vegetable serving at dinner once a week
- Stack sandwiches high with spinach, sprouts, cucumber and tomatoes
- Eat a small tossed salad with your evening meal

The belief that food may help promote good health from considerations beyond its nutritional value is beginning to be accepted by the public and the scientific community alike. Scientists have just recently begun to recognize the importance of a category of chemical substances called phytochemicals. Evidence is growing, which continues to support the hypothesis that ingestion of foods containing large amounts of phytochemicals may expand the role for diet in the prevention and treatment of disease. Some examples of pertinent phytochemicals include the pigment-containing compounds (*e.g.*, the pigment that make blueberries blue) and flavonoids. Over 4000 different flavonoids have already been identified in plants. Many of these flavonoids have more potent antioxidant properties than those of vitamins C and E.

The protective effects of fruits and vegetables have been theorized to be the result of the combined effects of antioxidants and phytochemicals. Supplement consumption will only provide selected components in a concentrated form, not the various essential phytochemicals that occur in food naturally. Consumers are making an error in judgement by substituting supplements for sound nutritional intake. To a large extent, false advertising that misrepresents the role of dietary supplements in a well-rounded, healthy nutritional diet is misleading consumers. A minimum of 5 servings of fruits and vegetables a day is needed to provide the protective effects given by antioxidants and phytochemicals.

To find out more about incorporating more fruits and vegetables into your diet, the following institutions can provide you with additional information:

5 A Day Program

National Cancer Institute

EPN 232

6130 Executive Blvd., MSC 7330

Bethesda, MD 20892-7330

Telephone: 800-4-CANCER

Internet: <http://www.dcpnci.nih.gov/5aday>

FOR A FREE 5 A DAY BROCHURE, Phone: 800-4-CANCER

Produce for Better Health Foundation

1500 Casho Mill Road
Newark, DE 19174-6035
Telephone: 302-738-7100

FDA

Office of Consumer Affairs (HFE-88)
Rockville, MD 20857
Telephone: 800-532-4440
(10 a.m. to 4 p.m. Eastern time, Monday through Friday)

Also check with:

- grocery stores
 - state health departments
- Ask for the 5 A Day coordinator

Dietitians are the most appropriate health care professionals to make recommendations to consumers regarding nutrition-related topics. Dietitians have obtained extensive education and experience. Therefore, when the public has questions related to foods, diet and prevention and treatment of disease, dietetic professionals should be their primary source of information. Have your primary care physician refer you to a registered dietitian or contact the American Dietetic Association if you have any nutrition related questions.

Works Cited

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