



Patient information: Diet and health (Beyond the Basics)

Author

Graham A Colditz, MD, DrPh

Section Editor

Timothy O Lipman, MD

Deputy Editor

Fenny H Lin, MD

HEALTHY DIET OVERVIEW

The food choices we make can have an important impact on our health. However, expert opinions continue to change about which and how much of these foods is optimal.

This topic summarizes the relationships between various foods or supplements and specific health conditions, and concludes with general recommendations for following a healthy diet. A separate topic review is available about diets for weight loss. (See "[Patient information: Weight loss treatments \(Beyond the Basics\)](#)", section on 'Choosing a diet or new eating plan'.)

FRUITS AND VEGETABLES

A number of studies have demonstrated important health benefits of eating fruits and vegetables.

- Increased intake of fruits and vegetables is linked to a lower risk of premature death.
- Fruits and vegetables decrease the risk of cardiovascular diseases including coronary heart disease (CHD) and stroke, including death from CHD [1].
- High intake of fruits and vegetables also reduces the risk of developing certain kinds of cancer (including lung cancer and cancer of the gastrointestinal system). Tomato and tomato-based foods may be beneficial at lowering the risk of prostate cancer.
- At least five servings of fruits and/or vegetables should be eaten daily.

FIBER

Eating a diet that is high in fiber can decrease the risk of coronary heart disease, stroke, colon cancer, and death [2,3]. Eating fiber also protects against type 2 diabetes, and eating soluble fiber (such as that found in vegetables, fruits, and especially legumes) may help control blood sugar in people who already have diabetes. (See "[Patient information: High-fiber diet \(Beyond the Basics\)](#)".)

The recommended amount of dietary fiber is 25 grams per day for women and 38 grams per day for men. Many breakfast cereals, fruits, and vegetables are excellent sources of dietary fiber. By reading the product information panel on the side of the package, it is possible to determine the number of grams of fiber per serving ([figure 1](#)). A list of the fiber content of a number of foods can be found in the table ([table 1](#)).

FAT

Eating foods higher in healthy fats and lower in unhealthy fats can reduce the risk of coronary heart disease.

The type of fat consumed appears to be more important than the amount of total fat. Saturated fats and trans fats should be avoided in favor of monounsaturated and polyunsaturated fats (eg, in fish, olive oil, peanut oil, nuts).

- Trans fats are those that are solid at room temperature, and are found in many margarines and in other fats labeled "partially hydrogenated." Another major source is oils that are maintained at high temperature for a long period, such as in fast food restaurants.
- Saturated fats come mainly from animal products, such as cheese, butter, and red meat.

It is important not to replace fat with refined carbohydrates (eg, white bread, white rice, most sweets). Increases in refined carbohydrate intake may lower levels of high density lipoprotein (HDL) cholesterol (good cholesterol), which actually increases the risk of coronary heart disease.

FOLATE

Folate is a type of B vitamin that is important in the production of red blood cells. Low levels of folate in pregnant women have been linked to a group of birth defects called neural tube defects, which includes spina bifida and anencephaly. Vitamins containing folate and breakfast cereal fortified with folate are recommended as the best ways to ensure adequate folate intake.

However, supplements containing folate (called folic acid) are no longer recommended to reduce the risk of heart disease.

ANTIOXIDANTS

The antioxidant vitamins include vitamins A, C, E, and beta-carotene. Many other foods, especially fruits and vegetables, also have antioxidant properties. Studies have not clearly shown that antioxidant vitamins prevent cancer, and some studies show they may actually cause harm. There is no evidence to support antioxidant vitamin supplementation for individuals who do not have specific vitamin deficiencies.

CALCIUM AND VITAMIN D

Adequate calcium and vitamin D intake are important, particularly in women, to reduce the risk of osteoporosis. A healthcare provider can help to decide if supplements are needed, depending upon a person's dietary intake of calcium and vitamin D ([table 2](#)). Although the optimal level has not been clearly established, experts recommend that premenopausal women and men consume at least 1000 mg per day and postmenopausal women should consume 1200 mg per day. No more than 2000 mg of calcium should be consumed per day. (See "[Patient information: Calcium and vitamin D for bone health \(Beyond the Basics\)](#)".)

The current recommendation is that postmenopausal women with or at risk for osteoporosis consume at least 800 International Units of vitamin D per day. Lower levels of vitamin D are not as effective while high doses can be toxic, especially if taken for long periods of time. Although the optimal intake has not been

