



University of California
Cooperative Extension
Tulare County

Agriculture and Natural Resources



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VITAMIN QUICK FACTS - PART I

Did you know:

- Small amounts of vitamins A, D, E and K are needed to maintain good health.
- Foods that contain vitamins A, D, E and K will not lose their vitamins when cooked.
- The body does not need vitamin A, D, E and K every day and stores them in the liver when not used.

Vitamins are divided into two groups: water-soluble and fat-soluble. Vitamins that need regular replacement in the body are the water soluble vitamins – B-complex vitamins and vitamin C. Since the body stores fat-soluble vitamins – vitamins A, D, E and K, it's not necessary to eat foods with these vitamins daily. Instead, eat foods rich in vitamins A and D three or four times a week.

Some health problems may decrease the absorption of fat and in turn decrease the absorption of vitamins A, D, E and K. Your doctor can advise you accordingly. Foods such as carrots, broccoli, apricots, cantaloupe or fortified cereals and fortified milk contain vitamins A and D. Megadoses (large doses) of vitamins A, D, E and K taken as supplements can lead to toxicity but normal eating will not. Remember, the body only needs small amounts of any vitamin. Major vitamin deficiency symptoms caused by a lack of certain vitamins are rare in the United States but symptoms of mild deficiency can develop without adequate amounts of vitamins in the diet.

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Vitamin A

Vitamin A helps the eyes adjust to light changes such as the transition from outside to inside lighting. Vitamin A also plays an important role in bone growth and tooth development. Skin, eyes and other mucous membranes depend on vitamin A to remain moist. Your body gets vitamin A when you eat a variety of foods. Vitamin A, also called retinol, is supplied primarily by certain foods of animal origin.

However, certain foods of plant origin contain beta-carotene that is converted in the body to vitamin A. Retinol, found in vitamin supplements and fortified foods, can produce toxic effects in the body if you use too much. You cannot consume toxic levels by eating foods. Beta-carotene, comes from fruits and vegetables. Carrots, pumpkin, winter squash, dark green leafy vegetables and apricots contain rich sources of beta-carotene. Beta-carotene supplements are now available but should not be used as a substitute to duplicate the benefits seen from eating foods with beta-carotene. Beta-carotene is an antioxidant. Research indicates that beta-carotene may reduce the risk of cancer, but the recommendation is to eat foods rich in beta-carotene, not take a supplement.

Next week: Vitamins D, E and K will be reviewed.

Source: Fat-soluble Vitamins, Jennifer Anderson, Ph.D., R.D., Food and Nutrition Health Series, no. 9.315 Colorado State University Cooperative Extension.

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