

Vitamins are essential nutrients, organic substances vital to life, indispensable to body function, and needed in minute amounts. Although the body is able to make Vitamins A, D, and K, the body cannot make most vitamins, so they have to be provided through the food we eat. They are classified as water soluble and fat-soluble. All the B-vitamins (B1, B2, B6, B12, Niacin, Folic acid, Pantothenic acid), Vitamin C, and Biotin are water-soluble vitamins. Vitamins A, D, E, and K are fat-soluble. Below is a discussion of each vitamin, its main functions, and the food sources containing the highest amounts of the vitamin.



Vitamin A

Main Functions:

- normal growth and development
- necessary for vision in dim light
- needed for bone growth
- needed by the immune system to fight infection
- necessary for maintenance of mucus membranes

Food sources:

dairy products, egg yolks, liver, fatty fish (such as salmon), dark green leafy and bright orange vegetables (such as carrots)



Vitamin B¹ (Thiamine)

Main Functions:

- essential for carbohydrate metabolism
- essential for nervous system, heart, and muscle function
- essential for normal growth and development

Food sources:

sunflower seeds, watermelon, pork, black beans, green peas, enriched breads/cereals, liver, kidney, brewer's yeast, flour, salmon, wheat germ



Vitamin B² (Riboflavin)

Main Functions:

- required to help release energy from protein, carbohydrate, and fat
- supports healthy skin and vision

Food sources:

eggs, milk, meat, cereal, whole grains, green leafy vegetables



Vitamin B³ (Niacin)

Main Functions:

- maintain normal function of digestive system, nervous system and skin
- helps decrease cholesterol levels
- assists in energy metabolism

Food sources:

cheese, beans, milk, meat, poultry, fish, eggs, whole grains, brewer's yeast, nuts

Vitamin B⁵ (Pantothenic Acid)

Main functions:

- assists in energy metabolism

Food sources:

meat, poultry, whole grain cereals, beans, broccoli

Vitamin B⁶ (Pyridoxine)

Main functions:

- promotes normal brain and nervous system function
- promotes blood cell formation
- maintains chemical balance among body fluids
- assists in carbohydrate, protein and fat metabolism

Food sources:

bananas, carrots, nuts, rice, fish, soybeans, wheat germ, meat

Vitamins and Their Sources



Vitamin B⁹ (Folic Acid)

Main Functions:

- promotes normal red blood cell formation
- helps to maintain the nervous system
- promotes normal growth and development
- prevents neural tube defects in babies

Food sources:

brewer's yeast, liver, fruits, nuts, leafy vegetables, rice, soybeans, wheat



Vitamin B¹² (Cyanocobalamin)

Main Functions:

- promote normal growth and development
- helps form new cells, blood cells, and nerve sheaths

Food sources:

beef, liver, blue cheese, eggs, fish, milk and milk products, poultry, fortified cereals



Biotin

Main Functions:

- helps with energy, and the metabolism of protein and fat

Food sources:

liver, egg yolk, green vegetables



Vitamin C (Ascorbic Acid)

Main Functions:

- promotes connective tissue growth
- helps with wound healing
- assists with protein metabolism
- acts as an antioxidant
- strengthens resistance to infection

Food sources:

citrus fruits and juices, broccoli, tomatoes, melons, strawberries, potatoes, cabbage, dark green leafy vegetables

Vitamin D

Main functions:

- promotes strong bones and teeth
- regulates blood calcium and phosphorus levels

Food sources:

milk, egg yolk, liver, oily fish (such as salmon), fortified cereals, synthesis with sunlight

Vitamin E

Main functions:

- stabilizes cell membranes
- acts as an antioxidant

Food sources:

vegetable oils, whole grains, green leafy vegetables, egg yolks, nuts

Vitamin K

Main functions:

- essential in the formation of blood clotting

Food sources:

green leafy vegetables, liver, milk, cabbage, cauliflower, meat, eggs, fortified cereals

The body requires different amounts of each vitamin because each of them has a different function. People have different requirements also, according to their age, sex, level of activity, and state of health. Certain groups of people may have even higher requirements for specific vitamins such as those suffering from medical conditions, recovering from illness, smokers, athletes, and pregnant females. Occasionally vitamin supplementation may be helpful. The United States Food and Drug Administration (FDA) has set Recommended Dietary Allowances (RDA) for the American public.

CAR Medical and Legal Consulting specializes in medical legal consulting on medical and nursing malpractice, personal injury, toxic tort, domestic violence, worker's compensation, nursing home abuse, products usability, and criminal cases. Joyce Van Dellen is available to consult with, speak to, and write for attorneys, law firms, insurance companies, and hospital risk-management departments.

Route 9 Box 854, Albuquerque, NM, 87105-9601

www.carmedicallegalconsulting.com