

VITAMIN B6

FACTSHEET

Vitamin B6 (pyridoxine) is required for the synthesis of the neurotransmitters serotonin and norepinephrine and for myelin formation. Pyridoxine deficiency in adults principally affects the peripheral nerves, skin, mucous membranes, and the blood cell system. In children, the central nervous system (CNS) is also affected. Deficiency can occur in people with uremia, alcoholism, cirrhosis, hyperthyroidism, malabsorption syndromes, congestive heart failure (CHF), and in those taking certain medications.

Mild deficiency of vitamin B6 is common. Major sources of vitamin B6 include: cereal grains, legumes, vegetables (carrots, spinach, peas), potatoes, milk, cheese, eggs, fish, liver, meat, and flour.

Pyridoxine is frequently used in combination with other B vitamins in vitamin B complex formulations.

Vitamin B6 is a water-soluble vitamin that exists in three major chemical forms: pyridoxine, pyridoxal, and pyridoxamine. It performs a wide variety of functions in your body and is essential for your good health.

Vitamin B6 helps the body:

- Build protein
- Make antibodies, which are key to a strong immune system
- Make hormones
- Make red blood cells and keep nerve tissue healthy
- Process and digest protein

Food Sources of Vitamin B6

Food	Milligrams (mg) per serving	% DV*
Ready-to-eat cereal, 100% fortified, $\frac{3}{4}$ c	2.00	100
Potato, Baked, flesh and skin, 1 medium	0.70	35
Banana, raw, 1 medium	0.68	34
Garbanzo beans, canned, $\frac{1}{2}$ c	0.57	30
Chicken breast, meat only, cooked, $\frac{1}{2}$ breast	0.52	25
Ready-to-eat cereal, 25% fortified, $\frac{3}{4}$ c	0.50	25
Oatmeal, instant, fortified, 1 packet	0.42	20
Pork loin, lean only, cooked, 3 oz	0.42	20
Roast beef, eye of round, lean only, cooked, 3 oz	0.32	15
Trout, rainbow, cooked, 3 oz	0.29	15
Sunflower seeds, kernels, dry roasted, 1 oz	0.23	10
Spinach, frozen, cooked, $\frac{1}{2}$ c	0.14	8
Tomato juice, canned, 6 oz	0.20	10
Avocado, raw, sliced, $\frac{1}{2}$ cup	0.20	10
Salmon, Sockeye, cooked, 3 oz	0.19	10
Tuna, canned in water, drained solids, 3 oz	0.18	10
Wheat bran, crude or unprocessed, $\frac{1}{4}$ c	0.18	10
Peanut butter, smooth, 2 Tbs.	0.15	8
Walnuts, English/Persian, 1 oz	0.15	8
Soybeans, green, boiled, drained, $\frac{1}{2}$ c	0.05	2
Lima beans, frozen, cooked, drained, $\frac{1}{2}$ c	0.10	6

Recommended Dietary Allowance (RDA) for Vitamin B6

Life Stage	Age	Males (mg/day)	Females (mg/day)
Infants	0-6 months	0.1 (AI)	0.1 (AI)
Infants	7-12 months	0.3 (AI)	0.3 (AI)
Children	1-3 years	0.5	0.5
Children	4-8 years	0.6	0.6
Children	9-13 years	1.0	1.0
Adolescents	14-18 years	1.3	1.2
Adults	19-50 years	1.3	1.3
Adults	51 years and older	1.7	1.5
Pregnancy	all ages	-	1.9
Breast-feeding	all ages	-	2.0

Symptoms of Vitamin B6 Deficiency

- autism
- carpal tunnel syndrome
- asthma
- endometriosis
- premenstrual syndrome
- edema
- atherosclerosis
- acne
- attention deficit disorder
- schizophrenia
- clinical depression

References:

National Institutes of Health, (2007, Aug. 24). In Dietary Supplement Fact Sheet: Vitamin B6. Retrieved June 1, 2010, from <http://ods.od.nih.gov/factsheets/vitaminb6/>

Mayo Clinic Staff, (2010). In Vitamin B6. Retrieved June 1, 2010, from http://www.mayoclinic.com/health/vitamin-b6/NS_patient-b6