



## Vitamin B6:

### Why is Vitamin B6 Important?

Vitamin B6, also known as pyridoxine, is another water-soluble vitamin that is essential for many functions in the human body. It is found naturally in foods, added to some, and present in dietary supplements. Vitamin B6 is absorbed in the second section of your small intestine. It is involved in over 100 enzymatic reactions in the human body, mostly reactions associated with protein metabolism.

### What Body Functions is Vitamin B6 Important for?

Energy Production: Vitamin B6, like other B vitamins, is important for metabolizing proteins, fats, carbohydrates, and converting them into usable energy for your body.

Red Blood Cell Formation: Vitamin B6 is important for the production of hemoglobin, a protein in your blood that carries oxygen.

Immune System: Vitamin B6 participates in the production of antibodies and some other immune cells to help regulate immune responses.

Brain Health: Vitamin B6 is involved in the development of your brain during pregnancy and infancy.

Neurotransmitter Synthesis: Vitamin B6 is involved in the production of GABA (gamma-aminobutyric acid), serotonin, and dopamine. These are important for regulating your mood.

### Different Types of Vitamin B6:

Pyridoxal: This form of vitamin B6 isn't an active form until it is converted by your body. It is present in dietary supplements.

Pyridoxamine: This form of vitamin B6 that is found in dietary supplements.

Pyridoxine Hydrochloride: This form of vitamin B6 is the most common form found in dietary supplements.

## Food Sources Vitamin B6 is in:

Plant Sources	mg/Serving
Chickpeas (1 cup)	1.1
Potatoes (1 cup)	0.4
Banana	0.4
Marinara Sauce (1 cup)	0.4
White Rice (1 cup)	0.1
Mixed Nuts (1 ounce)	0.1
Raisins (½ cup)	0.1
Onions (½ cup)	0.1
Spinach (½ cup)	0.1
Watermelon (1 cup)	0.1
Animal Sources	mg/Serving
Beef Liver (3 ounces)	0.9
Yellowfin Tuna (3 ounces)	0.9
Sockeye Salmon (3 ounces)	0.6
Chicken Breast (3 ounces)	0.5
Turkey (3 ounces)	0.4
Ground Beef (3 ounces)	0.3
Cottage Cheese (1 cup)	0.2

## Signs and Causes of Vitamin B6 Deficiency:

Just being deficient in vitamin B6 is uncommon and is usually associated with a deficiency of other B-vitamins. A deficiency can be caused by renal insufficiency, celiac disease, Crohn's disease, ulcerative colitis, and people that have an alcohol use disorder.

Signs and Symptoms: Anemia, dermatitis, swollen tongue, low energy, fatigue, confusion, and weakened immune system.

## Signs and Causes of Vitamin B6 Toxicity:

Adverse effects of excess vitamin B6 consumption through food have not been reported. It is rare to develop a toxicity because of how easily it is excreted; however, consuming large amounts of vitamin B6 containing supplements can cause severe side effects.

Signs and Symptoms: Ataxia (loss of control over bodily movements), photosensitivity, heartburn, and nausea.

## Supplementation of Vitamin B6:

Supplementation of vitamin B6 is important if you are experiencing a deficiency to maintain the functions it is important for.

\*It is important to know that food sources of vitamin B6 should be your main source of vitamin B6, and any supplementation should supplement the vitamin B6 you are already ingesting.

## Daily Recommended Dose of Vitamin B6:

Age	Male	Female	Pregnancy	Lactation
Birth to 6 months	0.1 mg	0.1 mg		
7-12 months	0.3 mg	0.3 mg		
1-3 years	0.5 mg	0.5 mg		
4-8 years	0.6 mg	0.6 mg		
9-13 years	1.0 mg	1.0 mg		
14-18 years	1.3 mg	1.2 mg	1.9 mg	2.0 mg
19-50 years	1.3 mg	1.3 mg	1.9 mg	2.0 mg
51+ years	1.7 mg	1.5 mg		

## References

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