VitaminB6-Consumer

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Vitamin B6  
Fact Sheet for Consumers  
  
This is a general overview. For more in-depth information, see our health professional fact sheet.  
  
What is vitamin B6 and what does it do?  
Vitamin B6 is a vitamin that is naturally present in many foods. The body needs vitamin B6 for more than 100 enzyme reactions involved in metabolism. Vitamin B6 is also involved in brain development during pregnancy and infancy as well as immune function.  
  
How much vitamin B6 do I need?  
The amount of vitamin B6 you need depends on your age. Average daily recommended amounts are listed below in milligrams (mg).  
  
Life Stage Recommended Amount  
Birth to 6 months 0.1 mg  
Infants 7 12 months 0.3 mg  
Children 1 3 years 0.5 mg  
Children 4 8 years 0.6 mg  
Children 9 13 years 1.0 mg  
Teens 14 18 years (boys) 1.3 mg  
Teens 14 18 years (girls) 1.2 mg  
Adults 19 50 years 1.3 mg  
Adults 51+ years (men) 1.7 mg  
Adults 51+ years (women) 1.5 mg  
Pregnant teens and women 1.9 mg  
Breastfeeding teens and women 2.0 mg  
What foods provide vitamin B6?  
Vitamin B6 is found naturally in many foods and is added to other foods. You can get recommended amounts of vitamin B6 by eating a variety of foods, including the following:  
  
Poultry, fish, and organ meats, which are all rich in vitamin B6  
Potatoes and other starchy vegetables, which are some of the major sources of vitamin B6 for Americans  
Fruit (other than citrus), which are also among the major sources of vitamin B6 for Americans  
What kinds of vitamin B6 dietary supplements are available?  
Vitamin B6 is available in dietary supplements, usually in the form of pyridoxine. Most multivitamin/mineral supplements contain vitamin B6. Dietary supplements that contain only vitamin B6, or vitamin B6 with other B vitamins, are also available.  
  
Am I getting enough vitamin B6?  
Most people in the United States get enough vitamin B6 from the foods they eat. However, certain groups of people are more likely than others to have trouble getting enough vitamin B6:  
  
People whose kidneys do not work properly, including people who are on kidney dialysis and those who have had a kidney transplant  
People with autoimmune disorders, which cause their immune system to mistakenly attack their own healthy tissues, for example, people with rheumatoid arthritis, celiac disease, Crohn s disease, ulcerative colitis, or inflammatory bowel disease  
People with alcohol dependence  
What happens if I don t get enough vitamin B6?  
Vitamin B6 deficiency is uncommon in the United States. People who don t get enough vitamin B6 can have a range of symptoms, including anemia, itchy rashes, scaly skin on the lips, cracks at the corners of the mouth, and a swollen tongue. Other symptoms of very low vitamin B6 levels include depression, confusion, and a weak immune system. Infants who do not get enough vitamin B6 can become irritable or develop extremely sensitive hearing or seizures.  
  
What are some effects of vitamin B6 on health?  
Scientists are studying vitamin B6 to understand how it affects health. Here are some examples of what this research has shown.  
  
Cardiovascular disease  
Some scientists had thought that certain B vitamins (such as folic acid, vitamin B12, and vitamin B6) might reduce cardiovascular disease risk by lowering levels of homocysteine, an amino acid in the blood. Although vitamin B supplements do lower blood homocysteine, research shows that they do not actually reduce the risk or severity of heart disease or stroke.  
  
Cancer  
People with low levels of vitamin B6 in the blood might have a higher risk of certain kinds of cancer, such as colorectal cancer. However, studies to date have not shown that vitamin B6 supplements can help prevent cancer or lower the chances of dying from this disease.  
  
Cognitive function  
Some research indicates that elderly people who have higher blood levels of vitamin B6 have better memory. However, taking vitamin B6 supplements (alone or combined with vitamin B12 and/or folic acid) does not seem to improve cognitive function or mood in healthy people or in people with dementia.  
  
Premenstrual syndrome  
Scientists aren t yet certain about the potential benefits of taking vitamin B6 for premenstrual syndrome (PMS). However, some studies show that vitamin B6 supplements could reduce PMS symptoms, including moodiness, irritability, forgetfulness, bloating, and anxiety.  
  
Nausea and vomiting in pregnancy  
At least half of all women experience nausea, vomiting, or both in the first few months of pregnancy. Based on the results of several studies, the American College of Obstetricians and Gynecologists recommends taking vitamin B6 supplements under a doctor s care for nausea and vomiting during pregnancy.  
  
Can vitamin B6 be harmful?  
People almost never get too much vitamin B6 from food or beverages. However, taking high amounts of vitamin B6 from supplements for a year or longer can cause severe nerve damage, leading people to lose control of their bodily movements. The symptoms usually stop when they stop taking the supplements. Other symptoms of too much vitamin B6 include painful, unsightly skin patches, extreme sensitivity to sunlight, nausea, and heartburn.  
  
The daily upper limits for vitamin B6 include intakes from all sources food, beverages, and supplements and are listed below. These levels do not apply to people who are taking vitamin B6 for medical reasons under the care of a doctor.  
  
Life Stage Upper Limit  
Birth to 12 months Not established  
Children 1 3 years 30 mg  
Children 4 8 years 40 mg  
Children 9 13 years 60 mg  
Teens 14 18 years 80 mg  
Adults 100 mg  
Some experts recommend lower limits for vitamin B6. For example, in 2023 the European Food Safety Authority set an upper limit for vitamin B6 of 12 mg per day for all adults, with lower amounts ranging from 2.2 to 10.7 mg per day for infants and children, depending on age.  
  
Does vitamin B6 interact with medications or other dietary supplements?  
Yes, vitamin B6 supplements can interact or interfere with medicines that you take. Here are several examples.  
  
Vitamin B6 supplements might interact with cycloserine (Seromycin), an antibiotic used to treat tuberculosis, and worsen any seizures and nerve cell damage that the drug might cause.  
Taking certain epilepsy drugs could decrease vitamin B6 levels and reduce the drugs ability to control seizures.  
Taking theophylline (Aquaphyllin, Elixophyllin, Theolair, Truxophyllin, and many others) for asthma or another lung disease can reduce vitamin B6 levels and cause seizures.  
Tell your doctor, pharmacist, and other health care providers about any dietary supplements and medicines you take. They can tell you if those dietary supplements might interact or interfere with your prescription or over-the-counter medicines or if the medicines might interfere with how your body absorbs, uses, or breaks down nutrients.  
  
Vitamin B6 and healthful eating  
People should get most of their nutrients from food and beverages, according to the federal government s Dietary Guidelines for Americans. Foods contain vitamins, minerals, dietary fiber and other components that benefit health. In some cases, fortified foods and dietary supplements are useful when it is not possible to meet needs for one or more nutrients (for example, during specific life stages such as pregnancy). For more information about building a healthy dietary pattern, see the Dietary Guidelines for Americansexternal link disclaimer and the U.S. Department of Agriculture s (USDA s) MyPlate.external link disclaimer  
  
Where can I find out more about vitamin B6?  
For general information on vitamin B6  
Office of Dietary Supplements (ODS) Health Professional Fact Sheet on Vitamin B6  
Vitamin B6external link disclaimer, MedlinePlus  
For more information on food sources of vitamin B6  
USDA s FoodData Centralexternal link disclaimer  
Nutrient List for vitamin B6 (listed by food or by vitamin B6 content), USDA  
For more advice on choosing dietary supplements  
ODS Frequently Asked Questions: Which brand(s) of dietary supplements should I purchase?  
For information about building a healthy dietary pattern  
MyPlateexternal link disclaimer  
Dietary Guidelines for Americansexternal link disclaimer  
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