Vitamin B2, also known as riboflavin, is one of the eight B-complex vitamins. Like other B vitamins, it plays a role in energy production in the body, but also has many other important uses.

Riboflavin foods

Vitamin B2 is a water-soluble vitamin that is flushed out of the body daily, so it must be restored each day. The best way to get this vitamin is by eating foods that are rich in riboflavin. Riboflavin is found in eggs, nuts, dairy products, meats, broccoli, brewer's yeast, Brussel sprouts, wheat germ, wild rice, mushrooms, soybeans, green leafy vegetables and whole grain and enriched cereals and bread, according to the University of Maryland Medical Center.
Benefits

Riboflavin is a vitamin that is needed for growth and overall good health. It helps the body break down carbohydrates, proteins and fats to produce energy, and it allows oxygen to be used by the body.

“Riboflavin is also used for the development and function of the skin, lining of the digestive tract, blood cells and other vital organs,” Dr. Sherry Ross, women’s health expert at Providence Saint John’s Health Center in Santa Monica, California, told Live Science.

Vitamin B2 is also important for eye health. According to the University of Michigan, this vitamin is needed to protect glutathione, which is an important antioxidant in the eye. The U.S. National Library of Medicine (NLM) reports that eating a diet rich in riboflavin can lower the risk of developing cataracts. Taking supplements containing riboflavin and niacin may also be helpful in preventing cataracts.

Levels of certain vitamins, chemicals and minerals in the bloodstream seem to be dependent on healthy levels of B2, as well. For example, riboflavin changes vitamin B6 and folate (vitamin B9) into forms that the body can use. According to the American Journal of Clinical Nutrition, riboflavin is important to how the body processes iron. Without it, research shows that the body is more likely to develop anemia. Taking riboflavin can also reduce homocysteine levels in the blood by 26 to 40 percent, according to the NLM.

B2 may be important to pregnancy health, as well. According to a study by the University Women's Hospital, Heidelberg, Germany, riboflavin deficiency may be a factor in causing preeclampsia, a condition that causes high blood pressure in late pregnancy.

Those suffering from migraines may find that taking doses of B2 may help. A study by the department of neurology of Humboldt University of Berlin found that those taking high doses of riboflavin had significantly fewer migraines.

Deficiency and dosage

Deficiency of riboflavin is rare in developed countries because it is a vitamin found in many common foods. Some people are more prone to deficiency than others. “This is more common in people on extreme diets who are underweight or those

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with digestive problems such as celiac disease,” Dr. Kristine Arthur, internist at Orange Coast Memorial Medical Center in Fountain Valley, California, told Live Science. Teens, alcoholics and the elderly are also more susceptible to vitamin B2 deficiency because of poor diet.

Deficiency can cause anemia, sore throat, mouth or lip sores, inflammation of the skin and swelling of soft tissue in the mouth. These symptoms can show up after just a few days of deficiency, according to the American Journal of Clinical Nutrition.

The normal recommended daily allowance (RDA) of riboflavin is dependent on age, gender and reproductive status. “RDA is 1.3 milligrams daily for men and 1.1 mg for women. A higher dose of 3 mg per day can help to prevent cataracts. Higher doses up to 400 mg can be used to treat migraine headaches,” said Arthur. A cup of chopped kale has 0.1 mg, while a hard-boiled egg has 0.3 mg and a glass of whole milk has 0.4 mg, according to the U.S. Department of Agriculture. One cup of whole almonds has 1.4 mg of riboflavin, or 85 percent of the RDA.

As a supplement, riboflavin is usually included in multivitamins and B-complex vitamins. It also is available separately in doses of 25 mg, 50 mg and 100 mg. Relatively nontoxic, riboflavin is considered safe at high doses because excess is disposed of through the urinary tract. There may be some side effects from taking higher doses of B2, though. “Some people notice their urine turning yellow-orange in color and having diarrhea when taken in higher doses,” said Ross.