

Vitamin B9, also known as folate or folic acid, is one of 8 B vitamins. All B vitamins help the body convert carbohydrates into glucose, which is used to produce energy. These B vitamins, often referred to as B-complex vitamins, also help the body use fats and protein. B-complex vitamins are needed for a healthy liver, skin, hair, and eyes. They also help the nervous system function properly. Folate is the naturally occurring form of B9 found in foods, while Folic acid is the synthetic form of B9, found in supplements and fortified foods. All B vitamins are water-soluble, meaning the body does not store them.

Folic acid is crucial for proper brain function and plays an important role in mental and emotional health. It aids in the production of DNA and RNA, the body's genetic material, and is especially important when cells and tissues are growing rapidly, such as in infancy, adolescence, and pregnancy. Folic acid also works closely with vitamin B12 to help make red blood cells and help iron work properly in the body.



Vitamin B9 works with vitamin B12 and other nutrients to control blood levels of the amino acid homocysteine. High levels of homocysteine are associated with heart disease; however, it remains unclear whether homocysteine is a cause of heart disease or just a marker.



Vitamin B9 and B12 deficiency in infants seems to be more common worldwide than previously thought. However, only a few reports based on data from newborn screening programs have drawn attention to that subject. Naturally, infant milk powders and supplemental formulas have been fortified with these two important vitamins. The difficulty comes from making sure that available infant formulas are providing enough of Vitamin B9 and B12. The determination of vitamins B9 and B12 through LC-MS/MS analysis can be a challenge due to their stability under light and matrix complexity. Phospholipids commonly found in milk powder matrices tend to reduce accuracy in measurements and must be removed prior to analysis.

If detection of vitamin B9 and B12 or the removal of phospholipids from complex matrices are of interest to you and your next application, check out these sources:

[Vitamin B9 and B12 Detection in Milk Powder](#)

[Strata™ -X PRO Solid Phase Extraction Product Guide](#)

[Phree™ Phospholipid Removal User Guide](#)

If you had any other questions about this article or the sources listed, please reach out to our [24/7 Technical Support](#).

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