

Folate



Does this test have other names?

Vitamin B-9, folic acid test

What is this test?

This is a blood test to measure the concentration of folate in the liquid part of your blood, called serum, or in your red blood cells. The concentration in the red blood cells will be higher than in the serum.

Folate is the natural form of vitamin B-9 found in:

- Leafy green vegetables, such as spinach, kale, collards, and romaine lettuce
- Citrus fruits and juices
- Dried beans, lentils, and peas
- Yeast
- Liver
- Asparagus
- Broccoli
- Wheat germ

Many cereals, breads, and other grain products are fortified with folic acid, the synthetic version of vitamin B-9.

Folate is needed to make red blood cells. It is also used to repair cells and to make DNA.

It also helps prevent cellular changes that may lead to cancer. Folate is also needed to help a baby's cells multiply during pregnancy. Low levels of folate during pregnancy can lead to brain or spine defects in the fetus. It can also lead to megaloblastic anemia. This is a type of anemia marked by fewer, but larger, red blood cells.

Why do I need this test?

You may need this test to find out the cause of anemia, look at your nutritional status, or keep track of a previous folate deficiency.

If you have anemia, you don't have enough red blood cells to carry oxygen to the cells in your body. A folate deficiency is just 1 cause of anemia. If you don't get enough folate or folic acid from food or vitamins, you may end up with a folate deficiency. Symptoms include:

- Fatigue
- Weakness
- Pale skin, gums, eyes, and nails
- Mouth ulcers and a red, sore tongue
- Irritability
- Shortness of breath

- Weight loss
- Numbness and tingling of fingers and toes
- Forgetfulness
- Fluttering heartbeat (palpitations) or rapid heartbeat
- Confusion
- Dizziness and fainting
- Nausea, vomiting, diarrhea, although these are rare

What other tests might I have along with this test?

Your healthcare provider may also order a vitamin B-12 test. Both folate and B-12 are important for healthy red blood cells. A deficiency in either B-12 or folate can cause anemia.

What do my test results mean?

Test results may vary depending on your age, gender, health history, and other things. Your test results may be different depending on the lab used. They may not mean you have a problem. Ask your healthcare provider what your test results mean for you.

For blood plasma or serum, a normal result ranges from 2.5 to 20 nanograms per milliliter (ng/mL) or 4.5 to 45.3 nanomoles per liter (nmol/L).

For red blood cells, a normal result ranges from 140 to 628 ng/mL or 317 to 1,422 nmol/L.

A test result that's lower than normal means you have a folate deficiency, and your healthcare provider may recommend folic acid supplements. Once you begin taking supplements, the folate deficiency will go away within a few months. Your healthcare provider determines how much of a folic acid supplement you need based on your age and whether you are pregnant or breastfeeding.

Folate is water soluble, so any extra folate leaves your body in urine. But a buildup can sometimes happen during folic acid therapy.

How is this test done?

The test is done with a blood sample. A needle is used to draw blood from a vein in your arm or hand.

Does this test pose any risks?

Having a blood test with a needle carries some risks. These include bleeding, infection, bruising, and feeling lightheaded. When the needle pricks your arm or hand, you may feel a slight sting or pain. Afterward, the site may be sore.

What might affect my test results?

Many factors can contribute to a folate deficiency, including:

- Poor nutrition
- Being a vegetarian or not eating enough fresh vegetables and fortified grains
- Drinking too much alcohol
- Advanced age
- Smoking

- Antiseizure medicines
- Chemotherapy
- Pregnancy
- Birth control pills
- Recent surgery
- Nutrition absorption problems (such as Crohn disease or celiac disease)
- Kidney dialysis

How do I get ready for this test?

You don't need to prepare for this test. Be sure your healthcare provider knows about all medicines, herbs, vitamins, and supplements you are taking. This includes medicines that don't need a prescription and any illegal drugs you may use.

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