

## Education

### Vitamin B12 Test

What is the vitamin B12 test?

This test measures the amount of vitamin B12 in your blood. Your body needs vitamin B12 to make blood cells. Nerve cells and your brain need vitamin B12 to work normally as well.

Why is it done?

This test is done to see if your body is absorbing enough vitamin B12. Vitamin B12 comes from food that you eat or from vitamin supplements. It is absorbed through the last part of your small intestine. It can be absorbed after a protein called intrinsic factor attaches to it. Intrinsic factor is made in your stomach and attaches to vitamin B12 only if there is enough acid in your stomach.

A test for vitamin B12 may be done to help diagnose anemia, to see if the anemia is caused by a lack of vitamin B12.

How do I prepare for this test?

- The vitamin B12 test is often done with a test for folic acid levels. If your folic acid level is also being tested, do not eat or drink anything after midnight before your test.
- Make sure your health care provider knows about any medicines, herbs, or supplements that you are taking. You may need to avoid taking certain medicines before the test because they might affect the test result. Don't stop any of your regular medicines without first talking to your provider about it.
- Talk to your health care provider if you have any questions.

How is the test done?

A small amount of blood is taken from your arm with a needle. The blood is collected in tubes and sent to a lab.

Having this test will take just a few minutes of your time. There is no risk of getting AIDS, hepatitis, or any other blood-borne disease from this test.

How will I get the test result?

Ask your health care provider when and how you will get the result of your test.

What does the test result mean?

The normal vitamin B12 range varies among labs, depending on their testing method. Normal ranges are usually shown next to your results in the lab report.

Your blood level of vitamin B12 may be lower than normal if:

- You do not get enough vitamin B12 from the foods you eat, which is unusual unless you are a vegan vegetarian (which would mean you eat absolutely no animal products).
- You do not have enough acid in your stomach. For example, you may be taking medicines that reduce the amount of acid made by your stomach, such as some medicines taken for ulcers or esophageal reflux.
- Your body is not making intrinsic factor normally. For example, pernicious anemia is a fairly common condition in which your stomach does not have enough acid and also does not make intrinsic factor normally.
- You have had an intestinal illness or intestinal surgery, which makes it hard for your intestines to absorb vitamin B12.

A low blood level of vitamin B12 is called vitamin B12 deficiency.

Your blood level of vitamin B12 may be higher than normal if:

- You have too much vitamin B12 in your diet.
- You have liver disease, such as cirrhosis or hepatitis.
- You have certain other conditions, such as some types of leukemia.

What if my test result is not normal?

Test results are only one part of a larger picture that takes into account your medical history and current health. Sometimes a test needs to be repeated to check the first result. Talk to your health care provider about your result and ask questions.

If your test result is not normal, ask your health care provider:

- if you need additional tests
- what you can do to work toward a normal value
- when you need to be tested again.

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