

What Is Vitamin B12 Deficiency Anemia? “Pernicious Anemia”

Vitamin B12 deficiency anemia is a blood problem that occurs when there is not enough of this vitamin in the body. Vitamin B12 (also called cobalamin) is essential for life. It is needed to make new cells in the body such as [red blood cells](#). Red blood cells travel throughout the body carrying oxygen to the cells and removing wastes. Without enough vitamin B12, your body won't produce enough red blood cells and your cells won't get the oxygen they need. Vitamin B12 is found in meat, fish, eggs, and milk - but not in fruits or vegetables. A normal balanced diet contains enough vitamin B12. Lack of vitamin B12 leads to anemia, and sometimes to other problems like heart attacks and strokes.

Symptoms

Symptoms due to anemia: These are caused by the reduced amount of oxygen in the body.

1. Common symptoms include: tiredness, lethargy, feeling faint, shortness of breath upon exertion.
2. Less common symptoms include: headaches, palpitations (a rapid heartbeat) or chest pain, altered taste and appetite with weight loss, and ringing in the ears (tinnitus).
3. You may look pale.
4. A sore, red tongue or bleeding gums.
5. Diarrhea or constipation.
6. Indigestion and vomiting may occur.

If your [vitamin B12 deficiency anemia](#) is mild, you may not have symptoms or you may not notice them. Symptoms develop slowly over the years.

As the anemia becomes worse, you may have **other symptoms** if left untreated. Problems with nerves can develop. For example: confusion, numbness (tingling of the hands and feet), unsteadiness (difficulty in maintaining balance), loss of memory or poor memory and depression.

Causes of Vitamin B12 Deficiency

Normally, when you eat foods with vitamin B12 the vitamin combines with a protein called intrinsic factor in the stomach. The combined vitamin B12 intrinsic factor is then absorbed into the body further down in the gut. (Intrinsic factor is made by cells in the lining of the stomach and is needed for vitamin B12 to be absorbed.)

1. Pernicious anemia is the common cause of B12 deficiency.
2. Pernicious anemia usually develops over the age of 50. Women are more commonly affected than men, and it tends to run in families.
3. It occurs more commonly in people who have other autoimmune diseases such as thyroid diseases and vitiligo.
4. Strict vegetarians usually have pernicious anemia.
5. Partial or complete gastrectomy (removal of stomach or part of it) in case of cancer or in case of chronic gastritis (inflammation of the stomach wall).

Treatment

[Vitamin B12 deficiency anemia](#) is treated with high-dose supplements of vitamin B12. Once the level of vitamin B12 has returned to normal, your body will produce more red blood cells and the symptoms will go away. However, most people need to take supplements for the rest of their lives to prevent the condition from returning.

1. At first, you will get high-dose shots/injections of vitamin B12 (100 to 1,000 micrograms [μg]). The shots are usually given every day or two for 2 weeks and then once every 1 to 3 months. Or you may take high-dose pills (1,000 to 2,000 μg a day). The injections are needed for life. You should have no side-effects from the treatment as it is simply replacing a vitamin that you need.
2. Often vitamin B12 deficiency anemia is not diagnosed until it is **moderate to severe**. If your anemia is severe, you may need a **blood transfusion**.
3. Your health professional will recheck your vitamin B12 levels in a few months to make sure the treatment is working.
4. Another form of treatment is a vitamin B12 nasal spray (Nascobal). However, the nasal spray is more expensive than shots or pills and is not commonly used.

Prevention

1. You can take steps at home to improve your health by eating a varied diet that includes meat, milk and milk products, cheese, chicken, turkey, and eggs, which are good sources of vitamin B12.
2. Also eat plenty of foods that contain **follic acid (folate)**, another type of B vitamin. These include leafy green vegetables, citrus fruits, and fortified cereals.
3. You should not drink alcohol while you are being treated for a vitamin B12 deficiency. Alcohol interferes with the body's ability to absorb this vitamin.
4. If your blood is also low in iron, you may need to take iron supplements.

Follow up

1. The symptoms of anemia usually improve quickly once treatment has begun. You may be advised to have a blood test every year or so. This will check that the anemia is being treated successfully.
2. A blood test may also be done to see that your thyroid gland is working well. (Thyroid problems are more common in people with pernicious anemia.)
3. If you have pernicious anemia, you have an increased chance of developing cancer of the stomach. It is about three times the normal chance (even when the anemia is treated). See a doctor soon if you develop any stomach symptoms such as regular indigestion or stomach pain.