

# ANEMIA, PERNICIOUS

(Vitamin B-12 Deficiency)

NOLENSVILLE FAMILY MEDICINE

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## BASIC INFORMATION

### DESCRIPTION

An anemia that results from the failure of the digestive tract to absorb vitamin B-12. Vitamin B-12 (also called cobalamin) is needed for making red blood cells and keeping the nervous system functioning. This type of anemia usually affects adults of both sexes, between ages 40 and 70.

### FREQUENT SIGNS AND SYMPTOMS

- Symptoms develop slowly. It may take time to notice.
- Weakness, especially in the arms and legs.
- Sore tongue.
- Nausea, appetite loss, and weight loss.
- Numbness or tingling in the hands and feet.
- Difficulty maintaining proper balance.
- Pale lips, tongue, and gums.
- Yellow eyes and skin.
- Bleeding gums.
- Shortness of breath.
- Depression, confusion, poor memory, and dementia.
- Headache.
- Ringing in the ears (tinnitus).

### CAUSES

- Pernicious anemia is due to a lack of intrinsic factor. This is a substance made by cells in the stomach that makes it possible to absorb vitamin B-12. The reason for the lack of intrinsic factor is unknown. It may be an autoimmune reaction, a genetic factor, or both.
- Other vitamin B-12 deficiency-caused anemia may be due to a variety of factors.

### RISK INCREASES WITH

- Stomach surgery, stomach cancer, or gastritis.
- Diabetes and autoimmune disorders.
- Myxedema, Graves' disease, other thyroid disorders.
- Genetic factors, such as in people of Northern European ancestry. It is rare in blacks and Asians.
- Family history of pernicious anemia.
- Age over 40.
- Strict vegetarian diet or infants breast-fed by a mother on a strict vegetarian diet.
- Lack of stomach acid in older adults.
- Parasitic infections and intestinal diseases.
- Drugs such as H2 blockers, proton pump inhibitors, colchicine, neomycin, and aminosalicic acid.
- Alcoholism.

### PREVENTIVE MEASURES

Pernicious anemia cannot be prevented. In other anemias, avoiding risk factors, where possible, may help.

### EXPECTED OUTCOMES

- For pernicious anemia, lifelong vitamin B-12 therapy will help symptoms and prevent complications.

- For vitamin B-12 deficiency-caused anemia, vitamin B-12 therapy or diet changes can prevent deficiency.

### POSSIBLE COMPLICATIONS

- Congestive heart failure.
- Nerve damage that cannot be reversed.
- Gastric cancer.



## DIAGNOSIS & TREATMENT

### GENERAL MEASURES

- Your health care provider will do a physical exam and ask questions about your symptoms and your diet. Medical tests include blood tests for vitamin B-12 levels, to check for antibodies to the intrinsic factor, and to measure the body's ability to absorb vitamin B-12.
- Treatment usually involves vitamin B-12 replacement. Lifetime treatment is needed for pernicious anemia. Some symptoms should start to clear up in a few days after treatment begins, while others may take several months.
- Any underlying disorder (such as thyroid problems) will be treated also.
- Stop drinking if alcoholism led to the vitamin B-12 deficiency.

### MEDICATIONS

- Vitamin B-12 replacement will be prescribed. Some patients are given injections (they can be self-administered). For other patients (or in addition to injections), the vitamin may be taken by mouth or as a nasal gel.
- Iron supplements may be prescribed.
- Avoid taking high amounts of folic acid. It can mask the signs of vitamin B-12 deficiency.

### ACTIVITY

Activity may be limited until symptoms improve.

### DIET

- Eat a well-balanced diet.
- People on strict vegetarian diets can change the diet or take vitamin B-12 supplements for life.



## NOTIFY OUR OFFICE IF

- You or a family member has symptoms of pernicious anemia.
- Symptoms don't start to improve with treatment.

Special notes:

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More notes on the back of this page