TEST

Antiparietal cell antibody test

A blood test that looks for antibodies against acid-producing stomach cells.

WHAT IT MEASURES
Antibodies against acid-producing cells in the stomach

SAMPLE
Blood

FASTING NEEDED?
No

HOW LONG IT TAKES
About five minutes for the blood draw

RESULTS IN
Usually several days, varying by laboratory

USED FOR
Supporting diagnosis of autoimmune gastritis and pernicious anemia

MAIN LIMITATION
Positive results do not prove autoimmune gastritis

Overview

The antiparietal cell antibody test is a blood test used when autoimmune gastritis is suspected. This condition occurs when the immune system mistakenly attacks parietal cells in the stomach lining. These cells make stomach acid and help the body absorb vitamin B12.

The test detects antibodies against proteins in parietal cells, especially hydrogen-potassium ATPase. Damage to these cells can reduce stomach acid and intrinsic factor, a protein needed to absorb vitamin B12. Over time, this may cause vitamin B12 deficiency and pernicious anemia.

A parietal cell antibody result cannot confirm or rule out autoimmune gastritis by itself. It must be considered with your symptoms, medical history, blood count, vitamin levels, and sometimes other blood tests or a stomach biopsy.

Why the test is ordered

Your clinician may order the test when symptoms or blood results suggest vitamin B12

deficiency, pernicious anemia, or autoimmune gastritis.

Reasons include:

Iron deficiency may develop before vitamin B12 deficiency because reduced stomach acid can make iron harder to absorb.

The test may be included in an antibody panel. It is not usually used to screen people who have no symptoms, abnormal blood results, or other reason to suspect autoimmune gastritis.

- Low vitamin B12 without a clear dietary or medicine-related cause
- Enlarged red blood cells or unexplained anemia
- Ongoing or unexplained iron deficiency
- Numbness, tingling, balance problems, or other possible B12-related symptoms
- Continuing suspicion after a negative intrinsic factor antibody test
- Evidence of inflammation or thinning of the stomach lining

Who should have the test

The test may be useful when autoimmune gastritis is suspected but more evidence is needed. An intrinsic factor antibody test may be done first because a positive result is more specific for pernicious anemia. Parietal cell antibody testing can help when that result is negative but suspicion remains.

Autoimmune gastritis is associated with other autoimmune conditions, including autoimmune thyroid disease and type 1 diabetes. Having one of these conditions does not automatically mean you need this test.

Testing should be based on the whole clinical picture and should not replace checks for vitamin B12, a complete blood count, iron levels, or other causes of your symptoms.

How to prepare

You do not need to fast. You can usually eat, drink water, and take your regular medicines.

Tell the person arranging the test about prescription and non-prescription medicines, supplements, recent blood products, and treatments that affect the immune system. Do not stop any medicine unless the clinician who prescribed it tells you to.

Other blood tests collected at the same time may have separate instructions. For example, you may need to fast for an unrelated glucose or cholesterol test.

What happens during the test

A healthcare professional inserts a small needle into a vein, usually inside your elbow or on the back of your hand. A small amount of blood is collected into a tube.

The blood draw usually takes about five minutes. You can normally leave immediately and return to your usual activities.

The laboratory tests the serum, the clear liquid part of blood. Results may be reported as positive or negative, sometimes with a numerical level or antibody titer.

Understanding your results

A positive result means parietal cell antibodies were detected. This supports the possibility of autoimmune gastritis but does not prove it. These antibodies can occur with other autoimmune conditions and in some people without identifiable stomach disease.

A negative result means antibodies were not detected above the laboratory's cutoff. It does not fully rule out autoimmune gastritis or pernicious anemia. Some affected people never have detectable antibodies, and levels may fall in later disease as parietal cells are lost.

A borderline result may be repeated or considered with tests such as:

Cutoffs vary by laboratory and testing method. Interpretation can also depend on your age, medicines, pregnancy status, and clinical circumstances. Use the range on your own laboratory report.

- Intrinsic factor antibodies
- Vitamin B12 and folate
- Methylmalonic acid
- A complete blood count
- Ferritin and other iron tests
- Gastrin or pepsinogen
- Gastroscopy with stomach biopsies

What affects the results

The stage of autoimmune gastritis can affect results. Antibodies may appear before advanced stomach damage but become less detectable later, so a negative result can be misleading in

established disease.

Age, other autoimmune conditions, and differences between laboratory methods can also affect interpretation. A low positive result using one method may not be classified the same way by another.

Vitamin B12 tablets or injections do not usually remove parietal cell antibodies, although treatment can improve vitamin levels and blood counts.

Intravenous immunoglobulin may interfere with antibody testing, and immune-suppressing medicines may affect antibody production. Report these treatments, as well as recent transfusions or plasma products. Transfusions may also affect related tests such as the blood count.

Fasting, coffee, time of day, and ordinary exercise are not known to have an important effect. An unsuitable or badly hemolyzed sample may need to be collected again.

Accuracy and limitations

There is no single reliable accuracy percentage. Performance varies with the population tested, disease stage, laboratory method, and how autoimmune gastritis was confirmed.

The test can miss the condition when antibodies are below the laboratory cutoff or have declined in later disease. It can also be positive when autoimmune gastritis is absent because these antibodies are not unique to one condition.

Intrinsic factor antibodies are generally stronger evidence of pernicious anemia when positive, but they also miss some affected people. Using both antibody tests with vitamin B12 studies and a blood count is often more informative than using either alone.

When stomach-lining damage needs confirmation, gastroscopy with biopsies is more definitive. This involves passing a flexible camera into the stomach and taking small tissue samples.

Risks and complications

The risks are those of a routine blood draw. You may have brief discomfort, a small bruise, or feel lightheaded. Serious complications are uncommon.

What happens next

A positive result usually leads to routine follow-up rather than emergency treatment. Your clinician may review your vitamin B12 level, blood count, iron status, symptoms, medicines, diet, and related antibody tests.

If findings suggest autoimmune gastritis, further assessment may include gastroscopy and biopsies. Vitamin B12 or iron deficiency can be treated before every investigation is complete if delaying treatment could be harmful.

A negative result may end the investigation if other findings are reassuring. If suspicion remains, your clinician may use intrinsic factor antibodies, methylmalonic acid, gastrin, pepsinogen, or gastroscopy.

Contact a healthcare professional promptly if you develop worsening numbness, weakness, difficulty walking, severe tiredness, or increasing breathlessness. Seek emergency help for chest pain, fainting, severe breathing difficulty, sudden one-sided weakness, or trouble speaking. These symptoms need urgent assessment regardless of your antibody result.

Common questions

Can I drink coffee before the test?

Yes. Coffee does not usually affect the test. Follow separate instructions if other fasting blood tests are being collected.

Does the time of day matter?

No. The test does not normally need to be collected at a particular time.

Can I exercise beforehand?

Ordinary exercise is not expected to change the result. Consider resting before the blood draw if exercise makes you dehydrated or lightheaded.

Should I stop vitamin B12 supplements first?

Usually not. Supplements can affect vitamin B12 levels and related tests but do not normally remove parietal cell antibodies. Tell your clinician what you take and when you last took it.

Does a positive result mean I have pernicious anemia?

No. It is supporting evidence, not a diagnosis. Your clinician will consider it with vitamin B12 tests, your blood count, symptoms, and sometimes stomach investigations.

Can the test be negative even if I have autoimmune gastritis?

Yes. Antibody levels may be low or decline in later disease. Further testing may be appropriate if other findings still suggest autoimmune gastritis.

Sources

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