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WBC count

A WBC count is a test to measure the number of white blood cells (WBCs) in the blood.

WBCs help fight infections. They are also called leukocytes. There are five major types of white blood cells [[./003657.htm](#)]:

- Basophils
- Eosinophils [[./003649.htm](#)]
- Lymphocytes (T cells and B cells)
- Monocytes
- Neutrophils

How the Test is Performed

Most of the time, blood is typically drawn from a vein located on the inside of the elbow or the back of the hand.

In infants or young children, a sharp tool called a lancet may be used to puncture the skin. The blood collects in a small glass tube called a pipette, or onto a slide or test strip. A bandage is put over the spot to stop any bleeding.

How to Prepare for the Test

Most of the time, you do not need to take special steps before this test. Tell your doctor the medicines you are taking, including ones you buy without a prescription. Some drugs may change the test results.

How the Test will Feel

You may feel slight pain or a sting when the needle is inserted. You may also feel some throbbing at the site after the blood is drawn.

Why the Test is Performed

You will have this test to find out how many WBCs you have. Your body produces more WBCs when you have an infection or allergic reaction. You can also have more WBCs when you are under stress.

Normal Results

The normal number of WBCs in the blood is 4,500-10,000 white blood cells per microliter (mcL).

Normal value ranges may vary slightly among different labs. Some laboratories use different measurements or may test different specimens. Talk to your doctor about your test results.

The examples above show the common measurements for results for these tests.

What Abnormal Results Mean

LOW WHITE BLOOD CELL (WBC) COUNT

A low number of WBCs is called leukopenia. A WBC count below 4500 is below normal

One type of white blood cell is the neutrophil. This type of white blood cell is important for fighting infections.

- An adult with who has fewer than 1700 neutrophils in a microliter of blood has a low white blood cell count.
- If there are fewer than 500 neutrophils in a microliter of blood, the risk for infection becomes even higher.

It may be due to:

- Bone marrow deficiency or failure (for example, due to infection, tumor, or abnormal scarring)
- Cancer treating drugs, or other medicines (see list below)
- Certain autoimmune disorders such as lupus
- Disease of the liver or spleen
- Radiation treatment for cancer
- Certain viral illnesses, such as Mono
- Cancers that damage the bone marrow
- Very severe bacterial infections

HIGH WHITE BLOOD CELL COUNT

- A high number of WBCs is called leukocytosis. It may be due to:
- Anemia
- Certain drugs or medications (see list below)
- Cigarette smoking
- Infections, most often those caused by bacteria
- Inflammatory disease (such as rheumatoid arthritis or allergy)
- Leukemia
- Severe mental or physical stress
- Tissue damage (for example, burns)

There may also be other less common reasons for this result. .

Drugs that may lower your WBC count include:

- Antibiotics
- Anticonvulsants
- Anti thyroid drugs
- Arsenicals
- Captopril
- Chemotherapy drugs
- Chlorpromazine
- Clozapine
- Diuretics
- Histamine-2 blockers
- Sulfonamides
- Quinidine
- Terbinafine
- Ticlopidine

Drugs that may increase WBC counts include:

- Beta adrenergic agonists (for example albuterol)
- Corticosteroids

- Epinephrine
- Granulocyte colony stimulating factor
- Heparin
- Lithium

Risks

There is very little risk involved with having your blood taken.

Considerations

People who have had their spleen removed (splenectomy [./002944.htm]) will always have a slightly higher number of WBCs.

Alternative Names

Leukocyte count; White blood cell count

References

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