



[Home](#) → [Medical Encyclopedia](#) → ELISA blood test

URL of this page: [//medlineplus.gov/ency/article/003332.htm](https://medlineplus.gov/ency/article/003332.htm)

## ELISA blood test

ELISA stands for enzyme-linked immunoassay. It is a commonly used laboratory test to detect antibodies in the blood. An antibody is a protein produced by the body's immune system when it detects foreign or potentially harmful substances, called antigens.

### How the Test is Performed

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

The sample is sent to a laboratory where the targeted antibody or antigen is linked to a specific enzyme. If the target substance is in the sample, the test solution turns a different color.

### How to Prepare for the Test

No special preparation is needed.

### How the Test will Feel

When the needle is inserted to draw blood, some people feel moderate pain. Others feel only a prick or stinging. Afterward, there may be some throbbing or a slight bruise. This soon goes away.

### Why the Test is Performed

This test is often used to see if you have been exposed to bacteria, viruses or other agents that cause infection. It is also used to screen for current or past infections. It is also used to test for some disorders of the immune system.

### Normal Results

Normal values depend on the type of substance being identified. Some laboratories use different measurements or test different samples. Normal value ranges may vary slightly among different laboratories. Talk to your health care provider about the meaning of your specific test results.

### What Abnormal Results Mean

Abnormal values depend on the type of substance being identified. In some people, a positive result may be normal.

## Risks

There is little risk involved with having your blood taken. Veins and arteries vary in size from one person to another, and from one side of the body to the other. Taking blood from some people may be more difficult than from others.

Other risks associated with having blood drawn are slight, but may include:

- Excessive bleeding
- Fainting or feeling lightheaded
- Multiple punctures to locate veins
- Hematoma (blood accumulating under the skin)
- Infection (a slight risk any time the skin is broken)

## Alternative Names

Enzyme-linked immunoassay; EIA

## References

Aoyagi K, Ashihara Y, Kasahara Y. Immunoassay and immunochemistry. In: McPherson RA, Pincus MR, eds. *Henry's Clinical Diagnosis and Management by Laboratory Methods*. 24th ed. Philadelphia, PA: Elsevier; 2022:chap 45.

Patel R. The clinician and the microbiology laboratory: test ordering, specimen collection, and result interpretation. In: Bennett JE, Dolin R, Blaser MJ, eds. *Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases*. 9th ed. Philadelphia, PA: Elsevier; 2020:chap 16.

## Review Date 10/9/2024

Updated by: Linda J. Vorvick, MD, Clinical Professor, Department of Family Medicine, UW Medicine, School of Medicine, University of Washington, Seattle, WA. Also reviewed by David C. Dugdale, MD, Medical Director, Brenda Conaway, Editorial Director, and the A.D.A.M. Editorial team.

**Learn how to cite this page**



Health Content  
Provider  
06/01/2028

A.D.A.M., Inc. is accredited by [URAC](http://www.urac.org), for Health Content Provider ([www.urac.org](http://www.urac.org)). URAC's [accreditation program](#) is an independent audit to verify that A.D.A.M. follows rigorous standards of quality and accountability. A.D.A.M. is among the first to achieve this important distinction for online health information and services. Learn more about A.D.A.M.'s [editorial policy](#), [editorial process](#), and [privacy policy](#).

The information provided herein should not be used during any medical emergency or for the diagnosis or treatment of any medical condition. A licensed medical professional should be consulted for diagnosis and treatment of any and all medical conditions. Links to other sites are provided for information only – they do not constitute endorsements of those other sites. No warranty of any kind, either expressed or implied, is made as to the accuracy, reliability, timeliness, or correctness of any translations made by a third-party service of the information provided herein into any other language. © 1997-2025 A.D.A.M., a business unit of Ebix, Inc. Any duplication or distribution of the information contained herein is strictly prohibited.

---

National Library of Medicine 8600 Rockville Pike, Bethesda, MD 20894 U.S. Department of Health and Human Services

National Institutes of Health