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Blood culture

A blood culture is a laboratory test to check for bacteria or other germs in a blood sample.

How the Test is Performed

A blood sample is needed.

The site where blood will be drawn is first cleaned with an antiseptic such as chlorhexidine. This reduces the chance of an organism from the skin getting into (contaminating) the blood sample and causing a false-positive result (see below).

The sample is sent to a laboratory. There, it is placed in a special dish (culture). It is then watched to see if bacteria or other disease-causing germs grow. A Gram stain may also be done. A Gram stain is a method of identifying bacteria using a special series of chemical stains (colors). With some infections, bacteria can be found in the blood only intermittently. So, a series of three or more blood cultures may be done to increase the chance of finding the infection.

How to Prepare for the Test

There is no special preparation.

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

Your health care provider may order this test if you have symptoms of a serious infection, also known as sepsis. Symptoms of sepsis can include high fever, chills, rapid breathing and heart rate, confusion, and low blood pressure.

The blood culture helps identify the type of bacteria causing the infection. This helps your provider determine how best to treat the infection.

Normal Results

A normal value means that no bacteria or other germs were seen in your blood sample.

What Abnormal Results Mean

An abnormal (positive) result means that germs were identified in your blood. If the germs are bacteria, the medical term for this is bacteremia. This can cause sepsis. Sepsis is a medical emergency and you will be admitted to a hospital for treatment.

Other types of germs, such as a fungus or a virus, may also be found in a blood culture.

Sometimes, an abnormal result can be due to contamination. This means bacteria may be found, but it came from your skin or from the lab equipment, instead of your blood. This is called a false-positive result. It means you do not have a true infection.

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

Culture - blood

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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.

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