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Cerebrospinal fluid (CSF) culture

A cerebrospinal fluid (CSF) culture is a lab test to look for bacteria, fungi, and viruses in the fluid that moves in the space around the spinal cord. CSF protects the brain and spinal cord from injury.

How the Test is Performed

A sample of CSF is needed. This is usually done with a lumbar puncture (also known as a spinal tap).

The sample is sent to the lab. There, it is placed in a dish that has a special substance called a culture medium. Lab staff then observe if bacteria, fungi, or viruses grow in the dish. Growth means there is an infection.

How to Prepare for the Test

Follow instructions on how to prepare for a spinal tap.

Why the Test is Performed

Your health care provider may order this test if you have signs of an infection that affects the brain or nervous system. The test helps identify what is causing the infection. This will help your provider decide on the best treatment.

Normal Results

A normal result means no bacteria, viruses, or fungi grew in the lab dish. This is called a negative result. However, a normal result doesn't mean there is no infection. The spinal tap and CSF smear may need to be done again.

What Abnormal Results Mean

Bacteria or other germs found in the sample may be a sign of meningitis. This is an infection of the membranes covering the brain and spinal cord. The infection can be caused by bacteria, fungi, or viruses.

Risks

A lab culture poses no risk to you. Your provider will tell you about the risks of a spinal tap.

Alternative Names

Culture - CSF; Spinal fluid culture; CSF culture

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Updated by: Jatin M. Vyas, MD, PhD, Professor in Medicine, Harvard Medical School; Associate in Medicine, Division of Infectious Disease, Department of Medicine, Massachusetts General Hospital, Boston, MA. 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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