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CSF glucose test

A CSF glucose test measures the amount of sugar (glucose) in the cerebrospinal fluid (CSF). CSF is a clear fluid that flows in the space surrounding the spinal cord and brain.

How the Test is Performed

A sample of CSF is needed. A lumbar puncture, also called a spinal tap, is the most common way to collect this sample.

Other methods for collecting CSF are rarely used, but may be recommended in some cases. They include:

- Cisternal puncture
- Ventricular puncture
- Removal of CSF from a tube that is already in the CSF, such as a shunt or ventricular drain

The sample is sent to a laboratory for testing.

Why the Test is Performed

This test may be done to diagnose:

- Tumors
- Infections
- Inflammation of the central nervous system
- Delirium
- Other neurological and medical conditions

Normal Results

The glucose level in the CSF should be 50 to 80 mg/100 mL or 2.77 to 4.44 mmol/L (or greater than 2/3 of the blood sugar level).

Note: Normal value ranges may vary slightly among different laboratories. Talk to your health care provider about the meaning of your specific test results. Results can also be affected by your serum glucose level, especially if levels are extreme.

The examples above show the common measurements for results for these tests. Some laboratories use different measurements or may test different specimens.

What Abnormal Results Mean

Abnormal results include higher and lower glucose levels. Abnormal results may be due to:

- High blood sugar (hyperglycemia)
- Infection (bacterial or fungus)
- Inflammation of the central nervous system
- Tumor

Alternative Names

Glucose test - CSF; Cerebrospinal fluid glucose test

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Updated by: Joseph V. Campellone, MD, Department of Neurology, Cooper Medical School of Rowan University, Camden, NJ. Review provided by VeriMed Healthcare Network. 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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