

Cerebrospinal fluid examination

Cerebrospinal fluid testing is one of the basic methods that contribute to the diagnosis of neurological diseases. The cerebrospinal fluid is most often collected by lumbar puncture (3×5 ml, between L4–L5 or S1), the suboccipital approach is less common. The cerebrospinal fluid needs to be transported to the laboratory as quickly as possible, as the cells gradually break down, the glucose concentration decreases and the lactate increases.

 For more information see *Biochemical examination of cerebrospinal fluid*.

The basic examination of cerebrospinal fluid includes the performance of these analyzes

- assessment of the appearance of cerebrospinal fluid,
- quantitative determination of total protein,
- quantitative determination of lactate,
- qualitative and quantitative cytological examination,
- cerebrospinal fluid spectrophotometry.

 For more information see *Cerebrospinal fluid spectrophotometry*.

Further examination of cerebrospinal fluid includes these determinations

- determination of IgG, IgA, IgM, albumin in plasma and cerebrospinal fluid with estimation of intrathecal immunoglobulin synthesis and determination of blood-brain barrier disorder,
- isoelectric focusing for the detection of IgG oligoclonal bands,
- some other tests (e.g. determination of other proteins in cerebrospinal fluid and serum, specially stained cytological preparations).

 For more information see *Proteins in cerebrospinal fluid*.

Cerebrospinal fluid is mainly examined in these diseases

- suspected acute neuroinfection,
- suspected subarachnoid hemorrhage,
- demyelinating disease,
- malignant infiltration of meninges.

Contraindications to consumption

- finding of intracranial expansion process,
- Intracranial hypertension,
- local infection at the puncture site,
- some coagulopathies,
- we take 1–2 ml separately due to artificial blood contamination.

Links

Related articles

- Biochemical examination of cerebrospinal fluid
- Proteins in cerebrospinal fluid
- Cerebrospinal fluid spectrophotometry
- Cytological cerebrospinal fluid examination
- Cerebrospinal fluid syndroms

External links

Lumbar puncture – instructional video (<https://www.youtube.com/watch?v=jp0qYCe20Co&feature=related%7C>)

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