

- Device for mapping CSF dynamics
- Objective, standardized and fully automated analyses
- Support in NPH diagnosis
- Shunt function analysis



# Tools for assessing cerebrospinal fluid dynamics

The Likvor instrument is especially designed for mapping the cerebrospinal fluid (CSF) dynamics. The instrument is objective and analyses are standardized. Patient safety is high, and although the instrument is technically advanced, it is easy to use. It is the first commercially available instrument for mapping CSF dynamics.

## Easily assessable technology for CSF dynamics

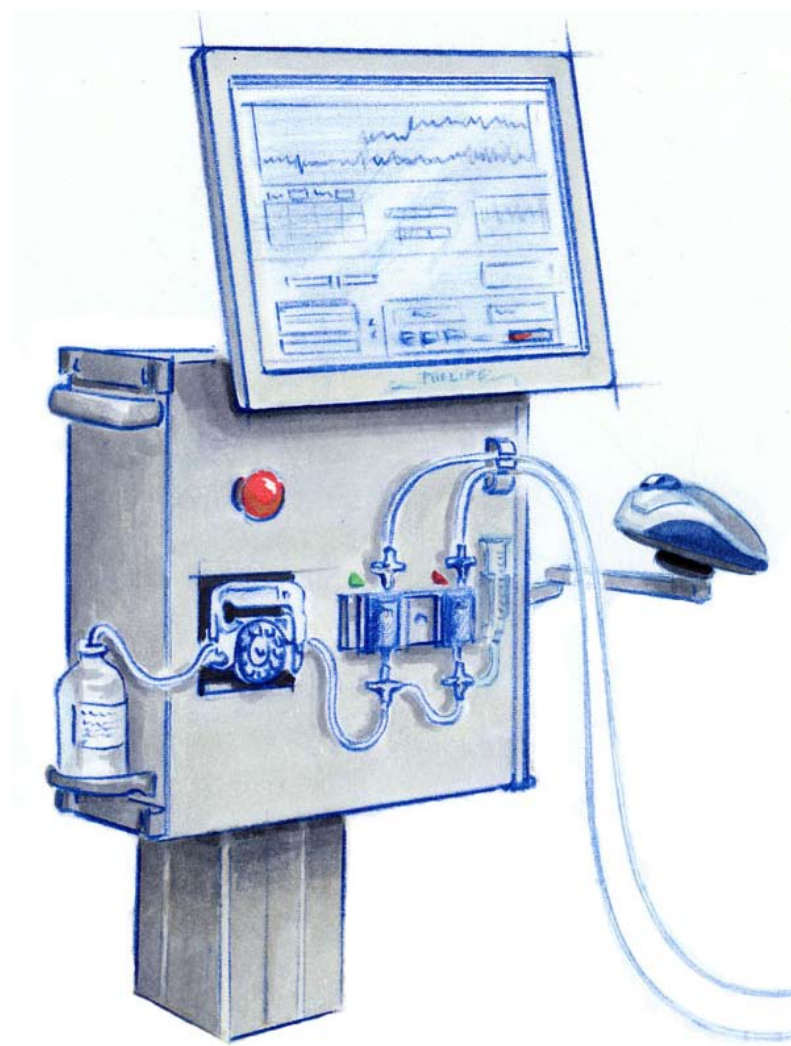
The Likvor instrument is especially designed for assessing the CSF dynamics of each patient. Regulating the pressure in the CSF to several different levels, the absorption can be estimated in a rigorous way, including descriptive statistical parameters. The examination takes approximately one hour. In addition to the recommended constant pressure method, there are six automated and five manual protocols, including draining test, constant infusion and bolus algorithms, to allow for a diversity of examinations to be made. All data analyses are performed in real time. Estimated parameters are presented on screen during the examination and in a written report as soon as the examination is finished.

## Current application focus

### Support in iNPH diagnoses

When idiopathic Normal Pressure Hydrocephalus (iNPH) is suspected, a Likvor examination is performed by using appropriate automated protocol to start the examination investigation. The Likvor instrument estimates the rate of re-absorption of cerebrospinal fluid into the blood, and if the absorption is abnormal, the patient is likely to improve from shunt surgery.

*The instrument is a result from over 30 years of research at Umeå University and the University hospital in Umeå. Today there are prototypes in clinical use at hospitals in Scandinavia, and the instrument will be commercially available in 2009.*



### Shunt function analysis

The Likvor instrument is invaluable in the investigation of patients that have been treated with a shunt, to find out if the implant is fully functional or not. With the right automated protocol, this examination can determine whether a patient should undergo additional surgery to adjust the shunt.