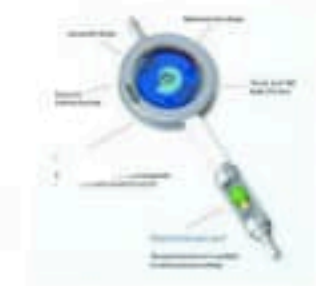




# SHUNT DEVICES



20250103



External Drainage:

نام ایرانی	انگلیسی
مدترونیک	Medtronic
سوفیسا	Sophysa
اینترا	Integra

medtronic



تهیه کننده:

دکتر سید محمد مهدی میر حسینی

استاد راهنما:

جناب آقای دکتر شفیعی

گروه جراحی مغز و اعصاب

دانشگاه علوم پزشکی اصفهان



Delta



Fujii



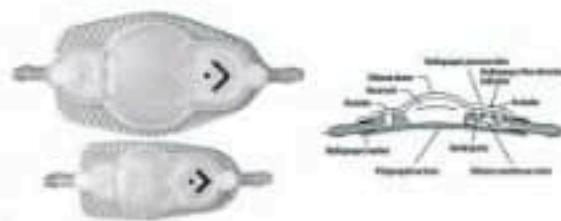
sophysa



integra



medtronic



## Valve Type

Some of the most common types of shunt valves are the Delta, Fujii, and Medtronic valves. These valves are designed to regulate the flow of CSF from the ventricles of the brain to the subarachnoid space. The Delta valve is a simple design with a single inlet and outlet. The Fujii valve is a more complex design with a double inlet and outlet. The Medtronic valve is a highly adjustable valve that can be set to a specific pressure.

انگلیسی	نام ایرانی
Medtronic	مدترونیک
Fujii	فوجی
Delta	دلتا
Integra	اینترا
Sophysa	سوفیسا

## What Is Hydrocephalus?

Hydrocephalus is a condition in which there is an abnormal accumulation of cerebrospinal fluid (CSF) within the ventricles of the brain. This accumulation can lead to an increase in the pressure within the skull, which can cause damage to the brain tissue.

In most instances, hydrocephalus is a lifelong condition and the patient is treated rather than "cured." Treatment by shunting (bypassing) the CSF to another area of the body through a small tube, generally allows people with hydrocephalus to lead full and active lives.

## Types of Hydrocephalus

Obstructive or non-communicating hydrocephalus occurs when the CSF flow is blocked within the ventricular system.

Non-obstructive or communicating hydrocephalus occurs when the CSF leaving the brain outside is restricted in its flow. If the rate of absorption is not functioning adequately, hydrocephalus may also be due to overproduction of CSF by the choroid plexus in a closed head.

## Diagnosis

In infants and toddlers, the bones of the skull are not yet closed and hydrocephalus may be obvious. The child's head will enlarge and the fontanel (soft spot) may be tense and/or bulging. The skin may appear thin and shiny, and the veins of the scalp may appear more or enlarged. Symptoms may include vomiting, poor feeding, fussiness, irritability, constant downward gaze of the eyes, and at times, seizures.

## Diagnostic Studies

Diagnostic studies for hydrocephalus include:

- Physical examination: Checking for an enlarged head, bulging fontanel, and other signs.
- Imaging: CT scan or MRI to visualize the brain and ventricles.
- Lumbar puncture: To measure CSF pressure and analyze the fluid.
- Shunt tap: To check the function of the shunt.