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MADISON NEUROLOGY LLC

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Neurology Care 7 days a Week. Because Your Brain Matters.

Hydrocephalus (Adult)

Patient education guide · Brain & Spine Injury and Other · Madison Neurology LLC

What is it?

Hydrocephalus is an accumulation of excess cerebrospinal fluid (CSF) within the brain's ventricles, raising pressure and compressing brain tissue. In adults it may follow hemorrhage, meningitis, head injury, tumors, or surgery — or appear with age as normal pressure hydrocephalus (NPH). Untreated, it causes progressive neurological decline; treated — usually with a shunt — it is one of neurosurgery's most correctable conditions.

How does it happen?

CSF is produced continuously and must drain and be absorbed; hydrocephalus results from blockage within the ventricular system (obstructive — e.g., aqueduct stenosis, tumor) or impaired absorption downstream (communicating — after hemorrhage, meningitis, or surgery). NPH is a special form with intermittently disturbed CSF dynamics in older adults.

Common symptoms

- Headache, nausea, and vomiting — classically worse in the morning
- Walking and balance problems; falls
- Cognitive slowing, inattention, and memory problems
- Urinary urgency or incontinence
- In acute, severe cases: drowsiness, vision problems, downward gaze difficulty — an emergency

How is it diagnosed?

CT or MRI shows enlarged ventricles; the pattern suggests the mechanism. For suspected NPH, a high-volume lumbar puncture or temporary drain test predicts shunt response. Sudden symptom worsening in a patient with a shunt suggests shunt malfunction — an urgent evaluation.

How is it treated?

The standard treatment is a ventriculoperitoneal shunt: a thin tube with a programmable valve draining CSF from the brain to the abdomen. For obstructive hydrocephalus, endoscopic third ventriculostomy (ETV — creating a bypass opening inside the brain) can avoid a shunt. Shunts can malfunction (blockage, infection, over-drainage) over time, so patients learn the warning signs — headache, nausea, drowsiness, or return of original symptoms mean prompt evaluation.

What does the future hold?

Treatment is often dramatically effective — particularly in NPH, where walking and thinking can markedly improve. Many patients live full, normal lives with a shunt. Shunts require lifelong awareness (a lifetime revision is needed by some patients), and knowing the malfunction warning signs keeps problems small.

Questions patients commonly ask

Q: Will I have the shunt for life?

A: Usually yes — it quietly does its job; some need a revision at some point, which is why knowing malfunction symptoms matters.

Q: What are shunt malfunction warning signs?

A: Return of original symptoms: worsening headache, vomiting, sleepiness, walking decline — treat these as urgent.

Q: Can I live normally with a shunt?

A: Yes — most activities are fine; discuss contact sports with your neurosurgeon, and tell every new doctor you have a shunt.

National support groups & resources

- **Hydrocephalus Association** — hydroassoc.org
- **American Academy of Neurology — Brain & Life patient resources** — brainandlife.org
- **National Organization for Rare Disorders** — rarediseases.org — 1-800-999-6673

(Organization contact details were current at the time of compilation; please verify online.)

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