

To schedule an evaluation
by a pediatric neurosurgeon:
Monday–Friday, 8 a.m. to 5 p.m.
352.273.6990 (O) | 352.392.8413 (F)

To transfer a neurosurgical patient, call the
UF Health Shands Transfer Center:
1.800.X.TRANSFER (1.800.987.2673)

UF Health Pediatric Neurosurgery: Hydrocephalus

GAINESVILLE, FLORIDA

**UF HEALTH NEUROSURGERY –
NEUROMEDICINE HOSPITAL**
1505 SW Archer Road, 1st Floor
Gainesville, FL 32608

**UF HEALTH PEDIATRIC SPECIALTIES –
OAKHURST**
1329 SE 25th Loop, Suite 101
Ocala, FL 34471

**UF HEALTH NEUROSURGERY –
TALLAHASSEE**
2390 Phillips Road
Tallahassee, FL 32308

**UF HEALTH NEUROSURGERY –
HALIFAX HEALTH**
311 N. Clyde Morris Blvd., 5th Floor
Daytona Beach, FL 32114

**UF HEALTH PEDIATRIC NEUROSURGERY –
LAKE CITY**
(Located in the UF Health Family Medicine Building)
755 State Road 47
Lake City, FL 32025

neurosurgery.ufl.edu/pediatrics
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shands children's hospital

About our program

The pediatric neurosurgery team at UF Health Shands Children's Hospital in Gainesville, Florida, offers children the latest and most advanced options for treating hydrocephalus. Our hydrocephalus surgery program is committed to offering state-of-the-art care to improve the quality of life of our patients.

At UF Health, all of our pediatric patients with hydrocephalus are treated by University of Florida pediatric neurosurgeons:

- ▶ **Lance Governale, MD, FAANS, FAAP, Associate Professor and Chief of Pediatric Neurosurgery**
- ▶ **Jason Blatt, MD, FAANS, Assistant Professor of Pediatric Neurosurgery**

Dr. Governale and Dr. Blatt, along with their entire team, strive to alleviate worry and suffering while providing outstanding care for children of all ages.

Our procedures

Ventricular Shunts

Hydrocephalus is traditionally treated by implanting a ventricular shunt system, a plastic tube that drains cerebrospinal fluid, or CSF, from the brain to another location in the body where it can be absorbed (usually the peritoneal cavity). More than a million people in the United States have a shunt, and it is the most common operation for the treatment of hydrocephalus. For the smallest premature infants in the Neonatal ICU, our neurosurgeons will sometimes use a temporary shunt to help drain the CSF, a step designed to allow the child to grow before more permanent hydrocephalus treatment can begin. Because shunts can clog or malfunction over time, neurosurgeons attempt to treat hydrocephalus without a shunt when possible.

Endoscopic Third Ventriculostomy

Depending on the location of the CSF blockage, some patients may be candidates for an endoscopic third ventriculostomy, or ETV. During ETV, one of our neurosurgeons will create an opening in the third ventricular floor to allow CSF to pass from the inside to the outside of the brain, bypassing the blockage. If the ETV successfully treats the hydrocephalus for six months, it is likely to treat it in the long term and the child does not require a shunt. Historically, ETV has been largely unsuccessful in infants less than 1 year old, possibly due to immature CSF absorption pathways. For these patients, we sometimes recommend combining ETV with a technique called choroid plexus cauterization, or CPC, to reduce CSF production.

ETV-CPC

UF Health Shands Children's Hospital is the only hospital in Florida and among only a handful of children's hospitals in the nation that offers ETV-CPC using the method pioneered by Benjamin Warf, MD, at Boston Children's Hospital. During the ETV-CPC procedure, after the ETV component, one of our neurosurgeons will endoscopically cauterize much of the choroid plexus, the tissue that produces CSF. Candidates for the procedure are under 1 year of age and have hydrocephalus caused by a blockage in the cerebral aqueduct, the fourth ventricle or the fourth ventricular outflow (without additional blockages), as determined by a high-resolution MRI. This includes a portion of patients with hydrocephalus from intraventricular hemorrhage, CSF infection, congenital aqueductal stenosis and myelomeningocele. During the procedure, Dr. Governale or Dr. Blatt will reduce CSF production and bypass the blockage(s). In eligible patients, ETV-CPC can have a 50 to 70% success rate in preventing the need for shunt placement. If the ETV-CPC procedure treats the hydrocephalus successfully for six months, it is likely to treat it in the long term. If the hydrocephalus returns, the child may need a shunt placed.