

# Neurosurgery

## What Is Neurosurgery?

Neurosurgery is the surgical treatment of diseases and disorders of the brain and spinal cord. Gillette Children's Specialty Healthcare is a regional leader in pediatric neurology and neurosurgery.

## Conditions Neurosurgery Treats

Neurosurgery treats complex neurological conditions affecting the spinal cord, neck, nerves, and/or brain that began in childhood. At Gillette, we also provide neurosurgical care to treat the secondary effects of such complex conditions.

Some of the conditions we treat most often include:

- **Cerebral palsy.**
- **Deformational plagiocephaly.**
- **Epilepsy and seizures.**
- **Brain injury** and related neurotrauma.
- **Hydrocephalus.**
- **Craniosynostosis.**
- **Spina bifida.**
- Arachnoid cysts.
- **Arteriovenous malformations** and other cerebral vascular conditions.
- **Birth brachial plexus injury.**
- **Chiari malformation.**
- **Complex movement disorders.**
- Dandy-Walker syndrome.
- Macrocephaly.
- Moyamoya syndrome.
- **Spasticity.**
- Spinal cord abnormalities, including **tethered spinal cord.**
- **Spinal cord injury and related neurotrauma.**

## Tests and Treatments

Your child or family member will benefit from the latest technology and techniques in neurosurgery at Gillette. Some of our neurosurgery tests and treatments include:

- Cranial vault remodeling for **craniosynostosis**.
- Deep brain stimulation for **complex movement disorders**.
- Endoscopic third ventriculostomy for **hydrocephalus**.
- Intraoperative monitoring.
- **Intrathecal baclofen pump** implantation to manage spasticity.
- **Neurodiagnostics**, including **electroencephalography (EEG), video EEG**, electromyography and **sleep study (polysomnography)**.
- **Selective dorsal rhizotomy surgery for spasticity**.
- **Shunt surgery** for **hydrocephalus**.
- **Tethered spinal cord release**.
- Vagus nerve stimulation for **epilepsy and seizures**.

Because many of the conditions we treat are diagnosed during pregnancy, our neurosurgeons also offer prenatal consultations and diagnosis. We meet with you and teach about conditions such as hydrocephalus, spina bifida, neural tube defects and cysts. We also provide education on treatment options and, if appropriate, help plan a course of treatment.

## **Integrated Care**

If your child needs treatment for a complex neurological condition, they will benefit from the expertise of internationally recognized pediatric neurosurgeons at Gillette. Along with our pediatric nurse practitioners, these specialists deliver full-service care in a family-centered environment.

Your child's health, comfort and confidence are our top priorities. At Gillette, you'll work closely with top pediatric neurosurgeons that specialize in highly complex conditions and injuries. Together, these teams of experts will help your child feel their best.



[Patrick Graupman, MD](#)

[Pediatric Neurosurgeon](#)



[Susanna Hunter, APRN, CNP](#)

[Pediatric Nurse Practitioner](#)



Maggie Kaeding, PA-C

Physician Assistant



Peter Kim, MD

Pediatric Neurosurgeon



[Alaina Laine, APRN, CNP](#)

[Pediatric Nurse Practitioner](#)



[Brigid Packer, APRN, CPNP](#)

[Pediatric Nurse Practitioner](#)



[Teresa Schultz, PNP](#)

[Pediatric Nurse Practitioner](#)



[Amanda Seeley, PNP](#)

[Pediatric Nurse Practitioner](#)



[Debbie Song, MD](#)

[Pediatric Neurosurgeon](#)



[Shawn Wedlund, APRN, CNP](#)

[Pediatric Nurse Practitioner](#)

### **Locations**

Our surgery facility is located on the St. Paul Campus. Our neurosurgeons also conduct outpatient visits at the following locations.



[St. Paul Campus](#)



[Burnsville Clinic](#)



[Duluth Clinic](#)



[Gillette Mankato Clinic](#)



## [Minnetonka Clinic](#)

Make An Appointment [651-290-8707](tel:651-290-8707) Refer a Patient [651-325-2200](tel:651-325-2200)

This information is for educational purposes only. It is not intended to replace the advice of your health care providers. If you have any questions, talk with your doctor or others on your health care team.

If you are a Gillette patient with urgent questions or concerns, please contact Telehealth Nursing at [651-229-3890](tel:651-229-3890).