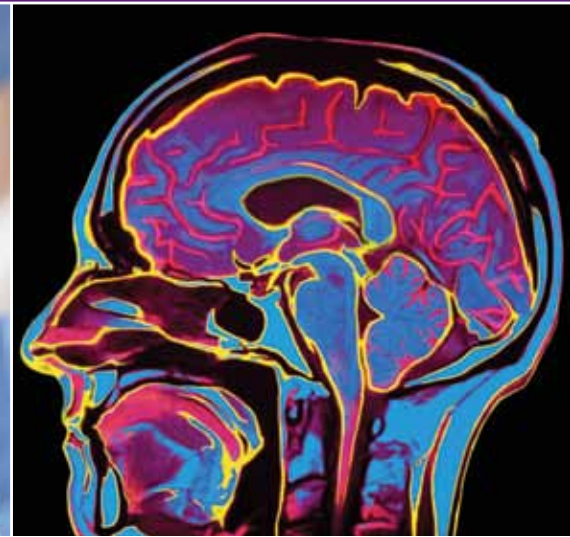


ABBOTT NORTHWESTERN HOSPITAL

Neuroscience Institute



Exceptional care. Excellent outcomes.



ABBOTT
NORTHWESTERN
HOSPITAL

Allina Hospitals & Clinics



We specialize in the diagnosis and treatment of:

- strokes
- brain tumors
- epilepsy
- herniated disks
- movement disorders
- aneurysms
- spinal stenosis and instability
- sleep disorders
- spinal canal tumors
- head and spine injuries
- Alzheimer's disease
- vascular malformations.

DEDICATED FACILITIES AND EXPERIENCED STAFF

Neurological science is progressing rapidly, enabling more accurate diagnoses and more effective treatments. These advances contribute to outstanding results at Abbott Northwestern Hospital's Neuroscience Institute, the leading center for neurological care in the Twin Cities.

The Neuroscience Institute combines skilled physicians, experienced staff, dedicated facilities, advanced technology and focused programs to provide a comprehensive resource for the care of all neurological conditions.

In addition to 46 private rooms on the neuroscience inpatient unit, the Neuroscience Institute provides 12 rooms designed and staffed for critically ill neurological patients. Five neurosurgical operating rooms are available, including one equipped with a high field intraoperative MRI scanner. The clinical team includes more than 200 neuroscience nurses and 50 neuroscience physicians.

Every year we care for more patients with neurological conditions than any other metropolitan hospital. The judgment and skill developed from this experience are supported by continued investments in enhanced technology, providing a full spectrum of resources for the treatment of neurological disorders.



THE FRAMEWORK FOR PRECISION

The diagnosis and treatment of neurological conditions depend on precise localization within the brain or spinal canal. The Neuroscience Institute has invested in technological advances that accomplish this precision, including:

- A high field intraoperative MRI scanner enabling more complete removal of abnormal tissue while reducing complications and the need for repeat surgery.
- O-arm CT fluoroscopy, which provides CT scans in the operating room to monitor brain or spinal surgery.
- Computer-based systems for intraoperative localization, matching pre-operative scans to the position of the patient during surgery and guiding neurosurgeons to important landmarks.
- Intraoperative monitoring of nerve conduction, to assess and protect the function of cranial or spinal nerves during surgery.

Based on the complex cases we treat and the results we have achieved, *U.S. News & World Report* consistently ranks Abbott Northwestern as one of the nation's **Best Hospitals** for neurology and neurosurgery.



NEUROLOGIC EMERGENCY TREATMENT **NET**WORK

Abbott Northwestern's Neurologic Emergency Treatment NETwork was created to partner with rural hospitals in caring for patients who are experiencing neurological emergencies such as stroke or seizures. The program offers an immediate connection between outstate hospitals and Abbott Northwestern's neurologic specialists, enabling fast and appropriate treatment, regardless of a patient's location.

Education and protocols are provided to emergency medicine personnel in outstate communities to aid in effective management of urgent neurological conditions. Through the NETwork, physicians from other hospitals have access to specialists at the Neuroscience Institute through Abbott Northwestern's One Call Transfer Center.

Each year, Abbott Northwestern receives more referrals of neurological patients from outside of the metro area than any other hospital in the Twin Cities.

Telehealth Brings Expert Stroke Care to Regional Hospitals

Abbott Northwestern partners with regional and rural hospitals to provide telehealth services 24 hours a day. Through a Remote Presence RP-Lite robot, Neuroscience Institute physicians are able to provide expert stroke consults in local communities from Minneapolis. Doctors and patients in the regional hospital are able to see and interact with the on-call neurologist. The robot allows the neurologist to examine the patient as if he or she were in the same room – a crucial service for patients suffering from emergency neurological symptoms.



INPATIENT CARE

Abbott Northwestern offers inpatient facilities designed to meet the needs of neurological patients and their families.

The award-winning Neuroscience Inpatient Unit has 46 private rooms, including 11 rooms equipped for epilepsy monitoring. The 80 nurses who staff the unit have advanced training and focused experience in caring for patients with neurological disorders.

Internal medicine physicians who specialize in the management of hospitalized patients work closely with neuroscience physicians to ensure expert treatment of co-existing conditions.

The 12-bed Neuroscience Critical Care Unit provides advanced care for critically ill neurologic patients. State-of-the-art technologies, including video-EEG recording, provide constant monitoring that contributes to optimal outcomes. The unit is staffed by 140 registered nurses and a team of intensivist physicians who are available 24 hours a day, seven days a week.



Neurosurgeons at Abbott Northwestern perform 2,000 brain and spine surgeries each year, more than any other hospital in the Twin Cities.

SPECIALTY PROGRAMS

Advanced Cranial and Spinal Neurosurgery

The high volume of cranial and spinal neurosurgical procedures at the Neuroscience Institute includes a full spectrum of diagnoses and complexity. This experience reinforces the skill of our nurses and physicians and enables Abbott Northwestern to continue to invest in specialized personnel and equipment.

Modern technology in our operating rooms includes CT and MR imaging, computer-guided localization systems and real-time monitoring of nerve function – tools that maximize both effectiveness and safety.

These resources support both precise cranial operations and advanced spinal procedures. In fact, Abbott Northwestern Hospital is one of the country's leading centers for spinal surgery – both in terms of numbers of cases and in terms of experience with new techniques and instrumentation.

Minimally Invasive Treatments

Accompanying neurosurgical expertise at the Neuroscience Institute is a highly experienced team of interventional neuroradiologists. These specialists guide catheters into the arteries of the brain to treat patients with aneurysms, strokes or tumors. Minimally invasive, catheter-based procedures can replace neurosurgery in many cases and enable it in others.

Stereotactic radiosurgery is another advanced treatment option at the Neuroscience Institute. This single-session, computer-guided form of radiation therapy can supplement or replace traditional neurosurgery for selected patients.



Partnership to Treat Cancer

The management of brain and spinal tumors is complex and requires coordinated care. Abbott Northwestern's Neuro-Oncology Program is a unique partnership of two nationally recognized resources, the Neuroscience Institute and the Virginia Piper Cancer Institute. The program offers comprehensive care for patients through the collaboration of neurosurgeons, neuroradiologists, neuropathologists, neuro-oncologists, radiation oncologists and specialized neuro-oncology nurses and nurse practitioners.

The Neuro-Oncology Program supports patients and their families throughout the entire course of illness. A dedicated social worker is available to help manage the complexity of the initial diagnosis, ongoing treatment discussions, and restructuring of relationships and expectations. A support group is also offered for encouragement, education and discussion.



Skull Base Center

The Skull Base Center at Abbott Northwestern is one of only a few programs nationwide committed to the management of skull base disease. The skull base is one of the most anatomically complex and difficult areas of the body to access. Surgery in this region involves carefully removing or displacing bone and soft tissue while limiting damage to nerves and the brain. Advanced techniques and new technologies allow for procedures that are safer and more precise than ever before.

The team at the Skull Base Center includes neurosurgeons, neurophysiologists, neuro-otologists, otolaryngologists, neurologists, neuro- and interventional radiologists, radiation and neuro-oncologists and craniofacial surgeons. Supporting this team are dedicated nurses, audiologists, speech and language pathologists and physical and vestibular therapists.



Top Rated Stroke Program

When a stroke occurs, every minute counts. Our Stroke Program offers the expertise, advanced diagnostic techniques and critical interventions to make the most of those minutes and minimize brain damage. One of the oldest and most comprehensive programs in the region, the Stroke Program has earned recognition for quality of care, including The Joint Commission's Certificate of Distinction as a Primary Stroke Center. The program is further strengthened by our partnership with Sister Kenny® Rehabilitation Institute, the region's leading provider of services to restore neurological function.

Expert Epilepsy Care

Our Epilepsy Program is one of the largest in the U.S., distinguished by outstanding results and a national and international reputation. The program is led by neurologists who are experienced in the full range of diagnostic, medical and surgical options. These physicians participate in clinical trials of new medications and specialize in helping individuals whose seizures have not responded to earlier treatments.

OUTPATIENT PROGRAMS

Movement Disorders

The Neuroscience Institute offers coordinated care for patients with movement disorders, such as Parkinson disease.

Deep Brain Stimulation (DBS) is a technology that can benefit patients living with movement disorders such as essential tremor or Parkinson disease. DBS electrodes are surgically placed in the exact locations of the brain responsible for generating the movement disorder. These electrodes then emit pulses of electricity that neutralize the abnormal brain activity.



Sleep Center

Accredited by the American Academy of Sleep Medicine for more than 20 years, Abbott Northwestern's Sleep Center provides comprehensive services for patients with sleep disorders ranging from sleep apnea to insomnia to restless leg syndrome. Sleep studies are conducted in a new facility, where our staff monitors brain waves and physiological parameters to measure quality of sleep and determine causes of sleep disruption. Because of the Center's location within the hospital, patients with acute or complex medical needs can be safely studied.

Treatment may include counseling on sleep hygiene, medication, modification of airway conditions or referral for corrective surgery. The Sleep Center includes a Behavioral Sleep Medicine Program led by a psychologist who is board certified in the behavioral treatment of insomnia and related sleep disorders.



OUR PARTNERS

The Neuroscience Institute is strengthened by its partners at Abbott Northwestern Hospital. These partnerships ensure that our patients receive integrated care that addresses the full range of complex needs.

Penny George™ Institute for Health and Healing

The Penny George Institute for Health and Healing offers a comprehensive integrative medicine program, blending the best evidence-based conventional therapies with healing therapies. Patients receive individualized care that may include acupuncture, therapeutic massage, mind/body therapies, energy healing, music therapy, reflexology and aromatherapy.

Sister Kenny® Rehabilitation Institute

The Sister Kenny Rehabilitation Institute is the leading rehabilitation provider in the region. The Institute specializes in treating spinal cord injury, brain injury, stroke, work- or sports-related injuries, neuromuscular disorders, speech-language disorders and chronic pain. Its dedicated staff use innovative techniques and equipment to give patients the hope and tools needed to maximize recovery.

Virginia Piper Cancer Institute®

The Virginia Piper Cancer Institute provides comprehensive care through all aspects of cancer prevention, early detection and treatment. Specialists work together in multidisciplinary, organ-specific programs to combine their expertise for each individual's care. Patients benefit from advanced technology, compassionate staff and an environment that is focused on their needs.



HELP FOR EVERY PATIENT

Skilled physicians, experienced staff, dedicated facilities, advanced technology and focused programs make the Neuroscience Institute a comprehensive resource for the care of any neurological condition.

For more information about our services, call **612-863-3200** or visit **abbottnorthwestern.com**.



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