Neurological surgery

Background

Neurological surgery, also called neurosurgery, is the medical specialty that encompasses the operative and nonoperative prevention, diagnosis, evaluation, treatment, and rehabilitation of disorders affecting the spinal column, spinal cord, brain, and central, peripheral, and autonomic nervous systems, according to the American Association of Neurological Surgeons (AANS).

According to the American College of Surgeons (ACS), conditions that specialists in neurological surgery commonly treat include but are not limited to the following:

- Brain tumors
- Intracranial aneurysms
- Head injuries
- Spinal canal stenosis
- Herniated discs
- Tumors
- Fractures
- Spinal deformities

The ACS’ Web site also states that technological advancements (e.g., new treatment methods and surgical techniques) are proliferating within the specialty of neurosurgery, contributing to the creation of numerous subspecialties within the field. In addition, an increasing number of neurosurgeons are electing to enter optional one-year fellowships in neurooncology, spinal surgery, epilepsy surgery, functional neurosurgery, cerebrovascular surgery, or pediatric neurosurgery following completion of their training in neurological surgery.

Physicians specializing in neurological surgery must complete a 60-month residency program in addition to a 12-month internship spent learning fundamental surgical skills.

Core privileges in neurological surgery include the ability to admit, evaluate, diagnose, consult, and provide nonoperative and pre-, intra-, and postoperative care to patients of all ages presenting with injuries or disorders of the central, peripheral, and autonomic nervous system, including their supporting structures and vascular supply; the
evaluation and treatment of pathological processes that modify function or activity of the nervous system, including the hypophysis; and the operative and nonoperative management of pain.

These privileges include but are not limited to the care of patients with disorders of the nervous system (e.g., the brain, meninges, skull, and their blood supply, including the extracranial carotid and vertebral arteries); disorders of the pituitary gland; disorders of the spinal cord, meninges, and vertebral column; and disorders of the cranial and spinal nerves throughout their distribution. Practitioners may provide care to patients in the intensive care setting in conformance with unit policies. Practitioners may also assess, stabilize, and determine the disposition of patients with emergent conditions consistent with medical staff policy regarding emergency and consultative call services.

**Involved specialties**

Neurosurgeons and orthopedic surgeons

**Positions of societies and academies**

- **AANS**
  
  The AANS, a scientific and educational association representing more than 7,500 members dedicated to advancing the specialty of neurological surgery, has no formal position concerning the delineation of privileges for neurological surgery.

- **AOA/ACOS**
  
  The American Osteopathic Association (AOA) represents 59,000 doctors of osteopathy (DO). The American College of Osteopathic Surgeons (ACOS) is an affiliated group that establishes curriculum requirements for osteopathic surgery students and accredits osteopathic residency programs in the surgical specialties. The ACOS document *Neurological Surgery: Clinical Sciences and Skills* states that neurosurgery residents learn clinical sciences and skills on clinical rotations and in instructional settings.

By the end of their neurosurgical residency, residents must be able to perform the following tasks within each of the following areas:

- **Neuro critical care:**
  - Understand the anatomy, physiology, pathophysiology, and presentation of traumatic injuries of the brain, spinal cord, and peripheral nervous system, including their supporting structures
  - Formulate and implement appropriate surgical and nonsurgical diagnostic and treatment plans for traumatic injuries to the nervous system
  - Triage neurosurgical patients to and from a critical care setting
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- Understand and be able to manage neurosurgical patients in the critical care setting
- Understand and perform osteopathic manipulative methods to assist in the treatment of neurosurgical critical care patients
- Collaborate with the primary care physician, neurologist, nursing staff members, and other specialists, as needed

**Incisions, sutures, and wound healing:**
- Place and perform surgical incisions and excisions on the skin in a manner that maximizes cosmesis, promotes good healing, and maintains normal function
- Identify the types of salines and dressings commonly employed in neurosurgical patients, understanding the advantages and disadvantages of various techniques
- Use different surgical techniques for incisions and closing in routine and complex wounds
- Evaluate and treat patients with wound complications
- Identify factors related to wound healing
- Understand wound contamination and its relationship to complications and healing
- Understand the importance of wound tension as it relates to location, direction, and closure of incisions
- Understand and perform osteopathic manipulative methods to assist in the treatment of neurosurgical patients, increasing blood flow to the region to assist in wound healing

**Fluids and electrolytes:**
- Manage fluid and electrolyte homeostasis
- Recognize pathologic fluid and electrolyte balance
- Maintain normal electrolyte balance

**Infectious diseases:**
- Understand the factors related to the acquisition, diagnosis, and treatment of infections as they pertain to neurosurgical patients
- Identify the presentation and treatment of common neurosurgical infections
- Use methods to minimize infectious complications in neurosurgical patients
- Use techniques to minimize the risk or spread of viral infections, including hepatitis and HIV
- Work with a multidisciplinary team, including pharmacists, microbiologists, and public health scientists and practitioners
- Use best practices to prevent and treat ventilator-associated infections, including fungi and central-venous catheter infections
Nutrition:
- Understand the basics of nutritional management in neurosurgical patients
- Accurately calculate daily protein, nonprotein, and lipid caloric requirements
- Recognize and treat complications of nutritional excesses and deficiencies
- Prescribe and manage enteral and parenteral nutrition
- Understand and perform osteopathic manipulative methods to assist in the treatment of bowel regulation in neurosurgical patients

Osteopathic manipulative medicine (OMM):
- Understand the principles of OMM and be familiar with those techniques that will assist in diagnosing and treating neurosurgical patients
- Conduct an integrated physical and structural exam that includes analysis of viscerosomatic relationships
- Evaluate patients for structural asymmetries and tissue texture abnormalities
- Test for alterations of motion and identify abnormalities
- Understand the balance between the sympathetic and parasympathetic nervous systems
- Understand how OMM can assist pulmonary function postoperatively
- Interpret structural findings in context of osteopathic principles and practices

Pain management:
- Appreciate the complexity of pain and the multiple modalities to treat it
- Treat various pain conditions by direct surgical or indirect functional surgical intervention
- Prescribe appropriate medications for acute and chronic pain conditions
- Develop a multispecialty approach in chronic pain conditions

Surgical infections:
- Diagnose and manage perioperative infectious processes
- Understand the effects of antimicrobial agents (e.g., antibiotics, antiviral, antifungal)
- Select the appropriate antimicrobial agent for a surgical infection based on evidence, cost, and population
- Understand the societal implications and individual outcomes of nosocomial infections
- Initiate preventive measures for infections
- Perform sterile surgical techniques
- Evaluate and treat sepsis
In its document *Delineation of Clinical Privileges for Orthopaedic Surgery*, the American Academy of Orthopaedic Surgeons (AAOS) states that orthopedic surgeons who have successfully completed an Accreditation Council for Graduate Medical Education (ACGME)–approved residency program have met educational requirements in the areas of diagnosis and care of disorders affecting the bones, joints, and soft tissues of the upper and lower extremities, including the hand and foot; the entire spine, specifically including intervertebral disks; and the bony pelvis.

The AAOS says neurology education is a part of training in orthopedic surgery. Specifically, it states that orthopedic education includes experience with all patient age groups, acute and chronic care, and related clinical subjects, including musculoskeletal imaging procedures, use and interpretation of clinical laboratory tests, use of prosthetics, orthotics, physical modalities and exercises, treatment of certain neurological and rheumatological disorders, and the administration of local, regional, or spinal anesthesia.

The American Board of Neurological Surgery (ABNS) grants certification in neurological surgery to those who qualify. To be eligible for certification, the applicant must have completed:

- Postgraduate year one (PGY-1) in fundamental clinical skills lasting 12 months. Although this year must be completed prior to beginning the third year of neurosurgical residency training, the ABNS recommends that it be taken prior to beginning residency. The ABNS also states that this requirement may be satisfied by training for one or more years in an ACGME-accredited general surgery training program in the United States.

- An ACGME-approved residency program in neurological surgery lasting 60 months. Requirements also specify that:
  - At least 36 months must be devoted to core clinical neurosurgery with progressive responsibility, culminating in 12 months as senior-most resident.
  - A minimum of three months must be devoted to clinical neurology (the ABNS recommends six months).
  - The remaining 21–24 months be spent in basic or clinical neurosurgical sciences, which may include neuropathology, neuroradiology, and research. The ABNS states that some of this time might be dedicated to additional neurology, subspecialty neurosurgical training such as pediatric neurosurgery or spine and endovascular surgery, and other disciplines related to the nervous system.
Each applicant for certification must first pass the primary examination, which includes material on fundamental clinical skills, critical care, neuroanatomy, neurobiology, neurology, neuropathology, neuropharmacology, neuroradiology, and neurological surgery.

To become certified, each applicant must submit a list of all operative and nonoperative in-patients for whom he or she was the responsible physician or surgeon during a period of 12 consecutive months with at least three months of follow-up. The case log must include at least 100 cases for analysis. The oldest case cannot be more than two years old at the time of review. The applicant must also pass an oral examination.

**AOBS** The AOA grants certification in neurological surgery through the American Osteopathic Board of Surgery (AOBS).

In addition to passing oral and written examinations, candidates for certification must have graduated from an AOA-accredited college of osteopathic medicine and have satisfactorily completed an AOA-approved first year of osteopathic graduate medical education.

Applicants must show evidence of satisfactory completion of five years of training in an AOA-approved residency program. That training program must be structured in either of the following ways:
- One year of training in general surgery, followed by four years of training in neurological surgery
- Five years of training in neurological surgery

**ACGME** According to the ACGME, neurological surgery training encompasses all of the following:
- Evaluation and treatment of pathological processes that modify the function or activity of the nervous system, including the hypophysis
- The operative and nonoperative management of pain
- The surgical, nonsurgical, and stereotactic radiosurgical treatment of adult and pediatric patients with disorders of the nervous system
- Disorders of the brain, meninges, skull (including skull base) and their blood supply, including the surgical and endovascular treatment of disorders of the intracranial and extracranial vasculature supplying the brain and spinal cord
Disorders of the pituitary gland, spinal cord, meninges, and vertebral column, including those that may require treatment by fusion, instrumentation, or endovascular techniques

Disorders of the cranial and spinal nerves throughout their distribution

The ACGME program requirements for graduate medical education in neurological surgery include:

- A minimum of PGY-1 in an ACGME-accredited program spent learning fundamental clinical skills. That year, which must be completed by the third year of neurological surgery training, must include the following:
  - At least six months of structured educational experience in surgery, as approved by the neurological surgery program director
  - Three months of training in an ACGME-accredited neurology training program (preferably as a part of PGY-1)
  - No more than three months in neurological surgery

- A 60-month neurological surgery training program, in addition to the PGY-1 year spent on fundamental clinical skills. Program requirements include:
  - 36 months of clinical neurological surgery at the sponsoring institution or one of its approved participating sites.
  - 12 months as the chief resident on the clinical neurological surgery clinical service.
  - Three months in an ACGME-approved neurology residency program, unless the physician has had at least one year of formal residency training in an accredited neurology training program. This training may be taken during the year of fundamental clinical skills.

At the completion of their training, neurological surgery residents should have completed a minimum of 500 major neurological surgery procedures. The cases should be appropriately distributed among cranial, extracranial, spinal, and peripheral nerve surgical procedures and should represent a well-balanced spectrum of neurological surgery in adults and children. Cases should cover:

- Craniotomies for trauma, neoplasms, aneurysms, and vascular malformations
- Extracranial carotid artery surgery
- Transsphenoidal and stereotaxic surgery, including radiosurgery
- Pain management
Spinal procedures of a sufficient number and variety using modern techniques

The ACGME also requires that the following competencies be taught in regard to medical knowledge. Residents will:
- Generate a differential diagnosis and properly sequence critical actions for patient care, including management of complications, morbidity, and mortality.
- Synthesize and properly use acquired patient data.
- Identify neurosurgical emergencies.
- Know how to access current medical information.
- Understand how to treat neurosurgical conditions.
- Incorporate evidence-based principles.
- Have educational experience in neuroradiology, including endovascular surgical neuroradiology and neuropathology, designed specifically for neurological surgery residents. Such experience should be under the direction of qualified neuroradiologists—preferably endovascular neurosurgeons—and neuropathologists.
- Have experience and instruction in the basic neurosciences.

The Joint Commission

The Joint Commission (formerly JCAHO) has no formal position concerning the delineation of privileges for neurological surgery.

However, in its Comprehensive Accreditation Manual for Hospitals, The Joint Commission states, “The hospital collects information regarding each practitioner’s current license status, training, experience, competence, and ability to perform the requested privilege” (MS.06.01.03).

In the rationale for MS.06.01.03, The Joint Commission states that there must be a reliable and consistent system in place to process applications and verify credentials. The organized medical staff must then review and evaluate the data collected. The resultant privilege recommendations to the governing body are based on the assessment of that data.

The Joint Commission further states, “The organized medical staff reviews and analyzes information regarding each requesting practitioner’s current licensure status, training, experience, current competence, and ability to perform the requested privilege” (MS.06.01.07).

In the EPs for standard MS.06.01.07, The Joint Commission says the information review and analysis process is clearly
defined. The organization, based on recommendations by the organized medical staff and approval by the governing body, develops criteria that will be considered in the decision to grant, limit, or deny a request for privileges.

The Joint Commission further states, “Ongoing professional practice evaluation information is factored into the decision to maintain existing privilege(s), to revise existing privileges, or to revoke an existing privilege prior to or at the time of renewal” (MS.08.01.03).

In the EPs for MS.08.01.03, The Joint Commission states that there is a clearly defined process facilitating the evaluation of each practitioner’s professional practice, in which the type of information collected is determined by individual departments and approved by the organized medical staff. Information resulting from the ongoing professional practice evaluation is used to determine whether to continue, limit, or revoke any existing privilege.

**CRC draft criteria**

The following draft criteria are intended to serve solely as a starting point for the development of an institution’s policy regarding this practice area.

**Minimum threshold criteria for requesting core privileges in neurological surgery**

- **Basic education:** MD or DO
- **Minimal formal training:** Successful completion of an ACGME- or AOA-accredited residency in neurological surgery and/or current certification or active participation in the examination process (with achievement of certification within [n] years) leading to certification in neurological surgery by the ABNS or the AOBS.
- **Required previous experience:** Applicants for initial appointment must be able to demonstrate the performance of at least 50 neurological surgical procedures, reflective of the scope of privileges requested, in the previous 12 months or demonstrate successful completion of an ACGME- or AOA-accredited residency, clinical fellowship, or research in a clinical setting within the previous 12 months.

**Core privileges in neurological surgery**

Core privileges in neurological surgery include the ability to admit, evaluate, diagnose, consult, and provide nonoperative and pre-, intra-, and postoperative care to patients of all ages presenting with injuries or disorders of the central, peripheral, and autonomic nervous system, including their supporting structures and vascular supply; the evaluation and treatment
of pathological processes that modify function or activity of the nervous system, including the hypophysis; and the operative and nonoperative management of pain. These privileges include but are not limited to the care of patients with disorders of the nervous system (e.g., the brain, meninges, skull, and their blood supply, including the extracranial carotid and vertebral arteries); disorders of the pituitary gland; disorders of the spinal cord, meninges, and vertebral column; and disorders of the cranial and spinal nerves throughout their distribution. Practitioners may provide care to patients in the intensive care setting in conformance with unit policies. Practitioners may also assess, stabilize, and determine the disposition of patients with emergent conditions consistent with medical staff policy regarding emergency and consultative call services. Core privileges in neurological surgery include but are not limited to:

- Ablative surgery for epilepsy
- All types of craniotomies, craniectomies, and reconstructive procedures (including microscopic) on the skull, including surgery on the brain, meninges, pituitary gland, and cranial nerves, and including surgery for cranial trauma and intracranial vascular lesions
- Angiography
- Cordotomy, rhizotomy, and dorsal column stimulators for the relief of pain
- Endoscopic minimally invasive surgery
- Epidural steroid injections for pain
- Insertion of subarachnoid or epidural catheter with reservoir or pump for drug infusion or cerebrospinal fluid (CSF) withdrawal
- Laminectomies, laminotomies, and fixation and reconstructive procedures of the spine and its contents, including instrumentation
- Lumbar puncture, cisternal puncture, ventricular tap, and subdural tap
- Lumbar subarachnoid-peritoneal shunt
- Management of congenital anomalies (e.g., encephalocele, meningocele, and myelomeningocele)
- Muscle biopsy
- Myelography
- Nerve biopsy
- Nerve blocks
- Ordering of diagnostic studies and procedures related to neurological problems or disorders
- Peripheral nerve procedures, including decompressive and reconstructive procedures on the peripheral nerves
Neurological surgery

➤ History and physical examination
➤ Posterior fossa microvascular decompression procedures
➤ Radiofrequency ablation
➤ Selective blocks for pain medicine and stellate ganglion blocks
➤ Shunts: ventriculoperitoneal, ventriculoatrial, ventriculopleural, subdural peritoneal, lumbar subarachnoid/peritoneal (or other cavity)
➤ Spinal cord surgery for decompression of spinal cord or spinal canal, for intramedullary lesion, intradural extramedullary lesion, rhizotomy, cordotomy, dorsal root entry zone lesion, and tethered spinal cord or other congenital anomalies (e.g., diastematomyelia)
➤ Stereotaxic surgery
➤ Surgery for intervertebral disc disease
➤ Surgery on the sympathetic nervous system
➤ Transsphenoidal procedures for lesions of the sellar or parasellar region and fluid leak or fracture
➤ Ultrasonic surgery procedures
➤ Ventricular shunt operation for hydrocephalus, revision of shunt operation, and ventriculocisternostomy
➤ Ventriculography

Special requests for neurological surgery

For each special request, threshold criteria (e.g., additional training or completion of a recognized course and required experience) must be established. Special requests in neurological surgery include but are not limited to:
➤ Use of laser
➤ Percutaneous vertebroplasty
➤ Balloon kyphoplasty
➤ Deep brain stimulation
➤ Mechanical retriever
➤ Endoscopic laser foraminoplasty
➤ Transcranial Doppler ultrasonography
➤ Percutaneous lumbar discectomy
➤ Coil occlusion of aneurysms
➤ Artificial disc replacement
➤ Stereotactic radiosurgery
➤ Carotid endarterectomy
➤ Carotid stenting
➤ Administration of sedation and analgesia

References

A letter of reference must come from the director of the applicant’s neurological surgery training program. Alternatively, a letter of reference regarding competence should come from
the chief of neurological surgery at the institution where the applicant most recently practiced.

**Reappointment**

Reappointment should be based on unbiased, objective results of care according to the hospital’s existing quality assurance mechanisms.

Applicants must be able to demonstrate that they have maintained competence by showing evidence of the performance of at least 50 neurological surgical procedures, reflective of the scope of privileges requested, annually over the reappointment cycle.

In addition, continuing medical education related to neurological surgery should be required.

**For more information**

For more information regarding this practice area, contact:

Accreditation Council for Graduate Medical Education  
515 North State Street, Suite 2000  
Chicago, IL 60654  
Telephone: 312/755-5000  
Fax: 312/755-7498  
Web site: www.acgme.org

American Academy of Orthopaedic Surgeons  
6300 North River Road  
Rosemont, IL 60018-4262  
Telephone: 847/823-7186  
Fax: 847/823-8125  
Web site: www.aaos.org

American Association of Neurological Surgeons  
5550 Meadowbrook Drive  
Rolling Meadows, IL 60008  
Telephone: 847/378-0500 or 888/566-AANS (2267)  
Fax: 847/378-0600  
Web site: www.aans.org
American Board of Neurological Surgery
6550 Fannin Street, Suite 2139
Houston, TX 77030
Telephone: 713/441-6015
Fax: 713/794-0207
Web site: www.abns.org

American College of Osteopathic Surgeons
123 North Henry Street
Alexandria, VA 22314-2903
Telephone: 703/684-0416
Fax: 703/684-3280
Web site: www.facos.org

American College of Surgeons
633 North Saint Clair Street
Chicago, IL 60611
Telephone: 312/202-5000
Fax: 312/202-5001
Web site: www.facs.org

American Osteopathic Association
142 East Ontario Street
Chicago, IL 60611
Telephone: 800/621-1773 or 312/202-8000
Fax: 312/202-8200
Web site: www.do-online.org

American Osteopathic Board of Surgery
4764 Fishburg Road, Suite F
Huber Heights, OH 45424
Telephone: 800/782-5355 or 937/235-9786
Fax: 937/235-9788
Web site: www.aobs.org

The Joint Commission
One Renaissance Boulevard
Oakbrook Terrace, IL 60181
Telephone: 630/792-5000
Fax: 630/792-5005
Web site: www.jointcommission.org
Privilege request form
Neurological surgery

To be eligible to request clinical privileges in neurological surgery, an applicant must meet the following minimum threshold criteria:

➤ Basic education: MD or DO

➤ Minimum formal training: Successful completion of an ACGME- or AOA-accredited residency in neurological surgery and/or current certification or active participation in the examination process (with achievement of certification within [n] years) leading to certification in neurological surgery by the ABNS or the AOBS.

➤ Required previous experience: Applicants for initial appointment must be able to demonstrate the performance of at least 50 neurological surgical procedures, reflective of the scope of privileges requested, in the previous 12 months or demonstrate successful completion of an ACGME- or AOA-accredited residency, clinical fellowship, or research in a clinical setting within the previous 12 months.

➤ References: A letter of reference must come from the director of the applicant’s neurological surgery training program. Alternatively, a letter of reference regarding competence should come from the chief of neurological surgery at the institution where the applicant most recently practiced.

➤ Core privileges in neurological surgery: Core privileges in neurological surgery include the ability to admit, evaluate, diagnose, consult, and provide nonoperative and pre-, intra-, and postoperative care to patients of all ages presenting with injuries or disorders of the central, peripheral, and autonomic nervous system, including their supporting structures and vascular supply; the evaluation and treatment of pathological processes that modify function or activity of the nervous system, including the hypophysis; and the operative and nonoperative management of pain. These privileges include but are not limited to the care of patients with disorders of the nervous system (e.g., the brain, meninges, skull, and their blood supply, including the extracranial carotid and vertebral arteries); disorders of the pituitary gland; disorders of the spinal cord, meninges, and vertebral column; and disorders of the cranial and spinal nerves throughout their distribution. Practitioners may provide care to patients in the intensive care setting in conformance with unit policies. Practitioners may also assess, stabilize, and determine the disposition of patients with emergent conditions consistent with medical staff policy regarding emergency and consultative call services. Core privileges in neurological surgery include but are not limited to:
– Ablative surgery for epilepsy
– All types of craniotomies, craniectomies, and reconstructive procedures (including microscopic) on the skull, including surgery on the brain, meninges, pituitary gland, and cranial nerves, and including surgery for cranial trauma and intracranial vascular lesions
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- Angiography
- Cordotomy, rhizotomy, and dorsal column stimulators for the relief of pain
- Endoscopic minimally invasive surgery
- Epidural steroid injections for pain
- Insertion of subarachnoid or epidural catheter with reservoir or pump for drug infusion or CSF withdrawal
- Laminectomies, laminotomies, and fixation and reconstructive procedures of the spine and its contents, including instrumentation
- Lumbar puncture, cisternal puncture, ventricular tap, and subdural tap
- Lumbar subarachnoid-peritoneal shunt
- Management of congenital anomalies (e.g., encephalocele, meningocele, and myelomeningocele)
- Muscle biopsy
- Myelography
- Nerve biopsy
- Nerve blocks
- Ordering of diagnostic studies and procedures related to neurological problems or disorders
- Peripheral nerve procedures, including decompressive and reconstructive procedures on the peripheral nerves
- History and physical examination
- Posterior fossa microvascular decompression procedures
- Radiofrequency ablation
- Selective blocks for pain medicine and stellate ganglion blocks
- Shunts: ventriculoperitoneal, ventriculoatrial, ventriculopleural, subdural peritoneal, lumbar subarachnoid/peritoneal (or other cavity)
- Spinal cord surgery for decompression of spinal cord or spinal canal, for intramedullary lesion, intradural extramedullary lesion, rhizotomy, cordotomy, dorsal root entry zone lesion, and tethered spinal cord or other congenital anomalies (e.g., diastematomyelia)
- Stereotactic surgery
- Surgery for intervertebral disc disease
- Surgery on the sympathetic nervous system
- Transsphenoidal procedures for lesions of the sellar or parasellar region and fluid leak or fracture
- Ultrasonic surgery procedures
- Ventricular shunt operation for hydrocephalus, revision of shunt operation, and ventriculocisternostomy
- Ventriculography

Reappointment: Reappointment should be based on unbiased, objective results of care according to the hospital’s existing quality assurance mechanisms. Applicants must be able to demonstrate that they have maintained competence by showing evidence of the performance of at least 50 neurological surgical procedures, reflective of the scope of privileges requested, annually over the reappointment cycle. In addition, continuing medical education related to neurological surgery should be required.
I understand that by making this request, I am bound by the applicable bylaws or policies of the hospital, and hereby stipulate that I meet the minimum threshold criteria for this request.

Physician’s signature: _______________________________________________________

Typed or printed name: _____________________________________________________

Date: ______________________________________________________________________