

IU Health provides sub-specialized expertise to treat complex skull base conditions

At IU Health, our highly specialized, multidisciplinary team delivers exceptional expertise in diagnosing, treating and managing the most complex skull base conditions. Working together, our neurosurgeons, neurotologists, endocrinologists, rhinologists, laryngologists, radiation oncologists and rehabilitation specialists provide personalized treatment and recovery plans—combining advanced surgical techniques, targeted therapies and comprehensive post-operative care to optimize outcomes and restore function. Actively engaged in clinical research, our physicians ensure patients receive the most innovative, evidence-based care available.

What sets us apart

- **Indiana's only academic health center,** partnering with Indiana University School of Medicine to bring patients access to groundbreaking research, clinical trials and the most advanced skull base care in the state
- **Indiana's only multidisciplinary, sub-specialized, fellowship-trained skull base team,** bringing together advanced expertise across the full spectrum of skull base disorders to deliver coordinated, personalized treatment plans tailored to each patient's needs
- **Comprehensive, highly skilled care teams,** including endocrinologists, radiation oncologists, neurosurgeons, facial plastic surgeons, neurotologists, laryngologists and head and neck oncologists who rehabilitate tumor-related cranial nerve deficits (such as facial paralysis, vocal cord paralysis, and swallowing dysfunction)
- **National research leadership in pituitary surgery, vestibular schwannoma and CSF leaks,** combined with extensive experience in rare and complex cases, establishing the program as the highest-volume skull base and pituitary surgery center in Indiana and one of the largest in the nation
- **Dedicated support** from our skull base nurse navigator, neuro-interventionalists and rehabilitation therapists, collaborating closely with you and your patients throughout their journey
- **Rapid access to care**, with expert evaluations scheduled within seven days of referral

Referring to IU Health Skull Base Program

When you refer a patient to our program, you can expect:

- **Timely, transparent communication** about your patient's personalized care plan and progress
- **Collaborative, team-centered support** throughout your patient's treatment journey
- **Care coordination** for appointment consolidation to reduce travel, improve efficiency and elevate the patient experience
- **Direct access to our team** for questions and collaboration

If you have a patient in need of skull base care or have questions about our program, please contact our **Skull Base Nurse Navigator at 317.963.9345** for guidance and support. To refer a patient for a neurosurgery diagnosis, call 317.963.1300 or fax 317.222.2012. To refer a patient for an otolaryngology skull base diagnosis, call 317.944.6467 or fax 317.968.1038.

Indiana University Health

Neurosurgeons



Joao Paulo Almeida, MD, PhD
Co-Director
Specialties: Pituitary tumors (adenomas and cranio-pharyngiomas); skull base tumors (meningioma, chordoma, chondrosarcoma); vestibular schwannoma (acoustic neuroma); epidermoid; cranial nerve disorders (trigeminal neuralgia, hemifacial spasm)



Devi P. Patra, MD, MCh, MRCSEd
Specialties: Vestibular schwannoma (acoustic neuroma); skull base tumors (meningioma, chordoma, chondrosarcoma); pituitary tumors (adenomas); cranial nerve disorders (trigeminal neuralgia, hemifacial spasm); neurovascular skull base conditions



Matthew W. Pease, MD
Specialties: Malignant and metastatic brain tumors; skull base tumors (meningioma, chordoma, chondrosarcoma); pituitary tumors



Angela M. Richardson, MD, PhD
Specialties: Malignant and metastatic brain tumors; pituitary tumors; skull base tumors (meningioma, chordoma, chondrosarcoma)



Mitesh V. Shah, MD, FACS, FAANS
Specialties: Vestibular schwannoma (acoustic neuroma); skull base tumors (meningioma, chordoma, chondrosarcoma); pituitary tumors

Otolaryngology/Lateral skull base surgeons



Rick F. Nelson, MD, PhD
Co-Director
Specialties: Lateral fossa CSF leaks; encephaloceles; vestibular schwannomas; petrous bone tumors



Evan C. Cumpston, MD
Specialties: Lateral fossa CSF leaks; encephaloceles; vestibular schwannomas; petrous bone tumors



Charles W. Yates, MD
Specialties: Lateral fossa CSF leaks; encephaloceles; vestibular schwannomas; petrous bone tumors

Endocrinologist



Eric. D. Frontera, DO
Specialties: Pituitary diseases, functional and non-functional pituitary tumors

Otolaryngology/Anterior skull base surgeons



Elisa A. Illing, MD
Specialties: Sinonasal tumors; anterior fossa CSF leaks; encephaloceles



Vijay R. Ramakrishnan, MD
Specialties: Sinonasal tumors; anterior fossa CSF leaks; encephaloceles



Satyan B. Sreenath, MD
Specialties: Sinonasal tumors; anterior fossa CSF leaks; encephaloceles



Jonathan Y. Ting, MD
Specialties: Sinonasal tumors; anterior fossa CSF leaks; encephaloceles

Neurovascular surgeons



Bradley N. Bohnstedt, MD, FAANS
Specialties: Endovascular treatment of skull base tumors; neurovascular skull base disorders (AVMs, aneurysms, cavernous malformations, moyamoya); cranial nerve disorders (trigeminal neuralgia, hemifacial spasm)



Kenneth A. Moore, MD
Specialties: Endovascular treatment of skull base tumors; neurovascular skull base disorders (AVMs, aneurysms, cavernous malformations, moyamoya); cranial nerve disorders (trigeminal neuralgia, hemifacial spasm)

Radiation oncologists



Kevin R. Shiue, MD
Specialties: Primary brain tumors; metastatic brain tumors; gliomas; meningiomas; pituitary adenomas



Michael E. Weisman, MD
Specialties: Primary brain tumors; metastatic braintumors; gliomas; meningiomas; pituitary adenomas

Our specialized experts provide

- Endoscopic approaches to the skull base
- Microsurgery for resection of complex skull base tumors
- Radiation therapy
- Reconstructive surgery
- Facial nerve preservation
- Hearing preservation
- Functional restoration
- Medical therapy, including access to clinical trials
- Advanced imaging-guided surgeries
- Patient and caregiver support

Tumors and conditions we treat

- Vestibular schwannoma
- Pituitary adenoma
- Cerebrospinal fluid leaks
- Meningiomas
- Craniopharyngioma
- Acoustic neuroma
- Chordomas
- Chondrosarcomas
- Epidermoid cysts
- Paraganglioma
- Microvascular conflicts
- Paranasal sinus tumors
- Esthesioneuroblastoma

Technology and techniques we use

- Intraoperative MRI/CT
- 4K high-definition/3D endoscopy
- Continuous multi-cranial nerve monitoring
- Stereotactic image guidance
- Endovascular embolization
- Microsurgery

Post-op patient services

- Physical therapy
- Occupational therapy
- Speech therapy
- Audiology
- Pain management
- Nutrition support
- Behavioral health
- Care coordination
- Social work support

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