NEUROSCIENCES
PHYSICIAN UPDATE E-EDITION

MAYO CLINIC

January 2020

Patient Care

Mayo Clinic offers minimally invasive fetoscopic repair of myelomeningocele
Fetoscopic repair of myelomeningocele can provide surgical outcomes for the fetus that are similar to those of open surgery while lessening the risk of preterm birth.

Research, technological advances and a holistic approach ensure the optimal management of epilepsy
Mayo Clinic's patient-centered care combines sophisticated imaging and surgical techniques with a multidisciplinary focus encompassing the psychosocial problems associated with epilepsy.

Mayo Clinic in Arizona named a Center of Excellence for Enhanced Recovery After Surgery
Since implementing Enhanced Recovery After Surgery protocols, Mayo Clinic in Arizona has reported decreased lengths of hospital stay and fewer complications and readmissions.

Research

Stem cells may improve motor and sensory function of people with spinal cord injuries
After an injection of stem cells from his own fat, a clinical trial participant demonstrated improvement in motor and sensory functions without

significant adverse effects.

Researchers use nanoparticles to deliver anti-cancer therapy directly to glioblastomas

Mayo Clinic is developing ways to use nanoparticles to modify adipose-derived mesenchymal stem cells to secrete anti-tumor proteins. The therapy can then be delivered at the time of tumor resection.

System maps patient-specific progress of glioblastoma, with or without a particular treatment

Kristin R. Swanson, Ph.D., uses mathematical modeling to document glioblastoma texture, density, direction of growth and rate of invasion — and predict the best treatment for each patient.

Research review confirms MSCs are safe, tolerable in patients with hemorrhagic stroke

Mayo researchers reviewing current studies about the use of mesenchymal stem cells (MSCs) for patients with hemorrhagic stroke found that continued research is warranted.

Research confirms that as norepinephrine levels drop, microglia wake up

Researchers found that in mice, microglia (immune cells of the central nervous system) are more active when the brain is quiet than when it is awake, due to norepinephrine signaling.

See all Neurology and Neurosurgery Clinical Trials at Mayo Clinic

Education

3rd Annual Mayo Clinic Advances and Innovations in Complex Neuroscience Patient Care: Brain and Spine 2020

Feb. 26-29, 2020 in Sedona, Ariz.
This course highlights complex nerve disorders including brain and skull base tumors; neurovascular diseases including arteriovenous malformations; and spinal disorders including scoliosis and epilepsy.

Multidisciplinary Neuro-Oncology Symposium: Updates in Medical and Surgical Management of Brain Tumors 2020

March 6-7, 2020, in Orlando, Fla.
This symposium offers evidence-based knowledge on the diagnosis and management of metastatic brain tumors, relevant to current medical practice.

Advances in Brachial Plexus Reconstruction: A Surgical Skills Course 2020

April 23-25, 2020, in Rochester, Minn.
Techniques covered in detail include adult and obstetrical brachial plexus injuries, surgical planning, supra- and infraclavicular exploration, various nerve transfers and grafting, secondary surgical reconstructions, obtaining grasp, and pain management.

Mayo Clinic Stimulation Therapies for Epilepsy 2020

Sept. 10-11, 2020, in Rochester, Minn.
Topics include surgical approach and programming for vagus nerve stimulation, repetitive nerve stimulation and deep brain stimulation. Participate in FDA-approved and investigational stimulation approaches and hands-on programming opportunities.

See all Neurology and Neurologic Surgery Continuous Professional Development courses

In the Video Center

Cybernetics and mapping the brain

Kai J. Miller, M.D., Ph.D., works to advance cybernetics so that patients with amyotrophic lateral sclerosis, brainstem stroke or a locked-in state are able to communicate independently, by controlling cursors through decoded brain signals.

Stroke systems of care

Neurosurgeon William D. Freeman, M.D., discusses systems of care for intracerebral hemorrhage. Topics include the reengineering of prehospital care, mesenchymal stem cell regeneration research and the shift toward minimally invasive surgery.

View Neurology and Neurosurgery specialty and Grand Rounds presentations

Consults and Referrals

Phoenix/Scottsdale, Arizona
844-464-0050 (toll-free)

Admission and Transfer Center (ATC) line for urgent/emergent referrals
480-342-1155

Jacksonville, Florida
844-275-1062 (toll-free)

Admission and Transfer Center (ATC) line for urgent/emergent referrals
904-717-0206

Rochester, Minnesota
844-384-4982 (toll-free)

Admission and Transfer Center (ATC) line for urgent/emergent referrals
507-255-2910

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507-405-0786

Neurosurgery
507-405-0873

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