



HEADACHE: The Highs & Lows of CSF Pressure Problems

SATURDAY and SUNDAY

MARCH 13-14, 2021

Virtual Meeting

For more information and to register,
visit:

[https://radiology.duke.edu/courses/headache
-the-highs-lows-of-csf-pressure-problems](https://radiology.duke.edu/courses/headache-the-highs-lows-of-csf-pressure-problems)

Course Director: Linda Gray Leithe, MD



Headache: The Highs & Lows of CSF Pressure Problems

This is a one and a half day course on CSF pressure problems as a secondary cause of headache, including intracranial hypotension and hypertension. It is intended to inform local neurologists, headache specialists, and other health care professionals including neurosurgeons, anesthesiologists, neuroradiologists, and pain management physicians about the varied presentations and the current state of diagnosis and treatment for disorders resulting from CSF pressure problems. In particular, these disorders can present as migraine, chronic migraine, new daily persistent headache, spontaneous intracranial hypotension (SIH), idiopathic intracranial hypertension, Chiari I malformations and intracranial hypertension as a complication of CSF leak treatment. SIH can also be iatrogenic status post lumbar punctures, epidural catheter placement and epidural injections.

Day 1 of this course will incorporate SIH, its clinical presentation, association with connective tissue disorders and POTS, MR imaging findings, the workup for detecting leaks and the types of leaks to look for. The approach to the diagnosis with CT guided lumbar puncture, myelograms, and minimally invasive techniques including fibrin glue and blood patching as well as surgical intervention will be discussed.

Day 2 of the course will discuss intracranial hypertension. Intracranial hypertension is the opposite side of the same coin as intracranial hypotension and can present as positional headache but also as chronic daily migraine. Its clinical presentation, imaging findings, medical treatment and venous stenting will be discussed.

Invited speakers include experts in neuroradiology, neurology-ophthalmology, internal medicine, headache, orthopedic surgery, and neurosurgery. Many cases will be presented throughout the discussions.

Educational Objectives

- Describe the clinical presentation and imaging manifestations of high and low CSF pressure disorders
- Present the current state of minimally invasive and surgical treatments for low CSF pressure disorders
- Identify the current medical and invasive treatments of high pressure CSF disorders

COURSE INFORMATION

JOINT ACCREDITATION STATEMENT

In support of improving patient care, the Duke University Health System Department of Clinical Education and Professional Development is accredited by the American Nurses Credentialing Center (ANCC), the Accreditation Council for Pharmacy Education (ACPE), and the Accreditation Council for Continuing Medical Education (ACCME), to provide continuing education for the health care team.



EDUCATION CREDITS

Duke University Health System Department of Clinical Education and Professional Development designates this live activity for a maximum of 11 *AMA PRA Category 1 Credit(s)*[™]. Physicians should claim only credit commensurate with the extent of their participation in the activity. Credit designation for technologists is pending.

NURSE CE

Duke University Health System Department of Clinical Education and Professional Development designates this activity for up to 11 credit hours for nurses. Nurses should claim only credit commensurate with the extent of their participation in the activity.

TECHNOLOGIST CE

Credit will be requested from The American Society of Radiologic Technologists (ASRT).

PATIENTS

Patients are welcome to register and attend.

FACULTY

Timothy J. Amrhein, M.D.

Associate Professor of Radiology
Director, Spine Intervention Service
Division of Neuroradiology
Duke University Medical Center
Durham, NC

Waleed Brinkijki, M.D.

Associate Professor of Radiology
and Neurosurgery
Mayo Clinic
Rochester, MN

Christopher R. Brown, M.D.

Assistant Professor of Orthopaedic Spine Surgery
Assistant Professor of Neurosurgery
Duke University Medical Center
Durham, NC

Ian Carroll, M.D.

Associate Professor of Anesthesiology
Perioperative and Pain Medicine
Stanford University Medical Center
Palo Alto, CA

Jeremy K. Cutsforth-Gregory, M.D.

Assistant Professor of Neurology
Mayo Clinic
Rochester, MN

Scott Davies, M.B.B.S.

Neuroradiologist
Neurological Intervention and Imaging Service
of Western Australia
Perth, Western Australia

Vinay Deshmukh, M.D., FACS

Neurotrauma & Specialty Surgery Credentialing
Committees
Carolinas Medical Center
Lead Neurosurgeon for NASCAR
Charlotte, NC

Deborah I. Friedman, M.D., MPH

Professor of Neurology & Neurotherapeutics
Professor of Ophthalmology
Director, Headache and Facial Pain Program
Chair, Intracranial Pressure Disorders
Integrated Project Team
UT Southwestern Medical Center
Dallas, TX

Andrew S. Griffin II, M.D.

Neurointerventional Radiologist
Mecklenburg Radiology
Charlotte, NC

J. Michael Hazenfield, M.D.

Assistant Professor of Radiology
Division of Neuroradiology
University of Cincinnati Medical Center
Cincinnati, OH

Isaac O. Karikari, M.D.

Associate Professor of Neurosurgery
Associate Professor of Orthopaedic Surgery
Duke University Medical Center
Durham, NC

Peter G. Kranz, M.D.

Associate Professor of Radiology
Chief, Division of Neuroradiology
Duke University Medical Center
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Linda Gray Leithe, M.D.

Associate Professor of Radiology
Division of Neuroradiology
Duke University Medical Center
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Patrick Luetmer, M.D.

Professor of Radiology
Division of Neuroradiology
Mayo Clinic
Rochester, MN

Michael D. Malinzak, M.D., Ph.D.

Medical Instructor of Radiology
Division of Neuroradiology
Duke University Medical Center
Durham, NC

Vincent Martin, M.D.

Professor of Medicine
Director, UC Headache and Facial Pain Center
University of Cincinnati Medical Center
Cincinnati, OH

Simy Parikh, M.D.

Assistant Professor
Jefferson Headache Center
Thomas Jefferson University Hospital
Philadelphia, PA

Jill Rau, M.D., Ph.D.

Post-doctoral Research in Headache Neurology
Mayo Clinic
Scottsdale, AZ

Wouter Schievink, M.D.

Professor of Neurosurgery
Director, Cerebrospinal Fluid Leak Program
Cedars-Sinai
Los Angeles, CA

AGENDA –

SATURDAY, MARCH 13

- 7:55 am Welcome from Course Director – Linda Gray Leithe, M.D.
- 8:00 am Clinical Presentation of Spontaneous Intracranial Hypotension (SIH)
Simy Parikh, M.D.
- 8:25 am Brain Imaging for SIH
Michael Malinzak, M.D., Ph.D.
- 8:50 am Spine Imaging for SIH
Peter Kranz, M.D.
- 9:15 am Dynamic Spine Imaging
Pat Luetmer, M.D.
- 9:40 am Discussion / Q & A
- 10:00 am Alternative Diagnosis for SIH (Chronic Daily Headache)
Vince Martin, M.D.
- 10:25 am POTS and Other Mimickers of Spinal CSF Leak
Jeremy Cutsforth-Gregory, M.D.
- 10:50 am Iatrogenic Causes of CSF Leaks
Ian Carroll, M.D.
- 11:15 am Percutaneous Therapy of CSF Leaks
Linda Gray Leithe, M.D.
- 11:35 am Interventional Therapy of CSF Venofistulas
Waleed Brinkijki, M.D.
- 11:55 am Discussion/Q & A
- 12:15 pm Lunch Break
- 1:00 pm Intradural Approach to CSF Leaks
Wouter Schievink, M.D.
- 1:25 pm Extradural Approach to CSF Leaks
Christopher Brown, M.D.
- 1:50 pm Combined Approach to CSF Leaks
Vinay Deshmukh, M.D.
- 2:15 pm Surgical Therapy of CSF Venofistulas
Isaac Karikari, M.D.
- 2:40 pm Discussion/Q & A
- 3:00 pm Adjourn



AGENDA –

SUNDAY, MARCH 14

8:00 am	Efficacy for Patching and Surgery Timothy Amrhein, M.D.
8:25 am	Clinical Symptoms of IIH and Therapy Deborah Friedman, M.D., MPH
9:00 am	High Pressure Imaging J. Michael Hazenfield, M.D.
9:25 am	Interventional Diagnosis and Stenting for IIH Andrew Griffin II, M.D.
9:50 am	Diagnosis and Treatment for Rebound High Pressure Post Patch Michael Malinzak, M.D., Ph.D.
10:15 am	Review of the Literature on CSF Pressure Disorders Jill Rau, M.D., Ph.D.
10:45 am	Issues in Initiating a Spinal CSF Leak Program in Australia Scott Davies, M.B.B.S.
11:15 am	Discussion/Q & A
11:45 am	Adjourn

REGISTRATION FEES

Physicians	\$100
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All Others (including patients)	\$50
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REGISTER ONLINE TODAY!

All registrations must be completed online. Please click on the following link to register:

<https://radiology.duke.edu/courses/headache-the-highs-lows-of-csf-pressure-problems>

The meeting will be held virtually using a platform called VConference Online. All registrants will receive information during the week prior to the meeting with log-in information. There will be opportunities for interaction with the speakers and other attendees

If you have a question regarding the course or registration, please call 919-684-7228.

Refund Policy

There is a \$15 administrative fee for cancellations. There are no refunds after March 1, 2021.

Cancellation Policy

Duke University Health System reserves the right to cancel or reschedule programs due to circumstances beyond its control or to close registration when programs are full.

