20th Annual Transcranial Doppler Course

When: August 28-30, 2026
Where: Live online, hosted from Seattle, USA (Time Zone PDT, UTC-7)

Prerequisite Lectures

Pre-recorded, online only. Available for viewing prior to start of course.
NOTE: TCD course attendees are expected to be familiar with or have viewed lectures #1-10 prior to starting the course.

1. Cerebrovascular Anatomy: Decoding the Matrix
   Aaron Stayman MD, RPNI
   Emily L. Ho MD PhD, RPNI
2. Foundations of Success with TCD: Physics and Instrumentation
   Leni Karr CPC, ELI-MP, RVT, NVS
3. Non-imaging TCD
   Brenda Rinsky, RVT, RDMS, NVS
4. Imaging TCD (TCDI or TCCD)
   Krislynn Barnhart, BS, RVT, NVS
5. Hemodynamics
   Leni Karr CPC, ELI-MP, RVT, NVS
6. Waveform Interpretation
   Krislynn Barnhart, BS, RVT, NVS
7. Collateral Flow
   Emily L. Ho MD PhD, RPNI
8. Recognizing Cerebral Emboli Using TCD
   Krislynn Barnhart, BS, RVT, NVS
9. TCD Bubble Study
   Ahmad Siyar, RVT, NVS
10. TCD Bubble Study Demonstration
    TCD Education Faculty

Bonus Video 1. Extrinsic Compression of Vertebral Arteries with Head Rotation
Bonnie Brown, RVT, NVS

Bonus Video 2. Subclavian Steal
Bonnie Brown, RVT, NVS

Bonus Video 3. Building a Neurovascular Laboratory
Brenda Rinsky, RVT, RDMS, NVS

Pre-course Meet & Greet – Monday, August 24

Live online using the 24-hour clock / military time.

1715 Zoom meeting: come online and meet some of the TCD course faculty. Help us continue to expand the community of TCD enthusiasts!

The recording has been posted on Vimeo. Please check your email for the link to view this event.

Day 1 – Friday, August 28

Pre-recorded and live webinar. All times listed are Pacific Daylight Savings Time (UTC-7) using the 24-hour clock / military time.

0730 Zoom waiting room will open

0745 Welcome and Introduction
Aaron Stayman MD, RPNI
Emily L. Ho MD, PhD, RPNI

0800 TCD Case Studies and Interpretation: the Normal TCD
Aaron Stayman MD, RPNI

0900 TCD Case Studies and Interpretation: Normal and Abnormal TCDs
Emily L. Ho MD, PhD, RPNI

0920 –Break–

0935 TCD Case Studies and Interpretation: Collateral Flow
Aaron Stayman MD, RPNI

1035 TCD Case Studies and Interpretation: Cerebral Emboli – What was that bloop?
Emily L. Ho MD, PhD, RPNI

1105 TCD Case Studies and Interpretation: Clinical Application of TCD Emboli Monitoring
Aaron Stayman MD, RPNI

1150 –Lunch Break–

1250 Endovascular Carotid Revascularization
Yince Loh MD, FNCS

1310 TCD Case Studies and Interpretation: Carotid Revascularization
Aaron Stayman MD, RPNI

1340 Sickle Cell Disease
"Bender" Michael Bender MD, PhD

1430 TCD Case Studies and Interpretation: STOP Protocol
Brenda Rinsky, RVT, RDMS, NVS

1450 –Break–

1505 TCD Case Studies and Interpretation: Cerebral Fat Emboli in Trauma
Emily L. Ho MD, PhD, RPNI

1545 Teamwork Matters: Panel Discussion
Leni Karr CPC, ELI-MP, RVT, NVS
Vanessa Tran, RVT, NVS
Aaron Stayman MD, RPNI
Emily L. Ho MD, PhD, RPNI

1615 Adjourn

Day 2 – Saturday, August 29

Pre-recorded and live webinar. All times listed are Pacific Daylight Savings Time (UTC-7) using the 24-hour clock / military time.

0730 Zoom waiting room will open

0745 Announcements
Aaron Stayman MD, RPNI
Emily L. Ho MD, PhD, RPNI

0800 Patent Foramen Ovale: Anatomy, Physiology, Diagnosis, and Treatment
Paul P. Huang, MD, MSC, FACC, FSCAI

0845 TCD Case Studies and Interpretation: Cardiac and PFO Cases
Aaron Stayman MD, RPNI

0930 –Break–

0945 Intracranial Stenosis
Aaron Stayman MD, RPNI

1025 Vasomotor Reserve
Emily L. Ho MD, PhD, RPNI

1105 TCD Case Studies and Interpretation: Intracranial Stenosis and Vasomotor Reserve
Aaron Stayman MD, RPNI
Emily L. Ho MD, PhD, RPNI

1225 –Lunch Break–

1325 Using TCD in Clinical Decision Making: Case Studies
Aaron Stayman MD, RPNI

1415 Subarachnoid Hemorrhage and Vasospasm: Pathology and Pathophysiology
James F. Wang, MD RPNI

1455 –Break–

1510 TCD in Traumatic SAH with Case Studies
Alan J. Velander II, MD RPNI

1605 Intracranial Pressure and Optic Nerve Sheath Diameter Measurement
Emily L. Ho MD, PhD, RPNI

1645 Adjourn

Day 3 – Sunday, August 30

Pre-recorded and live webinar. All times listed are Pacific Daylight Savings Time (UTC-7) using the 24-hour clock / military time.

0730 Zoom waiting room will open

0745 Announcements
Aaron Stayman MD, RPNI
Emily L. Ho MD, PhD, RPNI

0800 POCUS TCD for Decision Making in Critical Care
Sebina Bulic MD, RVT
F. Philip Tarzi MD

0845 TCD in Elevated ICP and Cerebral Circulatory Arrest
Arthur Lam, MD, FRCP, FNCS

0930 TCD Case Studies and Interpretation: Critical Care
Aaron Stayman MD, RPNI
Arthur Lam, MD, FRCP, FNCS

1040 TCD Case Studies and Interpretation: More Critical Care
Emily L. Ho MD, PhD, RPNI

1125 Final Announcements, Q&A

1145 Adjourn

Faculty

Aaron N. Stayman MD, RPNI
Swedish Medical Center

Emily L. Ho MD, PhD, RPNI
Swedish Medical Center

Leni Karr RVT, NVS, CPC, ELI-MP
Leading Edge Insight LLC

Krislynn Barnhart, BS, RVT, NVS
Philips Healthcare

"Bender" Michael Bender, MD, PhD
Fred Hutchison Cancer Center

Bonnie Brown, RVT, NVS
Pacific Vascular Inc.

Sebina Bulic, MD, RVT
University of Southern California

Paul P. Huang, MD, MSC, FACC, FSCAI
Swedish Medical Center

Arthur Lam, MD, FRCP, FNCS
Swedish Medical Center
University of San Diego

Brenda Rinsky, RVT, RDMS, NVS
Independent Contractor

Ahmad Siyar, RVT, NVS
Swedish Medical Center

Jill Sommerset RVT, FSVU
HOPE Vascular and Podiatry
Advanced Vascular Centers
Washington State University

F. Philip Tarzi, MD
University of Southern California

Vanessa Tran, RVT, NVS
Harborview Medical Center
University of Washington

Alan J. Velander II, MD, RPNI
LCMC Health
LSU Health New Orleans

James F. Wang, MD, RPNI
Swedish Medical Center

Course Planning Committee

Aaron N. Stayman MD RPNI
Emily L. Ho MD PhD RPNI
Leni Karr RVT NVS CPC ELI-MP
Jill Sommerset RVT FSVU

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the Washington State University (WSU) Elson S. Floyd College of Medicine and TCD Education. The WSU Elson S. Floyd College of Medicine is accredited by the ACCME to provide continuing medical education for physicians.

The WSU Elson S. Floyd College of Medicine designates this live activity for a maximum of 25.5 AMA PRA Category 1 Credit™. Participants should claim only the credit commensurate with the extent of their participation in the activity.

Current as of August 27, 2026. Subject to change.
For more information, please go to TCD.education