



# Transcranial Doppler Imaging

In today's competitive and dynamic healthcare climate, it is critical to use your medical imaging systems to their fullest potential. Our goal at Philips Healthcare is to provide the clinical education you need to make the most of your equipment investment.

### Philips Ultrasound University Vascular 370

Transcranial Doppler Imaging (TCDI) is a non-invasive vascular duplex test used to evaluate the circle of Willis and the vertebrobasilar arteries using various acoustic windows. The examination is a very useful tool for the identification and monitoring of intracranial vasospasm; identification and monitoring of vasculopathy in patients with Sickle Cell anemia; assessment of brain death; intraoperative monitoring of intracranial flow during surgery; and many other clinical applications.

This course goes beyond the fundamentals to explore how TCDI is used in the diagnosing and monitoring cerebral vasospasm, sickle cell disease, intraoperative monitoring, assessing for Brain Death, functional reserve testing as well as the diagnosis of PFO using TCDI bubble study.

# Fundamentals of Transcranial Doppler Imaging (VASC270)



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“Philips Ultrasound Clinical Education has developed a solid one-day program to meet the needs of those sonographers who are interested in learning another exam type that will enable them to serve a wider population of patients with neurological disorders. With an experienced team of instructors and an ideal combination of lecture and one-on-one, hands-on training, this course is an excellent learning experience available for sonographers looking to re-energize their careers and add this fascinating modality to their skillset.”

## Course objectives

Upon completion of this course, the learner should be able to:

- Fully understand the normal intracerebral arterial anatomy and collateral pathways
- Explain and discuss proper indications for TCDI
- Explain and discuss the basic imaging principles of Transcranial Doppler Imaging
- Describe acoustic windows, equipment and technique for a complete exam.
- Describe typical depths, flow velocities and spectral Doppler waveforms morphology for normal cerebral circulation.
- Explain the effects extracranial arterial stenosis/occlusion has on the cerebral circulation.
- Identify the limitations of TCDI
- Demonstrate the appearance of focal intracranial arterial stenosis or occlusion.
- Describe how TCDI is used in the diagnosing and monitoring cerebral vasospasm, sickle cell disease, intraoperative monitoring, assessing for Brain Death, functional reserve testing as well as the diagnosis of PFO using TCDI bubble study.

## Audience

This course is for physicians and sonographers interested in learning another exam type that will enable them to serve a wider population of patients with neurological disorders

## Prerequisite

This course is intended for either practicing sonographers or physicians with some prior TCDI scanning experience who want to learn how to evaluate the intracerebral arterial circulation with ultrasound.

## Faculty

- Muhammad Hasan, MBBCh, RVPI, RVT
- Philips Clinical Education Specialists

## Locations

Course may be held in Philips central locations in Alpharetta, Georgia; Bothell, Washington; and Cleveland, Ohio. Other locations may be offered.



## For more information

Contact a Philips ultrasound clinical services coordinator at 800-522-7022 and visit our education catalog at

[www.learningconnection.philips.com/ultrasound](http://www.learningconnection.philips.com/ultrasound)

