



# Introduction to Carotid Duplex / Color Flow Imaging

October 23-25, 2017

Monday, October 23, 2017		
7:45	Welcome and Continental Breakfast	
8:00	Interactive Polling Session	
8:15	Doppler & Color Fundamentals	Lori Green, BA, RT(R), RDMS, RDCS, RVT
10:00	Break	
10:15	Carotid Anatomy & Physiology	Brian Schenker, MBA, RDMS, RVT
11:00	Break	
11:15	Normal Spectral Analysis	Lori Green, BA, RT(R), RDMS, RDCS, RVT
11:45	Carotid Scan Protocol	Brian Schenker, MBA, RDMS, RVT
12:30	Lunch	
1:30	Hands-On Scanning	
5:00	Adjourn	

Tuesday, October 24, 2017		
7:45	Continental Breakfast	
8:00	Disease Progression	Bill Schroedter, BS, RVT, FSVU
8:30	Stenosis Assessment Part I	
9:15	Break	
9:30	Live Scanning Demo	
10:15	Break	
10:30	Stenosis Assessment Part II & Case Studies	
11:30	Break	
11:45	Three of a Kind: Interactive Review of Carotid Imaging Pitfalls	
12:30	Lunch	
1:30	Hands-On Scanning / Case Studies / Interpretation Sessions	
5:00	Adjourn	

Wednesday, October 25, 2017		
7:45	Continental Breakfast	
8:00	Intima-Media Thickness: Measurement & Evaluation	Phil Bendick, Ph.D., RVT, FSDMS, FSVU
8:30	Break	
8:45	Interactive Interpretation “Challenging Case Studies”	
10:00	Break	
10:15	Non-Atherosclerotic Carotid Abnormalities	
11:00	TCD Basics	
11:45	Interactive Polling Session with discussion	
12:00	Lunch	
1:00	Hands-On Scanning / Case Studies & Structuring a Report Session	Phil Bendick, Ph.D., RVT, FSDMS, FSVU
4:30	Adjourn	



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The Gulfcoast Ultrasound Institute is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The Gulfcoast Ultrasound Institute designates this live educational activity for a maximum of **24.0 AMA PRA Category 1 Credits™**. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Approved by the ASRT for 22.5 Category A continuing education credit.

Successful completion of this CME activity, which includes participation in the evaluation component, enables the participant to earn up to 24 MOC points in the American Board of Internal Medicine's (ABIM) Maintenance of Certification (MOC) program. Participants will earn MOC points equivalent to the amount of CME credits claimed for the activity. It is the CME activity provider's responsibility to submit participant completion information to ACCME for the purpose of granting ABIM MOC credit.

### NEEDS STATEMENT:

The planning committee has determined a need for the following educational activity based on request from the medical community, expanded utilization of ultrasound, and lab accreditation requirements.

### COURSE OBJECTIVES:

*At the completion of the program the participant should be able to:*

1. Increase the participants' knowledge to better perform and/or interpret Carotid Duplex/Color Flow Imaging ultrasound examinations.
2. Apply knowledge of the anatomy/physiology of the cerebrovascular system into the Carotid Duplex examination.
3. Cite Doppler/color physics principles and be able to (sonographers) apply these principles to optimize system controls and/or (physicians) utilize this information for identifying technical errors which may result in misdiagnosis.
4. Perform routine scan protocols, and Doppler calculations in a complete carotid duplex/color examination.
5. Differentiate normal/abnormal spectral Doppler/color characteristics.
6. List methods for obtaining quantitative information and state the diagnostic relevance of each measurement.
7. Characterize plaque morphology and other pathology associated with cerebral vascular disease.
8. Perform Intima-Media Thickness measurements and state the clinical significance as a screening method for cardiovascular disease.
9. Integrate the information to include and prepare a structured report for a carotid ultrasound examination.
10. Apply diagnostic criteria for accurate interpretation of carotid duplex/color flow examinations

While offering CME credit hours this activity is not intended to provide extensive training or certification for performance of or interpretation of Carotid Ultrasound Examinations. We recommend working under supervised conditions until an acceptable level of proficiency has been achieved.

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*A special thanks to the following ultrasound equipment manufacturers who provide various (in kind) equipment support to help make our programs possible (companies listed are as of the time of printing).*



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## **Disclosure of Relevant Relationships With Commercial Companies/Organizations**

Gulfcoast Ultrasound Institute, Inc. endorses the standards and essentials of the Accreditation Council for Continuing Medical Education for activities and the speakers at these activities disclose relevant relationships with commercial companies.

Speakers having relevant relationships include receiving from a commercial company research grants, consultancies, honoraria and travel, or having a self-managed equity interest in a company.

### **FACULTY:**

**Phil Bendick, Ph.D., RVT, FSDMS, FSVU**  
Vascular Ultrasound Consultant  
Vass, North Carolina  
*No relevant financial relationships to disclose*

**William B. Schroedter, BS, RVT, FSVU**  
Vice-President  
Quality Vascular Imaging, Inc  
Venice, FL  
*No relevant financial relationships to disclose*

**Lori Green, BA, RT, RDMS, RDCS, RVT**  
President, Program Director  
Gulfcoast Ultrasound Institute, Inc.  
St. Pete Beach, FL  
*No relevant financial relationships to disclose*

**Brian Schenker, MBA, RDMS, RVT**  
Program Coordinator  
Gulfcoast Ultrasound Institute, Inc.  
St. Pete Beach, FL  
*No relevant financial relationships to disclose*

\* Please see next page for details regarding content review and control of content



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## **Disclosure of Individuals in Control of Content**

*In addition to the faculty listed on the previous page the following individuals are recognized by GUI as being in control of content of this program:*

**James Mateer, MD, RDMS (Medical Director-planner & QI Task Force)**

Medical Director, Gulfcoast Ultrasound Institute

No relevant financial relationships to disclose.

**Andreas Dewitz, MD, RDMS (Member of Advisory Board & QI Task Force)**

Associate Professor of Emergency Medicine

Vice Chair of Ultrasound Education

Boston Medical Center

Boston, MA

No relevant financial relationships to disclose

**Content:**

***All content for this CME activity were reviewed and approved by member(s) of the GUI staff to determine content validity and ensure that no conflicts of interest exist prior to final course material compilation and printing.***

Reviewed & approved:

# ***Welcome!!***



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The entire staff at Gulfcoast Ultrasound Institute would like to welcome you to our educational facility.

Our goal is to provide the highest quality continuing education possible in a relaxed and personal atmosphere. The content of each program has been carefully planned to provide you with the information needed to obtain a firm foundation to begin gaining the experience to perform and/or interpret ultrasound examinations in the specialty of your choice. The program will be structured with lectures in the morning and hands-on sessions during the afternoon to allow more individualized attention the program participants will be divided into groups for the hands-on workshops based on your experience level and type of equipment you work with.

*To help you get the most out of this program we would like to make the following recommendations:*

1. Attend the lectures and scheduled hands-on sessions.
2. When you are not involved in a scheduled afternoon session, take advantage of the SUPPLEMENTAL SCANNING WORKSHOP or check out a video tape from our library to watch on one of the review stations located in the break room.
3. If you do not understand a particular concept ASK FOR HELP!
4. Study your course workbook during the evening.
5. Remember excellence is not achieved overnight. Becoming proficient in any ultrasound specialty requires the commitment to continually study, and perform multiple (at least 100) exams before an initial level of confidence is achieved. The AIUM guidelines suggest competency for interpretation requires a minimum of 500 exams per specialty.
6. Begin scanning immediately upon return to the ultrasound departments even if it's on a volunteer. We recommend scanning/interpretations under supervised conditions until an accepted level of proficiency has been obtained.

All of our instructors, guest speakers and office staff are here to serve you! If you have any questions of any kind, please do not hesitate to ask.



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## ***Gulfcoast Ultrasound Institute*** **EQUIPMENT RECOMMENDATIONS**

Throughout the past 32 years Gulfcoast Ultrasound Institute has taken great pride in our ability to provide quality continuing education programs while remaining unbiased regarding the recommendation of ultrasound equipment.

Our programs are supported by most of the major equipment manufacturers by providing their systems for use during the hands-on sessions. These companies have learned their products will be used and demonstrated to the best of our abilities in an educational setting and that no selling or promotion is done on our premises.

We realize that some of the course participants may currently be in the process of evaluating equipment for purchase and would like the opinions of our staff to determine the "best" system for your department. Everyone has a "favorite" ultrasound system (usually because it is the one they have worked with the most and are comfortable with) however, Gulfcoast Ultrasound must take an unbiased position in regards to equipment recommendations.

If you are currently evaluating equipment for purchase we suggest you invite the equipment manufacturers to your facility for a private demonstration to determine image quality, ease of use, over-all capabilities etc. on an individual basis.

Thank you!

A handwritten signature in black ink that reads "Lori Green" followed by a long horizontal line and then the text "BA, RT, RDMS, RDCS, RVT".

Lori Green, BA, RT, RDMS, RDCS, RVT  
Program Director