

# Aortic Valve Disease FocusClass - coming soon (Q4 2024)

The Aortic Valve Disease FocusClass offers a comprehensive overview of diagnosing and managing aortic stenosis (AS) and aortic regurgitation (AR) using ultrasound. The course covers essential topics such as the basics of aortic valve disease, causes, echocardiographic assessment, and advanced quantification techniques. Learners will explore both theoretical aspects and practical demonstrations, including case studies on bicuspid and tricuspid valves, Doppler spectrum analysis, and planimetry. With structured lectures, practical demonstrations, and interactive quizzes, this course is designed to provide sonographers, radiologists, and clinicians with a solid foundation in assessing aortic valve pathologies. The flexible format allows for self-paced learning, combining theoretical knowledge with hands-on ultrasound application.



#### Chapter 1 CME

### Aortic Stenosis - Basics

Introduction, epidemiology, and the impact of AS. Understanding the hemodynamics and symptoms associated with aortic valve disease.

#### Chapter 2 CME

### Aortic Stenosis - Causes

Detailed look into congenital and acquired causes of AS and AR. Examination of bicuspid and tricuspid valves, rheumatic AS, and radiation-induced AS.

#### Chapter 3 CME

### Aortic Stenosis - Echo Assessment of AS

Understanding aortic valve morphology and its assessment using ultrasound. Evaluation of additional findings in AS and left ventricular function (LVF) assessment.

#### Chapter 4 CME

# Aortic Stenosis - Quantification of AS

Overview and methodologies for quantifying AS using Doppler and planimetry. Focus on measuring gradients, assessing aortic valve area (AVA), and handling complex cases like low-flow, low-gradient AS.

#### Chapter 5 CME

### Aortic Stenosis - Special Circumstances

Evaluating AS in special conditions such as atrial fibrillation, LVOT obstruction, and pressure recovery.

#### Chapter 6 CME

# Aortic Stenosis - Management of AS

Indications for intervention, selection between TAVR (Transcatheter Aortic Valve Replacement) or SAVR (Surgical Aortic Valve Replacement), and echo assessment pre- and post-TAVR.

#### Chapter 7 CME

### Aortic Regurgitation - Basics

Introduction and Epidemiology. Symptoms and Other Imaging Modalities: Understanding clinical symptoms and the role of additional imaging methods in detecting AR.

#### Chapter 8 CME

### Aortic Regurgitation - Causes

A detailed breakdown of the various congenital and acquired causes of AR, offering insights into the most common and rare etiologies.

#### Chapter 9 CME

# Aortic Regurgitation - Hemodynamics and Echocardiographic Findings

Hemodynamics: A focus on the hemodynamic changes associated with AR and how they impact cardiac function. Echofindings: A thorough review of typical echocardiographic features of AR, including acute AR and multivalvular disease.

Chapter 10 CME

### Aortic Regurgitation - Quantification of AR

Principles of Quantification: Methods for assessing the severity of AR, including imaging the color jet, pressure half-time, and visual assessment techniques. Retrograde Flow and Volumetric Calculations: Advanced techniques for measuring regurgitant flow and volumetric assessments of AR, including real-world demonstrations. Role of TEE: The application of transesophageal echocardiography (TEE) in evaluating AR, particularly in complex cases.

# Aortic Regurgitation - Therapy

Indication for Surgery: Guidelines for when surgical intervention is necessary, based on the latest evidence. Follow-Up and Conclusion: Best practices for long-term monitoring of patients with AR and concluding remarks on treatment approaches.