



# Echo MasterClass

The Echo MasterClass is a premium online training program that will bring your echo skills to the next level: "A complete mastery of Echocardiography". With over 30 hours of high-quality video content, you will significantly deepen your knowledge of cardiac anatomy, function, clinical cardiology, imaging, hemodynamics and patient management.

**34**  
CME credits

**24**  
Chapters

**178**  
Lectures

**23**  
Quizzes

## Chapter 1 | CME

### Free lectures

Learn more about Imaging tips – How to diagnose an apical thrombus; Imaging skills in prosthetic aortic valves; Pitfall in aortic stenosis!

#### Lectures & Quizzes:

- Free lecture 1
- Free lecture 2
- Free lecture 3

## Chapter 2 | 2.5 CME

### Principles of Echocardiography (updated chapter)

This chapter will give you just enough background to really understand what echocardiography is about. Since we know that you don't want to become a physicist, we will stick to what really matters. You will also learn in this chapter how to use the scanner and what you can do to optimize your images.

#### Lectures & Quizzes:

- Physics - Introduction
- 2D
- Artefacts
- Optimizing the 2D image
- M-Mode
- Flow Dynamics
- Spectral Doppler
- Color Doppler
- Summary
- 01. Principles of Echocardiography Quiz

## How to Image

This chapter will teach you hands-on wisdom of echocardiography: echo windows and views as well as practical tips that no one will ever teach you during on-site courses and that you also won't find in books. This chapter is rich in demos that show you how to scan.

### Lectures & Quizzes:

- How to Image - Basics
- Parasternal Window - Part 1 Parasternal Long Axis
- Parasternal Window - Part 2 Parasternal Short Axis
- Apical Window - Part 1
- Apical Window - Part 2
- Subcostal Window
- Suprasternal Window
- M-Mode
- Doppler - Part 1
- Doppler - Part 2
- How to Image - Summary
- 02. How to Image Quiz

## Heart Chambers and Walls

Echo anatomy can be hard to grasp. Upon completion of this chapter, you will know exactly where and how to find the different cardiac structures and how to quantify the size and function of the heart chambers.

### Lectures & Quizzes:

- LV
- Myocardial Mechanics + Hemodynamics
- Left Ventricular Function
- Ejection Fraction - Pitfalls
- RV
- Basics of Left Ventricular Hypertrophy
- LVH - Quantification and Findings
- LVH - Differential Diagnosis
- LA
- RA
- Summary
- 03. Heart Chambers and Walls

## Diastolic Dysfunction (updated chapter)

This chapter deals with the difficult topic of diastolic dysfunction – we'll try to make it easy for you. Take a look at the section "a simple approach" and you will see how diastology can help you in your daily clinical practice.

### Lectures & Quizzes:

- Introduction / Why and what
- Physiology
- Assessment of Diastolic Dysfunction - measurements Part 1
- Assessment of Diastolic Dysfunction - measurements Part 2
- Assessment of Diastolic Dysfunction - Guidelines
- Simple approach to diastolic function
- Specific situations
- 04. Diastolic Dysfunction Quiz

## Dilated Cardiomyopathy

Left ventricular function is not the only thing to look at in patients with dilated cardiomyopathy. In this chapter you will see how echo can help you understand symptoms, prognosis and treatment options for such patients.

### Lectures & Quizzes:

- Dilated Cardiomyopathy Part 1
- Dilated Cardiomyopathy Part 2
- Dilated Cardiomyopathy Part 3
- Dilated Cardiomyopathy Part 4
- 05. Dilated Cardiomyopathy Quiz

## Hypertrophic Cardiomyopathy

Hypertrophic cardiomyopathy, hypertensive heart disease, and athlete's heart have very similar features. In this chapter you will learn more about these features and find out how you can distinguish between them. You will also learn how echo can help you assess the risk for sudden cardiac death.

### Lectures & Quizzes:

- Basics
- Evaluation I
- Evaluation II
- Cases
- Summary
- 06. Hypertrophic Cardiomyopathy Quiz

## Restrictive CMP

This is a rare disease, indeed. However, as an echocardiographer you should be able to recognize it. In this chapter, we will teach you some useful tips and tricks for making the right diagnosis.

### Lectures & Quizzes:

- Basics
- Forms
- Summary
- 07. Restrictive CMP Quiz

## Coronary Artery Disease (updated chapter)

Have you ever struggled with the assessment of regional wall motion abnormalities? Can you differentiate ischemic from dilated cardiomyopathy? In this chapter you will find lots of examples and background knowledge that will help you to excel.

### Lectures & Quizzes:

- Introduction
- Segmental Approach
- Wall Motion
- Remodeling
- Differential Diagnosis
- Complications - Part 1
- Complications - Part 2
- 08. Coronary Artery Disease Quiz

### Chapter 10 | 1 CME

## Aortic Stenosis

Is aortic stenosis present? Is it severe? Is surgery required? Are new treatment options an alternative? This chapter will answer your questions.

### Lectures & Quizzes:

- Basics
- Quantification
- Special Circumstances
- Surgery
- Sub/Supravalvular
- Summary
- 09. Aortic Stenosis Quiz

### Chapter 11 | 1 CME

## Aortic Regurgitation

In this chapter you will learn to understand the hemodynamics of "volume overload" and learn more about our integrative approach towards assessing aortic regurgitation. You will see more than others by following our step-by-step approach.

### Lectures & Quizzes:

- Basics
- Quantification
- Acute AR
- Surgery
- Summary
- 10. Aortic Regurgitation Quiz

### Chapter 12 | 1 CME

## Mitral Stenosis

This chapter deals with the different features of rheumatic heart disease. Among other things, you will find out about the pitfalls when trying to quantify the severity of mitral stenosis.

### Lectures & Quizzes:

- Mitral Stenosis - Principles
- Mitral Stenosis - Hemodynamics
- Mitral Stenosis - Grading Part 2 - Gradients
- Mitral Stenosis - Valvuloplasty

- Mitral Stenosis - Features
- Mitral Stenosis - Grading Part 1 Planimetry
- Mitral Stenosis - Summary
- 11. Mitral Stenosis Quiz

Chapter 13 | 1.75 CME

## Mitral Regurgitation

This chapter will provide you with in-depth knowledge that will help you determine the severity of mitral regurgitation. You will learn which factors determine whether a patient should undergo valve surgery and what the mechanism of mitral regurgitation is. A special section will be dedicated to practical issues such as how to view the specific portions of the mitral valve and how to find the origin of a jet.

### Lectures & Quizzes:

- Principles
- MVP
- Flail
- Other Causes
- Quantification
- Mechanisms
- Surgery
- Summary
- 12. Mitral Regurgitation Quiz

Chapter 14 | 1 CME

## Tricuspid Valve Disease

We like the tricuspid valve and you should like it, too. It is often overlooked even though there are many conditions that can affect the tricuspid valve. As a matter of fact, tricuspid regurgitation is common! In this chapter you will learn more about tricuspid valve pathologies, how to image them, and what the sequels are.

### Lectures & Quizzes:

- Basics
- TR Causes
- TR Quantification
- TS
- Summary
- 13. Tricuspid Valve Disease Quiz

Chapter 15 | 1.75 CME

## Prosthetic Valves

Prosthetic valves can be a blessing if they work and a curse if they don't. Can you tell from the echo which valve was implanted? Does the patient have prosthetic valve dysfunction? What are the pitfalls and limitations of echo in this patient group? This chapter will answer these and other questions.

### Lectures & Quizzes:

- Types
- Assessment I
- Assessment II
- Repair
- Summary
- 14. Prosthetic Valves Quiz

- Complications

## Chapter 16 | 4 CME

# Endocarditis (updated chapter)

In this chapter, we cover a wide array of subjects through engaging lectures and real-world examples, including Introduction to Endocarditis, Native Valve Endocarditis, Complications of Endocarditis, Right Heart Endocarditis, Prosthetic Valve Endocarditis, Pacemaker and Central Line Endocarditis, Non-Bacterial Endocarditis, and Guiding Patient Management.

### Lectures & Quizzes:

- Overview - Definition and Epidemiology
- Overview - Clinical Manifestations
- Overview - Pathophysiology
- Overview - Microbiology
- Overview - Manifestation
- Overview - Diagnosis - Role of Echocardiography
- Overview - Other Imaging Modalities
- Overview - Mortality and Risk
- Overview - Prevention
- Native Valve Endocarditis - Location / Classification
- Native Valve Endocarditis - Diagnostic Challenges / Scenarios
- Native Valve Endocarditis - Fungal Endocarditis
- Native Valve Endocarditis - Differential Diagnosis
- Native Valve Endocarditis - Your turn to diagnose endocarditis!
- Native Valve Endocarditis - Associated Findings
- Complications of Native Valve Endocarditis - Overview
- Complications of Native Valve Endocarditis - Septic Embolism
- Complications of Native Valve Endocarditis - Valvular Destruction
- Complications of Native Valve Endocarditis - Regurgitation
- Complications of Native Valve Endocarditis - Paravalvular Complications
- Right Heart Endocarditis - Basics
- Right Heart Endocarditis - Imaging
- Right Heart Endocarditis - Examples
- Right Heart Endocarditis - Management
- Prosthetic Valve Endocarditis - Facts
- Prosthetic Valve Endocarditis - Classification
- Prosthetic Valve Endocarditis - Diagnostic Challenges
- Prosthetic Valve Endocarditis - Differential Diagnosis
- Prosthetic Valve Endocarditis - Examples
- Prosthetic Valve Endocarditis - Complications - Part 1
- Prosthetic Valve Endocarditis - Complications - Part 2
- Prosthetic Valve Endocarditis - TAVI Endocarditis
- Pacemaker and Central Line Endocarditis - Basics
- Pacemaker and Central Line Endocarditis - Presentation + Risk factors
- Pacemaker and Central Line Endocarditis - Case Examples
- Pacemaker and Central Line Endocarditis - Management
- Pacemaker and Central Line Endocarditis - CVL Endocarditis - Basics
- Pacemaker and Central Line Endocarditis - CVL Endocarditis - Case Examples / Prevention
- Non-Infective Endocarditis - Overview
- Non-Infective Endocarditis - Case Examples
- Management of IE - Principles
- Management of IE - Indications for Surgery
- Management of IE - Antibiotics
- Management of IE - Guidelines
- Management of IE - Case Examples
- Summary - Putting it all together
- Summary - Reporting
- EMC - Endocarditis (updated chapter 2023)

## Chapter 17 | 1.5 CME

# Right Heart Disease

Early diagnosis of pulmonary hypertension is crucial for the prognosis of patients with pulmonary hypertension.

Echocardiography is the primary diagnostic tool to do so. In this chapter we will show you how to detect pulmonary hypertension and what to do if direct measurement of pulmonary pressure using the tricuspid valve signal is not possible.

#### Lectures & Quizzes:

- Basics
- Assessment 1
- Assessment 2
- Diseases
- Overload
- 16. Right Heart Disease Quiz

#### Chapter 18 | 1 CME

## Aortic Disease

The aorta can also be visualized with echo! In this chapter we will show you how. Diseases such as aortic aneurysms, dissection, aortic syndromes, and congenital abnormalities of the aorta will be covered.

#### Lectures & Quizzes:

- Imaging
- Basics
- Dissection
- Findings
- Coarctation
- Summary
- 17. Aortic Disease Quiz

#### Chapter 19 | 1 CME

## Pericardial Disease

Many problems may affect the pericardium - some of them are life-threatening. Just think of tamponade. The emergency echo tips in this chapter might save you next time you are on call at night. So you'd better get started!

#### Lectures & Quizzes:

- Pericardial Disease
- Tamponade
- Constriction
- Other Diseases
- Summary
- 18. Pericardial Disease Quiz

#### Chapter 20 | 1.5 CME

## Tumors and Masses

In this chapter you will learn how echocardiography can support you in recognizing different tumors and masses. We will teach you some simple mnemonics that will help you memorize the most common problems once you're back with your patients.

#### Lectures & Quizzes:

- Tumors and Masses Part 1
- Tumors and Masses Part 2
- Tumors and Masses Part 3

- Tumors and Masses Part 4
- Tumors and Masses Part 5
- 19. Tumors and Masses Quiz

Chapter 21 | 1.5 CME

## Congenital Heart Disease

In this chapter you will find out more about the most common congenital defects in an adult population. We are dealing with shunt lesions such as atrial and ventricular septal defects and ductus arteriosus. Other congenital defects are covered in other chapters (disease of the aorta, aortic valve disease, tricuspid valve, etc.)

### Lectures & Quizzes:

- Congenital Heart Disease Part 1a
- Congenital Heart Disease Part 1b
- Congenital Heart Disease Part 2
- Congenital Heart Disease Part 3
- 20. Congenital Heart Disease Quiz

Chapter 22 | 1 CME

## Echo in CRT

In this chapter you will learn how do detect dyssynchrony, why it is important for the development of heart failure and what Resynchronization Therapy (CRT) is. A separate lecture deals with the optimization of CRT therapy

### Lectures & Quizzes:

- CRT Part 1
- CRT Part 2
- CRT Part 3
- CRT Part 4
- 21. Echo in CRT quiz

Chapter 23 | 1 CME

## Contrast Echo

Here you will learn why contrast echocardiography is so important and where you can use it. We will focus both on right- and left heart contrast studies and show you which agents are available. Here you will learn how to detect a patent foramen ovale, a thrombus in the apex and much much more. Again you will see lots of examples.

### Lectures & Quizzes:

- Contrast Echo Part 1
- Contrast Echo Part 2
- 22. Contrast Echo quiz

Chapter 24 | 0.25 CME



# 3D Echo

Three-dimensional echocardiography is a hot topic. In this chapter we will explain how it works and in which ways you can use it. We will discuss topics such as full volume- and multibeam acquisition, multiplane imaging and live 3D. Both transthoracic and transesophageal applications of 3D echo are discussed. This chapter is full of spectacular images.

## Lectures & Quizzes:

- 3D Echo Part 1
- Clinical Applications Part 1
- Clinical Application Part 2
- 23. 3D Echo quiz