



# Abdominal Ultrasound BachelorClass

The Abdominal Ultrasound BachelorClass introduces you to one of the most important ultrasound modalities in medicine. You will be enabled to master even the most critical situations and learn all you need to apply Ultrasound in your clinical practice.

10

CME credits

13

Chapters

34

Lectures

12

Quizzes

Chapter 1 | 0.75 CME

## Abdominal BachelorClass - free chapter

Your starting point into the world of abdominal ultrasound. Meet your teachers Ulrike and Christian. Six different case reports from our lab that will show you how powerful abdominal ultrasound is. Learn how to perform an ultrasound scan on the urinary bladder and the gallbladder.

### Lectures & Quizzes:

- Free lecture 1
- Free lecture 2
- Quiz - Free chapter

Chapter 2 | 0.75 CME

## Ultrasound basics and artifacts

Meet the star of this course: the ultrasound wave! Principles of scanning. How to obtain really good images. How to optimize your settings and adjustments on the machine. Safety aspects. Understand the most important ultrasound artifacts and use them to your advantage.

### Lectures & Quizzes:

- Artifacts
- Ultrasound basics
- Quiz - Ultrasound basics and artifacts

Chapter 3 | 1 CME

# Liver sonography part 1

The liver is the second largest organ in our body. We start with a review of the relevant anatomic features and the important structures surrounding the liver - we will show you how to scan the liver in the standard imaging planes systematically, including the "emergency view" of the liver. Also see the course regarding how to perform a thorough liver scan.

## Lectures & Quizzes:

- Liver: Anatomy and How to image (basics)
- Liver: How to image 1
- Liver: How to image 2
- Quiz - Liver sonography part 1

## Chapter 4 | 1 CME

# Liver sonography part 2

Learn how to detect and distinguish diffuse liver diseases like liver congestion, steatosis and liver cirrhosis as well as focal liver lesions with your magic ultrasound wand - we'll take you there! What does a snowball have in common with liver lesions? You'll find out here. After completing this chapter, you will definitely be able to differentiate between the most common liver pathologies in ultrasound. Three case reports included - test your knowledge!

## Lectures & Quizzes:

- Liver: Case reports
- Liver pathologies - Focal lesions
- Liver pathologies - Diffuse diseases
- Quiz - Liver sonography part 2

## Chapter 5 | 0.75 CME

# Gallbladder

How can I detect gallstones with ultrasound? What are the criteria for cholecystitis? What are the sonographic signs for cholestasis? In this chapter we will teach you not only how to successfully find and scan the gallbladder but also how to detect and distinguish the most important pathologies of the gallbladder and the bile ducts.

## Lectures & Quizzes:

- Gallbladder: Anatomy and How to image
- Gallbladder: Pathologies
- Quiz - Gallbladder

## Chapter 6 | 1 CME

# Kidney sonography

We'll start with a review of the anatomic features and go on with the different approaches and scan planes for both kidneys - getting you ready for evaluating renal pathologies like hydronephrosis, urinary tract stones, renal cysts and tumors and the atrophic kidney disease. You will see how the kidneys can vary in size, form and position - we will make sure, you'll always find them. Test your knowledge in a clinical context and see if you can solve a few cases.

### Lectures & Quizzes:

- Kidneys: anatomy and How to image (basics)
- Kidneys: How to image 1
- Kidneys: How to image 2
- Kidneys: Pathologies 1
- Kidneys: Pathologies 2
- Kidneys: Case reports
- Quiz - Kidney sonography

## Chapter 7 | 0.75 CME

# Adrenal glands and spleen

Scanning and evaluating the spleen and the rather tricky region of the adrenal glands with ultrasound will be no big deal for you after you have completed this chapter! Do you know which pathologies you should look for? Why they are so important to find? These are the topics you will learn here.

### Lectures & Quizzes:

- Adrenal glands
- Spleen
- Quiz - Adrenal glands and spleen

## Chapter 8 | 1 CME

# Pancreas and great vessels

Pancreas - is also called the hidden organ? True, it is difficult to find. But not for you: once you have completed this chapter, you will never fail to find the pancreas again. We will deal with the most common pathologies of the pancreas and get on with scanning the region of the great abdominal vessels. Abdominal aortic aneurysm - early diagnosis can save lives! Be prepared for critical care scenarios and emergencies and learn how to scan and evaluate the abdominal aorta.

### Lectures & Quizzes:

- Pancreas: Anatomy and How to image
- Pancreas: Pathologies
- Great vessels
- Quiz - Pancreas and great vessels

## Chapter 9 | 0.5 CME

# Pelvis part 1

Scanning the urinary bladder with ultrasound is easy and rewarding - you'll understand why in this lecture! Urinary retention - a painful but often easily solved problem when detected with ultrasound - you can do it! This chapter also covers the issue of residual urine and the ultrasound appearance of bladder tumors.

### Lectures & Quizzes:

- Urinary bladder: Anatomy and How to image
- Urinary bladder: Pathologies
- Quiz - Pelvis part 1

Chapter 10 | 0.75 CME

## Pelvis part 2

This chapter covers the different scan planes for examining the female and male pelvis: how to find the uterus, the ovaries or the prostate. Tumours and cysts and free fluid in the female lower abdomen? Prosthetic hyperplasia? After completing this chapter, you will definitely be able to detect these pathologies! We will also deal with another very important issue: the carcinoma of the prostate.

### Lectures & Quizzes:

- Female pelvis: Anatomy and How to image
- Female pelvis: Pathologies
- Prostate
- Quiz - Pelvis part 2

Chapter 11 | 0.75 CME

## Scanning part 1

Scanning only - a complete review of all scan planes and approaches to: the liver, the kidneys and the adrenal glands region.

### Lectures & Quizzes:

- Scanning: Chapter 1
- Scanning: Chapter 2
- Quiz - Scanning part 1

Chapter 12 | 1 CME

## Scanning part 2

In this chapter you'll get the final touch - recapitulating all scan planes and approaches for spleen, pancreas and great abdominal vessels followed by scanning the urinary bladder as well as the female and male lower abdomen. Then the grand finale: we'll demonstrate a complete abdominal ultrasound examination. Now you're ready!

### Lectures & Quizzes:

- Scanning: Chapter 3
- Scanning: Chapter 4
- Scanning: Chapter 5
- Quiz - Scanning part 2

Chapter 13 | CME

## Appendicitis

In this chapter, we will show a simple, workable approach to ultrasound imaging of appendicitis - suitable for anybody who

is willing to learn abdominal ultrasound. Consider a scenario in which one of your patients is complaining about pain in the right lower quadrant of the abdomen, and has not had an appendectomy. In the case of appendicitis, an acute operation is necessary, so it is extremely important to get the right diagnosis very quickly. Appendicitis (acute inflammation of the appendix) is consistently one of the most critical differential diagnoses. In most cases, it is possible either to image the inflamed appendix with ultrasound or at a minimum to locate some characteristic ultrasound features that point to appendicitis. This premium chapter will cover everything you need to know, in order to help your patients in this emergency situation.

#### Lectures & Quizzes:

- Appendicitis