



# Thyroid Ultrasound MasterClass

The Thyroid Ultrasound MasterClass is a comprehensive video course that covers all aspects of thyroid disease. The chapters include thyroid ultrasound from A-Z, pathophysiology, clinical presentation, interpretation of laboratory findings, scintigraphy, FNB, surgery, and radioiodine therapy. This course is meant for any healthcare professional who is confronted with patients having thyroid disorders, no matter if they want to become a thyroid specialist or only learn the basics.

10.5  
CME credits

12  
Chapters

44  
Lectures

11  
Quizzes

## Chapter 1 | CME

### Free lectures

#### Lectures & Quizzes:

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

## Chapter 2 | 1.5 CME

### Basics

This chapter will provide you with the basics that you need to kick-start your career in thyroid ultrasound: Why does it make sense to learn thyroid ultrasound in the first place? In which patients should you perform ultrasound? Here we will also cover the anatomy of the thyroid and the neck and provide a wrap-up of thyroid function and physiology.

#### Lectures & Quizzes:

- Introduction to Thyroid Ultrasound
- Indications Part 1
- Indications Part 2
- Anatomy
- Physiology
- TUMC - Basics

## Chapter 3 | 0.5 CME

### Hypo-/Hyperthyroidism

Without a firm understanding of thyroid function, hyper- and hypothyroidism it is difficult, if not impossible, to correctly interpret thyroid ultrasound findings. In this chapter, we explain which conditions can lead to thyroid dysfunction, how thyroid hormone levels are controlled, what the classic symptoms of hypo- and hyperthyroidism are, and how the thyroid affects the function of our body.

#### Lectures & Quizzes:

- Hyperthyroidism - Part 1
- Hyperthyroidism - Part 2
- Hypothyroidism
- TUMC - Hypo-/Hyperthyroidism

### Chapter 4 | 2 CME

## Ultrasound Imaging

In this chapter we get to "the core of things": Here you will learn "how to perform a standard exam". Topics covered include patient positioning, image optimization (knobology), imaging planes, quantification of thyroid size, ultrasound anatomy, and much more. Of course, we also provide valuable tips and tricks. This chapter also deals with Doppler imaging and elastography.

#### Lectures & Quizzes:

- Instrumentation - Part 1
- Instrumentation - Part 2
- How to image - Part 1
- How to image - Part 2
- How to image - Part 3
- Elastography
- TUMC - US Imaging

### Chapter 5 | 1.5 CME

## Diffuse Disease

In this chapter, we cover pathologies that can affect the entire thyroid - so-called "diffuse diseases". These include goiter (diffuse and nodular), Graves' disease, Hashimoto's disease as well as other forms of thyroiditis (De Quervain, drug-induced and pregnancy-related). For each disease, we discuss the epidemiology, pathophysiology, risk factors, ultrasound features, other diagnostic modalities, and treatment options.

#### Lectures & Quizzes:

- Goiter - Part 1
- Goiter - Part 2
- Thyroiditis
- Hashimoto
- Graves' Disease - Part 1
- Graves' Disease - Part 2
- Drug-induced Thyroiditis
- TUMC - Diffuse Disease

### Chapter 6 | 1 CME

## Nodules: Benign or malignant

Thyroid nodules is (aside from diffuse disease) the "other" large topic in thyroid ultrasound. Nodules are the most common

finding on ultrasound. The major role of ultrasound is to determine which nodules could potentially be malignant. Here you will learn how to describe nodules using a systematic approach. You will also find out what the morphologic criteria for malignancy are. Again we show you many examples so that you can "train your eye".

#### Lectures & Quizzes:

- Nodules Basics
- Nodules Composition A
- Nodules Composition B
- Nodules Margins
- Nodules Shape + Vascularity
- TUMC - Nodules benign or malignant

### Chapter 7 | 1 CME

## Classification schemes & Cancer

In Chapter 6 we take the topic of nodules a step further. Now that you know how to evaluate nodules, you will find out how to classify them with respect to their risk of malignancy. We cover both the EU- and ACR TIRADS classification and the ATA guidelines for the management of nodules. In addition, we explain the Bethesda cytology classification. After watching this chapter you will know when you should proceed with fine-needle aspiration biopsy (FNA) and which nodules you can simply follow up on with ultrasound.

#### Lectures & Quizzes:

- How good is ultrasound
- Classification TIRADS
- ATA
- TUMC - classification schemes & cancer

### Chapter 8 | 1 CME

## Thyroid cancer

Thyroid cancer is not always a benign condition and ultrasound is the most important imaging modality for the early detection of thyroid cancer. But ultrasound is also important for the staging of malignancies. In this chapter, we introduce you to the classification and staging of thyroid cancer and then cover the most common forms (papillary, follicular, medullary) in more detail. We will talk about the epidemiology, predisposing factors, prognosis, and treatment of thyroid cancer. We specifically look into the topic of radiation exposure. The teaching points are highlighted by numerous examples and cases. As in all other chapters, our experts will share their thoughts and experience.

#### Lectures & Quizzes:

- Introduction
- Classification and Staging
- Papillary Thyroid Cancer
- Follicular Thyroid Cancer
- Medullary Thyroid Cancer
- TUMC - Thyroid Cancer

### Chapter 9 | 1 CME

## Scintigraphy & lab

While thyroid ultrasound is an important building block to diagnose thyroid disease it is not the only one. In this chapter, we

will add scintigraphy and lab testing to the list. After watching this chapter you will know how to put your ultrasound findings in the context of other findings and you will learn when scintigraphy and lab testing is indicated.

#### Lectures & Quizzes:

- Scintigraphy - Part 1
- Scintigraphy - Part 2
- Lab
- TUMC - Scintigraphy & lab

### Chapter 10 | 0.25 CME

## FNA

Fine Needle Aspiration (FNA) is performed with the guidance of ultrasound. In this chapter, we will explain when this procedure is indicated and demonstrate how it is performed. Here we also review the Bethesda Cytology classification and present cases from A-Z. From the initial diagnosis with ultrasound to scintigraphy and FNA. This chapter will also help you review what you have learned so far.

#### Lectures & Quizzes:

- FNA
- TUMC - FNA

### Chapter 11 | 0.25 CME

## Other (Hyperparathyroidism + neck)

The thyroid is only one structure of the neck. When you scan you will also come across findings outside the thyroid. This chapter focuses on two pathologies that you should not miss: Hyperparathyroidism and abnormalities of the lymph nodes. Here you will learn what the typical ultrasound appearance of parathyroid adenoma and abnormal lymph nodes are.

#### Lectures & Quizzes:

- Hyperparathyroidism
- TUMC - Other (Hyperparathyroidism + neck)

### Chapter 12 | 0.5 CME

## Radiotherapy

The last topic of this course on thyroid ultrasound is dedicated to radioiodine therapy. An important topic if you are involved in the treatment of patients with hyperthyroidism and cancer. But also for referring physicians. After all, you have to know for which patient groups radioiodine therapy is an option.

#### Lectures & Quizzes:

- Radioiodine therapy - Part 1
- Radioiodine therapy - Part 2
- TUMC - Radiotherapy