



Neuromuscular Ultrasound Essentials

Welcome to the exciting world of neuromuscular ultrasound! In this online Foundations of Nerve Ultrasound – Level 1, presented by key-opinion-leader Nens van Alfen, you will learn all the necessary basics of nerve ultrasound of the upper and lower extremity through 59 short videos. With interactive lessons, hands-on simulations, and real-life case studies, this course provides a comprehensive and engaging learning experience in the field of nerve ultrasound.

8.5

CME credits

12

Chapters

62

Lectures

11

Quizzes

Chapter 1 | CME

Free lectures

Lectures & Quizzes:

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

Chapter 2 | 1 CME

Introduction to nerve ultrasound

In this chapter, we'll introduce you to the world of ultrasound and specifically neuromuscular ultrasound.

Lectures & Quizzes:

- First Introduction
- Technology you need
- Setting up your examination
- Measuring nerves: CSA, diameters and ratios
- Indications and limitations of neuromuscular ultrasound
- Diagnostic value
- Ultrasound and electrodiagnosis: best practice test strategies
- Clinical case examples
- NUE - Introduction to nerve ultrasound

Chapter 3 | 1 CME

Anatomical tissues in ultrasound

In this chapter, we'll take a look at the appearance of various anatomical tissues with ultrasound.

Lectures & Quizzes:

- Introductory ultrasound physics
- Scan angle, grayvalues, anisotropy
- Peripheral nerves
- Muscle
- Anatomical context: fascia, subcutis, vessels, bones
- Dealing with unexpected findings
- NUE - Anatomical tissues in ultrasound

Chapter 4 | 0.5 CME

Qualitative scanning

In this chapter, we'll discuss the proper technique to create qualitative scanning using the scanning checklist.

Lectures & Quizzes:

- Handling the transducer
- Scanning Checklist: Operator
- Scanning Checklist: System
- Scanning Checklist: Transducer
- Transducer manipulation language
- NUE - Qualitative scanning

Chapter 5 | 1 CME

Median nerve

In this chapter, we'll cover the median nerve, the most scanned nerve in the world! We'll refresh the anatomy and show how to scan this nerve and where to look for pathology.

Lectures & Quizzes:

- (Sono)anatomy of the median nerve
- Median nerve in the wrist and forearm for carpal tunnel syndrome
- (Sono)pathology of the median neuropathy-wrist
- Sonopathology of the median nerve - Part 1
- Sonopathology of the median nerve - Part 2
- NUE - Median nerve

Chapter 6 | 1 CME

Ulnar nerve

In this chapter, we'll discuss the ulnar nerve, we'll look at the anatomy, sonoanatomy, demonstrate the scan technique and show interesting pathology cases of the ulnar nerve.

Lectures & Quizzes:

- (Sono)anatomy of the ulnar nerve
- Ulnar nerve in the elbow area for ulnar neuropathy at the elbow
- Ulnar nerve in the wrist and forearm for entrapment in Guyon's channel
- (Sono)pathology of ulnar neuropathy—elbow
- (Sono)pathology of ulnar neuropathy—wrist
- Sonopathology of the ulnar nerve - Part 1
- Sonopathology of the ulnar nerve - Part 2
- NUE - Ulnar nerve

Chapter 7 | 1 CME

Radial nerve

In this chapter, we'll cover the radial nerve, we'll look at the anatomy and sonoanatomy. Next, we'll demonstrate the proper scanning technique and lastly, show interesting pathology cases of the radial nerve.

Lectures & Quizzes:

- (Sono)anatomy of the radial nerve
- Radial nerve from humeral sulcus for Saturday night palsy
- Radial nerve in the elbow and proximal forearm region for PIN entrapment
- Radial neuropathy - PIN entrapment
- Sonopathology of the radial nerve
- Sonopathology of the radial nerve (real patient 1)
- Sonopathology of the radial nerve (real patient 2)
- NUE - Radial nerve

Chapter 8 | 0.75 CME

Fibular nerve

In this chapter, we'll look at the fibular nerve, we'll refresh the anatomy and look at the sonoanatomy. We'll demonstrate the scanning technique and show interesting pathology cases of the fibular nerve.

Lectures & Quizzes:

- (Sono)anatomy of the fibular nerve
- Fibular nerve in the knee and proximal lower leg for entrapment at the fibular head
- (Sono)pathology of fibular neuropathy - fibular head
- Sonopathology of the fibular nerve - Part 1
- Sonopathology of the fibular nerve - Part 2
- NUE - Fibular nerve

Chapter 9 | 0.5 CME

Tibial nerve

In this chapter, we'll cover the tibial nerve, we'll look at the anatomy and sonoanatomy. Next, we'll demonstrate the proper scanning technique and lastly show interesting pathology cases of the tibial nerve.

Lectures & Quizzes:

- (Sono)anatomy tibial nerve
- Tibial nerve in the distal calf and medial ankle region for tarsal tunnel syndrome
- (Sono)pathology of the tibial neuropathy - ankle
- Sonopathology of the tibial nerve - Part 1
- Sonopathology of the tibial nerve - Part 2
- NUE - Tibial nerve

Chapter 10 | 0.75 CME

Sural Nerve

In this chapter, we'll discuss the sural nerve, we'll look at the anatomy, sonoanatomy, demonstrate the scan technique and show interesting pathology cases of the sural nerve.

Lectures & Quizzes:

- (Sono)anatomy sural nerve
- Sural nerve in the calf for selecting an optimal biopsy site
- (Sono)pathology of the sural nerve - vasculitis
- Sonopathology of the sural nerve - Part 1
- Sonopathology of the sural nerve - Part 2
- NUE - Sural Nerve

Chapter 11 | 0.75 CME

Muscle

In this chapter, we'll discuss the muscles and their relation to nerve ultrasound, we'll look at common variants in nerve and muscle anatomy and how a normal and diseased muscle looks like.

Lectures & Quizzes:

- Common variants in nerve and muscle anatomy
- Normal and diseased muscle
- Muscle denervation: hyperechogenicity, atrophy and spontaneous activity
- Sonopathology of muscles
- NUE - Muscle

Chapter 12 | 0.25 CME

How to bring it into practice?

In this final chapter, we'll share some tips and tricks on how to incorporate neuromuscular ultrasound in clinical practice.

Lectures & Quizzes:

- How to perform safe exams
- Reporting nerve ultrasound results
- NUE - How to bring it into practice?