

**Certificate in Clinician Performed Ultrasound
(CCPU)
Syllabus**

Basic Soft Tissue Ultrasound

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Basic Soft Tissue Ultrasound Syllabus

Purpose

This unit is designed to cover the theoretical and practical curriculum for Basic Soft Tissue Ultrasound.

Prerequisites

Learners should have completed the Applied Physics in Ultrasound unit.

Course Objectives

On completing this course learners should be able to demonstrate:

- Demonstrate an understanding of the relevant anatomy
- Demonstrate the ability to effectively perform basic soft tissue imaging
- Identify relevant muscles and tendons
- Demonstrate muscle contraction and relaxation
- Identify and assess soft tissue infection including abscesses
- Identify and assess soft tissue injuries including haematomas, muscle injuries, major ligament injuries and major tendon tears
- Identify ultrasound evidence suggesting fracture of bones
- Identify foreign bodies
- Understand the limitations of ultrasound in diagnosis soft tissue injuries
- Write a structured report or complete proforma report for soft tissue assessment
- Have the clinical knowledge and ultrasound skill to be able to make appropriate management decisions according to the clinical situation
- Understand the requirement for comprehensive scan and expert input in certain settings

Course Content

The course will present learners with the following material:

Anatomy, Physiology and Pathology:

- Skin and subcutaneous tissue
- Lymph nodes
- Significant blood vessels
- Nerves
- Muscle
- Tendon
- Enthesis
- Fascia
- Bone
- Joints
- Imaging of soft tissue pathology:

- Identify large tears of major muscles, ligaments and tendons (e.g. Achilles, Spuraspinatus, etc.).
- Identify tendinopathy of major tendons (e.g. Patellar tendon)
- Identify soft tissue collections (including haematomas abscesses and ganglia)
- Identify joint effusions and synovial thickening
- Identify bursitis
- Principles of foreign body localization and abscess drainage
- NB Comprehensive MSK scans of joints are not expected at the level of this unit

Techniques, Physical Principles and Safety:

Appropriate transducers, artifacts (especially anisotropy), windows, standard images, image optimisation and safety in the context of soft tissue scanning

Limitations and Pitfalls:

- Understand the limitations of ultrasound in diagnosis of soft tissue problems.

Training

- Recognised through attendance at an ASUM accredited Basic Soft Tissue course. (Please see the website for accredited providers)
- Evidence of the satisfactory completion of training course is required for unit award.

Teaching Methodologies for the Basic Soft Tissue course

All courses accredited toward the CCPU/CAHPU will be conducted in the following manner:

- A pre-test shall be conducted at the commencement of the course which focuses learners on the main learning points
- Each course shall comprise at least six (6) hours of teaching time of which at least four (4) hours shall be practical teaching. Stated times do not include the physics, artefacts and basic image optimization which should be provided if delegates are new to ultrasound.
- Learners will receive reference material covering the course curriculum.
- The lectures presented should cover substantially the same material as the ones printed in this curriculum document.
- An appropriately qualified clinician will be involved the development and delivery of the course (they do not need to be present for the full duration of the course).
- The live scanning sessions for this unit shall include sufficient live patient models to ensure that each candidate has the opportunity to scan. Models will include normal subjects and patients with appropriate pathologies. Given that it may be difficult to find subjects with sufficient pathology, it is appropriate to include a practical 'image interpretation' session in which candidates must interpret images of the relevant pathology. If the latter are unavailable, there will be at least one image interpretation station with cineloops demonstrating the appropriate pathology.
- For interventional procedures, appropriate phantoms may be used.
- A post-test will be conducted at the end of the course to ensure the required learning objectives are met.

Assessments

- Two (2) formative assessments of clinical skills, specifically related to the assessment of soft tissue ultrasound
- One (1) summative assessment of clinical skills, specifically related to the assessment of soft tissue ultrasound

All assessments are to be performed under the supervision of the Primary Clinical Supervisor using the competence assessment form supplied at the end of this document.

Please refer to section 8 of the [CCPU Regulations](#) for information regarding timing and exclusion of these assessments in the logbook.

Logbook Requirements

- Twenty-five (25) basic soft tissue scans, including:
 - Five (5) joint examinations with at least two (2) effusions
 - Five (5) tendons
 - Five (5) Muscle examinations with at least two (2) haematomas / tears
 - Five (5) soft tissue infections with three (3) collections
 - At least two (2) foreign bodies
- A maximum of 50% paediatric cases (14 years and under) may be included in the logbook. Record in the column provided.
- All scans must be clinically indicated
- All logbook cases must be signed off by a suitably qualified supervisor (see section 6.0 of the [CCPU Regulations](#))
- The 'Comparison with Further Imaging or Clinical Outcome' column should describe the further imaging or the final outcome of the patient. In this column, candidates must compare at least **50% of their logbook findings to further imaging**, this includes stating the imaging method and commenting on whether the further imaging confirmed, contradicted, or expanded on their findings
- At the discretion of the ASUM CCPU Certification Board candidates may be allowed an alternative mechanism to meet this practical requirement

ASUM CCPU Competence Assessment Form

Basic Soft Tissue Ultrasound

Candidate: _____

Assessor: _____

Date: _____

Assessment type: Formative (feedback & teaching given during assessment for education)
 Summative (prompting allowed but teaching not given during assessment)

To pass the summative assessment, the candidate must pass all components listed

Prepare patient

	Competent	Prompted	Fail
Position			
Informed			

Prepare Environment

Lights dimmed if possible			
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Probe & Preset Selection

Can change transducer			
Selects appropriate transducer			
Selects appropriate preset			

Data Entry

Enter patient details			
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Image Acquisition

Demonstrates relevant anatomy including at least 2 planes and relevant anatomical landmarks			
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Artefacts

Identifies & explains the basis of common artefacts (must be able to describe anisotropy)			
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Record Keeping

Labels & stores appropriate images

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Documents any pathology identified

--	--	--

Completes report

Each view adequate / inadequate

--	--	--

Documents focussed scan only

--	--	--

Describe findings briefly

--	--	--

Integrates ultrasound findings with clinical assessment and explains how the findings might change management

--	--	--

Machine Maintenance

Cleans / disinfects ultrasound probe

--	--	--

Stores machine and probes safely and correctly

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For Formative Assessment Only:

Feedback of particularly good areas: _____

Agreed actions for development: _____

Examiner Signature: _____ Candidate Signature: _____

Examiner Name: _____ Candidate Name: _____

Date: _____