

**Certificate in Allied Health Performed Ultrasound  
(CAHPU)  
Syllabus**

**Soft Tissue Ultrasound for Physiotherapy**

## Soft Tissue Ultrasound for Physiotherapy Syllabus

### Purpose:

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

### Prerequisites:

Learners should have completed the ASUM CAHPU online Physics tutorial or accredited equivalent unit. Allied health practitioners should be physiotherapists engaged in managing soft tissue injury and pathology.

### Training:

Recognised either through attendance at an ASUM accredited Physiotherapy US unit or equivalent.

### Assessments:

Learners are required to provide evidence of satisfactory completion of accredited unit (or equivalent), supervised ultrasound scans and documentation in a logbook.

### Unit Objectives

On completion of the unit, learners should be able to:

- Demonstrate an understanding of the relevant anatomy
- Demonstrate the ability to effectively perform basic soft tissue imaging
- Identify relevant muscles and tendons and ligaments
- Demonstrate muscle contraction and relaxation
- Identify and assess soft tissue injuries including haematomas, muscle injuries, major ligament injuries and major tendon tears
- Identify ultrasound evidence suggesting fracture of small bones
- Identify foreign bodies
- Identify arthropathy, tendinopathy, enthesopathy tenosynovitis and bursitis
- Understand the limitations of ultrasound in diagnosis soft tissue injuries
- Understand the complications in the normal healing process including fibrosis, calcification, infection and non-healing
- 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

## Unit Content

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 tears of major muscles, ligaments and tendons (e.g. Achilles, Supraspinatus, etc )
  - Identifying grades of muscles tears
- Identify tendinopathy of major tendons (eg. Patellar tendon)
  - Identifying grades of tendinopathy (ie reactive vs disrepair vs degenerative tendinopathy).
- Identify soft tissue collections (including haematomas abscesses and ganglia)
- Identify joint effusions and synovial thickening
- Identify bursitis
- Principles of foreign body localization
- Complications of normal healing process including fibrosis, calcification, infection and non-healing

## 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.
- If there is any uncertainty about diagnosis a timely formal scan should be scheduled.

## Teaching Methodologies

All training that include unit curriculum accredited toward the CAHPU will be conducted in the following manner:

- A pre-test shall be conducted at the commencement of the training which focuses learners on the main learning points
- Each CAHPU soft tissue unit shall comprise at least 12 hours of teaching time of which at least 8 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 unit 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 in both the development and delivery of the unit and training (they do not need to be present for the full duration the training).
- 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.
- A post-test will be conducted at the end of the training as formative assessment.

## Assessment and Logbook

### Formative Assessments

At least 2 formative assessments (directly supervised with suggestions and advice provided during the scan). A competence assessment template is attached to this document.

### Summative Assessments

A summative assessment by a suitably qualified Sonologist (DDU, FRANZCR, DMU, CCPU and CAHPU holders) is to be submitted with the logbook. A competence assessment template is attached to this document.

### Logbook Requirements

- Complete 80 examinations within 2 years of completing unit training, at least 50% clinically indicated: 30 shoulder, 10 Achilles, 10 patellar, 10 hamstring; 10 elbow.
- At least 15 abnormal cases
- Cases of tears must include appropriate evidence.

- Evidence of completion of logbook signed off by a suitably qualified assessor (see above).
- 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.
- Those cases that involve a procedural component must be signed off by a suitable assessor who performs those procedures themselves.
- All cases are to be reviewed and signed off as adequate by a suitably qualified Sonologist (DDU, FRANZCR, DMU, CAHPU, CCPU holder, etc.) or sonographer (DMU AMS) (NB review of logbook case does not have to be undertaken at the time of the scan, although, if possible, this is preferred).

At the discretion of the ASUM CCPU-CAHPU Certification Board candidates may be allowed an alternative mechanism to meet this practical requirement.

**ASUM CAHPU Competence Assessment Form**  
**Soft Tissue Ultrasound for Physiotherapy**

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

	<b>Competent</b>	<b>Prompted</b>	<b>Fail</b>
<b>Prepare patient</b>			
Position			
Informed			
<b>Prepare Environment</b>			
Lights dimmed if possible			
<b>Probe &amp; Preset Selection</b>			
Can change transducer			
Selects appropriate transducer			
Selects appropriate preset			
<b>Data Entry</b>			
Enter patient details			
<b>Image Acquisition</b>			
Demonstrates relevant anatomy including at least 2 planes and relevant anatomical landmarks			
<b>Artefacts</b>			
Identifies & explains the basis of common artefacts			
<b>Record Keeping</b>			
Labels & stores appropriate images			
Documents any pathology identified			

Completes report  
*Each view adequate / inadequate*  
*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

<b>Competent</b>	<b>Prompted</b>	<b>Fail</b>

**For Formative Assessment Only:**

Feedback of particularly good areas: \_

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Agreed actions for development:

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Examiner Signature: \_\_\_\_\_ Candidate Signature: \_\_\_\_\_

Examiner Name: \_\_\_\_\_ Candidate Name: \_\_\_\_\_

Date: \_\_\_\_\_