USP96M
Understand the principles of soft tissue dysfunction

Unit reference number: F/507/5641
Level: 3
Guided Learning (GL) hours: 30

Overview
This unit provides the knowledge and understanding of soft tissue injury and dysfunction. Learners will develop their knowledge of the differences between injury and dysfunctional tissue to include the different types, causes and symptoms of both. Learners will also develop their knowledge of the importance of the inflammatory process, soft tissue repair and factors that may influence the healing process.

Learning outcomes
On completion of this unit learners will:

LO1 Understand soft tissue dysfunction
LO2 Understand the process of soft tissue repair
Assessment requirements

Learners must complete both assessment requirements related to this unit:

1. External examination
2. Graded synoptic assessment

1. External examination

The theory content of LO1 and LO2 will be tested by an external examination at the end of the period of learning.

External examinations will test knowledge and understanding from across the whole vocational area (mandatory units). Learners should use the unit content section of this unit to aid revision since exam questions will test the full breadth of this content.

External examinations will be set and marked by VTCT and will contribute to the overall qualification grade.

2. Graded synoptic assessment

In the last term or final third of their qualification learners will be required to undertake a graded synoptic assessment. This will require learners to carry out a range of services from across the whole vocational area (mandatory units). Assessment coverage will vary year on year although all services will be covered over time.

VTCT will set a brief for centres which will detail the services to be covered in the graded synoptic assessment. Grading descriptors for the synoptic assessment will also be provided by VTCT.

The graded synoptic assessment will be marked and graded by centre staff and externally quality assured by VTCT.

The graded synoptic assessment will contribute to the overall qualification grade.
LO1 Understand soft tissue dysfunction

Learners must understand the difference between soft tissue injury and dysfunctional tissue:
- Dysfunctional tissue – non-pathological, free from disease, non-injured, aches and pains, areas of scar tissue, tense areas, postural, misalignment, ischaemia, free from inflammation
- Soft tissue injury – damage to any biological tissue not bone. Damage to muscles, tendons, ligaments and other soft tissues, e.g. fascia, joint capsule and other connective tissues

Learners must understand the types of soft tissue injuries:
- Muscle injuries – strain, contusion/haematoma, intramuscular and intermuscular, muscle cramp, delayed onset muscle soreness
- Tendon injuries – tendinopathy, tendinosis/tendinitis, rupture
- Ligament injuries – sprain, dislocation
- Other injuries – bursitis, skin (cut, abrasion, blister, friction burn)

Learners must understand the causes of common soft tissue injury:
- Intrinsic causes of soft tissue injury
  - Lack of physical preparation/warm-up
  - Overuse
  - Muscle imbalance
  - Postural defects, e.g. kyphosis and lordosis
  - Individual variables, age and gender, body type, weight
- Extrinsic causes of soft tissue injury
  - Trauma or impact
  - Pressure
  - Friction
  - Environmental factors, e.g. slippery or uneven floor surface, temperature
  - Equipment
  - Clothing and footwear, e.g. lack of sufficient support, chaffing

Learners must know the severity of common soft tissue injury:
- Differentiate between the severity of injury
- Grades of injury (1 – 3)
- Characteristics of each grade – signs and symptoms of each grade
Learners must understand the causes, signs and symptoms of soft tissue dysfunction:

- **Common causes of soft tissue dysfunction**
  - Poor posture
  - Inactivity
  - Previous injury
  - Body composition
  - Lifestyle
  - Work
  - Stress
  - Repetitive movements
  - Sport

- **Signs of soft tissue dysfunction**
  - Postural defects
  - Muscular imbalance
  - Joint instability
  - Decreased mobility
  - Bruising
  - Deformation

- **Symptoms of soft tissue dysfunction**
  - Aches
  - Pains
  - Tightness
  - Stiffness
  - Weakness
LO2 Understand the process of soft tissue repair

Learners must understand the process of soft tissue repair:
- Stages of soft tissue repair
  - Acute stage – stage of inflammation, protection/homeostasis phase
  - Sub-acute stage – repair phase, healing tissues start to form
  - Chronic stage – late stage, remodelling phase, scar tissue develops, tissue adaption
  - Acute on chronic – flare up, therapeutic inflammation

Learners must know the factors that may influence soft tissue repair:
- Influencing factors – treatment, rest, activity, stretching, strengthening, nutrition, age and medication

Learners must understand the importance of soft tissue repair:
- Importance of inflammatory process – to defend against harmful substances, to dispose of dead or dying tissue, to promote the repair and renewal of normal tissue

Learners must know the possible signs and symptoms of contra-actions:
- Recognise skin irritation such as itchiness, redness, or swelling
- Irritation may occur due to intolerance or allergy to products used or techniques applied
- Effects that may occur following the sports massage may include aching/tenderness, possible bruising, headache, dizziness, nausea, flu-like symptoms, changed sleep patterns/fatigue, thirst, heightened emotions, increased urination and increased defecation
Resources

The special resources required for this unit are access to resources to support the development of knowledge of sports injuries and tissue dysfunction.

Learners will benefit from access to sports injury texts as well as interactive material that can facilitate learning of the soft tissue injury and repair process.

**Recommended text books:**


NB: This list is not exhaustive. There are many other valuable text books.

**Recommended websites:**
- The SMA Code of Ethics and Conduct – [www.thesma.org](http://www.thesma.org)
- Complementary and Natural Healthcare Council (CNHC) – [www.cnhc.org.uk](http://www.cnhc.org.uk)
- Federation of Holistic Therapists (FHT) – [www.fht.org.uk](http://www.fht.org.uk)
- The council for soft tissue therapies – [www.gcmt.org.uk](http://www.gcmt.org.uk)
- The National Institute for Health and Care Excellence (NICE) – [www.nice.org.uk](http://www.nice.org.uk)
- The American College of Sport Medicine (ACSM) – [www.acsm.org](http://www.acsm.org)
- The British Association of Sport and Exercise Science – [www.bases.org.uk](http://www.bases.org.uk)

**Delivery guidance**

Teachers are encouraged to use innovative, practical and engaging delivery methods to enhance the learning experience. Learners may benefit from the use of:

- Interactive information and technology systems and software so they can actively learn about concepts and theories related to sports injury
- Interactive workshops that enable application of knowledge in a practical context, e.g. observation of sporting actions to identify how injuries may occur
- Anatomical models to identify the structures surrounding different joints and muscles that may become injured or dysfunctional
- Clinical application scenarios and case studies to allow learners to explore the events that occur during the healing process
- Flash cards, diagrams to complete, quizzes and design of posters to reinforce learning
Links with other units

This unit is closely linked with the following units:

**USP92M Anatomy and physiology for sports massage**

Learners will be required to apply their knowledge of anatomy and physiology when studying the principles of soft tissue. Knowledge of anatomical and physiological structures is essential to understand the stresses on the body that can lead to dysfunction and injury and the signs and symptoms of soft tissue damage. It is also essential for understanding the processes which enable the phases of healing and recovery. The content of the anatomy and physiology for sports massage unit should be delivered before the principles of soft tissue dysfunction unit.

**USP93M Professional practice in sports massage**

Learners will be required to apply their knowledge of professional practice when studying principles of soft tissue dysfunction. Learners must ensure they work within their scope of practice and signpost clients to other professionals when appropriate. The content of the professional practice in sports massage unit should be delivered before the delivery of the principles of soft tissue dysfunction unit.

**USP94M Assessment for sports massage**

Learners will be required to apply their knowledge of the principles of soft tissue dysfunction when conducting client assessment. Knowledge of the principles of injury and dysfunction are fundamental within the assessment process. Accurate assessment is intrinsically linked with knowledge of soft tissue repair. Learners need to be able to identify signs and symptoms associated with soft tissue injury and dysfunction, to contrast the severity of injury and to identify potential risk factors associated with injury. The content of the assessment for sports massage unit can be delivered before, or integrated with the delivery of the principles of soft tissue dysfunction unit.

**USP95M Sports massage treatments**

Learners will be required to apply their knowledge of assessment for sports massage when studying the principles of soft tissue dysfunction. Learners will be required to apply their knowledge of sports massage techniques to facilitate the soft tissue repair process (where appropriate) and devise appropriate treatment strategies to modify and manage the healing process relative to various soft tissue structures. The content of the sports massage treatments unit can be integrated with the delivery of the principles of soft tissue dysfunction unit.

**USP97M Health and lifestyle**

Learners will be required to apply their knowledge of principles of soft tissue dysfunction when studying health and lifestyle. Health and lifestyle behaviours and habits can sometimes be linked with soft tissue dysfunction and injury risk e.g. postures and body position and the effects of stress. The content of the health and lifestyle unit can be delivered before, or integrated with the delivery of the assessment for principles of the soft tissue dysfunction unit.

**Graded synoptic assessment**

At the end of the qualification of which this unit forms part, there will be a graded synoptic assessment which will assess the learner’s ability to identify and use effectively in an integrated way an appropriate selection of skills, techniques, concepts, theories, and knowledge from a number of units from within the qualification. It is therefore necessary and important that units are delivered and assessed together and synoptically to prepare learners suitably for their final graded assessment.