Learner Workbook

iUSP151 – Conducting Subjective and Objective Assessment

This workbook can help you to prepare for assessment for the following units:

iUSP151 - Learning Outcomes
Learners will:
1. Be able to conduct subjective and objective assessment 2. Be able to devise a sport massage treatment plan 3. Understand the anatomy and physiology of the major joints of the body 4. Understand the influences and effects of client information on treatment planning 5. Understand the effects of anatomy, physiology and pathology on human function 6. Understand the principles and practice of objective assessment techniques

Learner name: _____

Introduction

Please provide detailed answers to all the questions in this workbook. You can refer to your notes to complete the answers:

Other sources of information and guidance for the potential answers include:
• The unit manuals • The PowerPoint presentations used by the tutor • Other relevant and credible information sources, e.g. books, textbooks, professional journals and associations

1 - Anatomy and Physiology of the major joints

1. Identify and explain the functions of bony structures and soft tissue structures of the major joints.

The shoulder girdle, upper limb, elbow, wrist and hand

Which bone articulates with the top of the shoulder (acromion process) and sternum?

What type of joint is the clavicle and scapula articulation?

What joint forms the connection between the clavicle and sternum?

Where is the acromion process?

What function does the glenoid cavity serve?

Which joint movements are possible at the shoulder girdle?

What type of joint is the shoulder?

List and describe the static stabilisers of the shoulder complex.

Which joint movements are possible at the shoulder?

Where is the olecranon process located?

What type of joint is the elbow?

Which bones join to form the elbow joint?

Describe the radio-ulna joint of the elbow.

Describe the position of the following ligaments of the elbow:
Lateral collateral ligament
Medial collateral ligament
Annular ligament

Which bones make up the radio-carpal joint?

Which joint actions are enabled by the radio-ulnar joint and the inter-osseous membrane?

What happens to the radius in relation to the ulna during pronation?

What type of joint is the wrist?

What joint actions occur at the metacarpals?

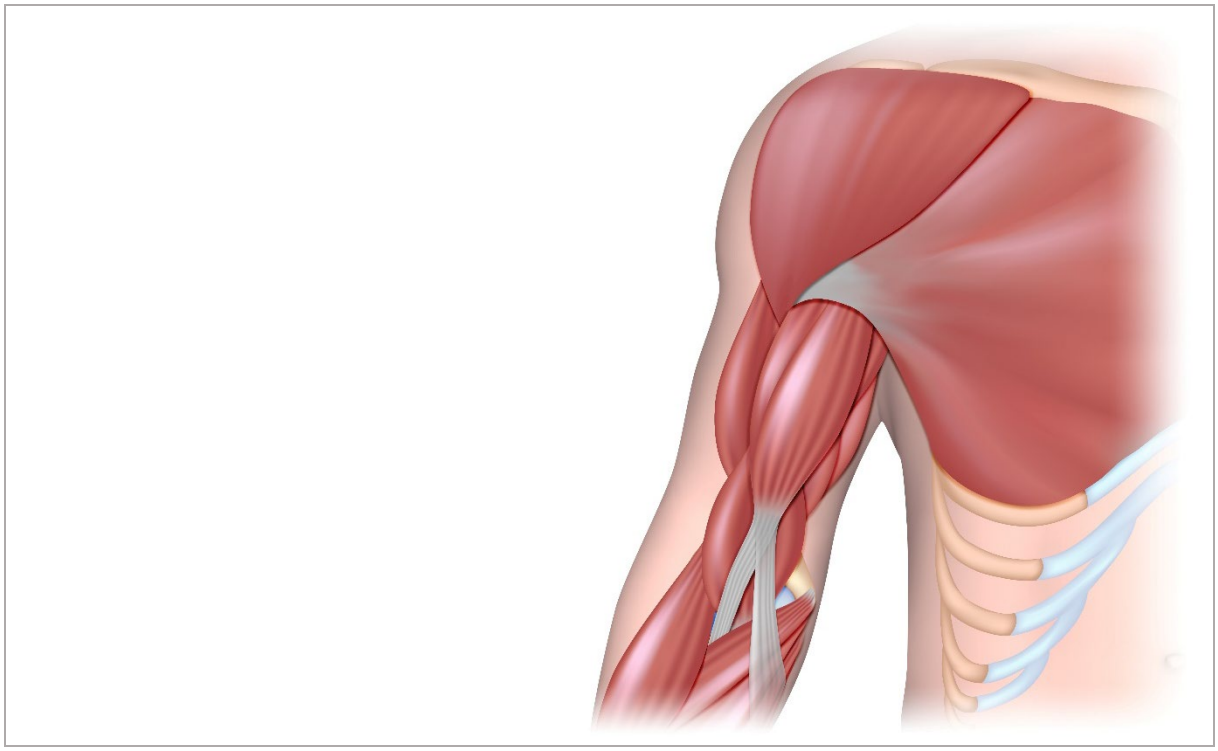
Which type of joint is the thumb?

What is the carpal tunnel?

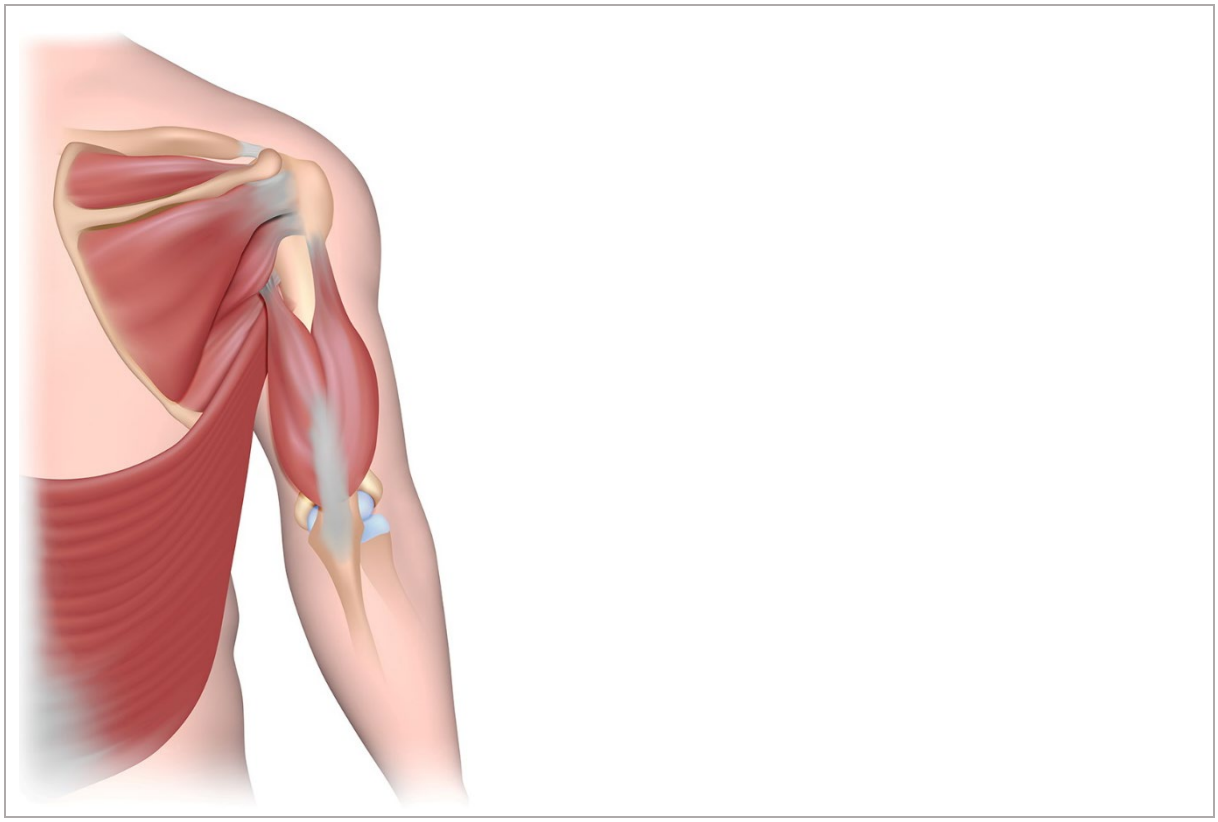
2. Label the diagram to identify the bony structures:

Spine of scapula	Medial border of the scapula	Lateral border of the scapula	Coracoid process	Inferior angle of the scapula	Superior angle of the scapula

3. Label the main muscles illustrated in the diagram (anterior muscles).



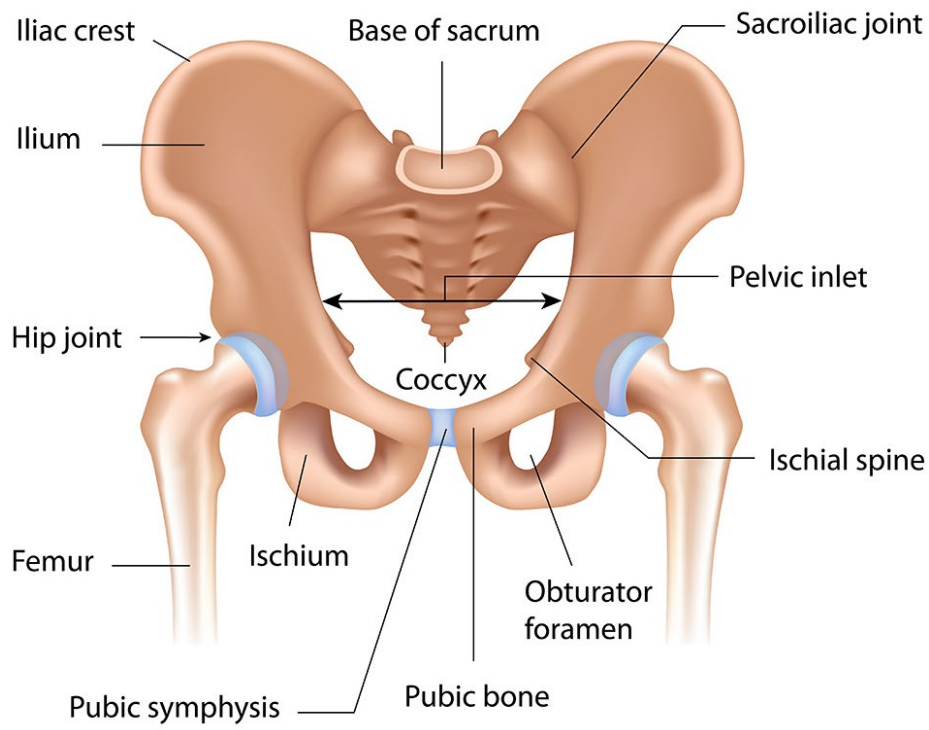
4. Label the main muscles illustrated in the diagram (posterior muscles).



The Pelvic Girdle

5. Draw an arrow to locate the following bony landmarks.

Anterior superior iliac spine (ASIS)	Posterior superior iliac spine (PSIS)



6. What is the function of the pelvis?

7. When the pelvis is in neutral position, how are the ASIS and PSIS positioned, in relation to each other?

8. When the pelvis is in neutral position, how are the ASIS and pubic symphysis positioned, in relation to each other?

9. Which part of the ilium articulates with the sacrum to form the sacroiliac joint?

10. Describe the structure and function of the sacroiliac joint?

11. Which bones make up the hip joint?

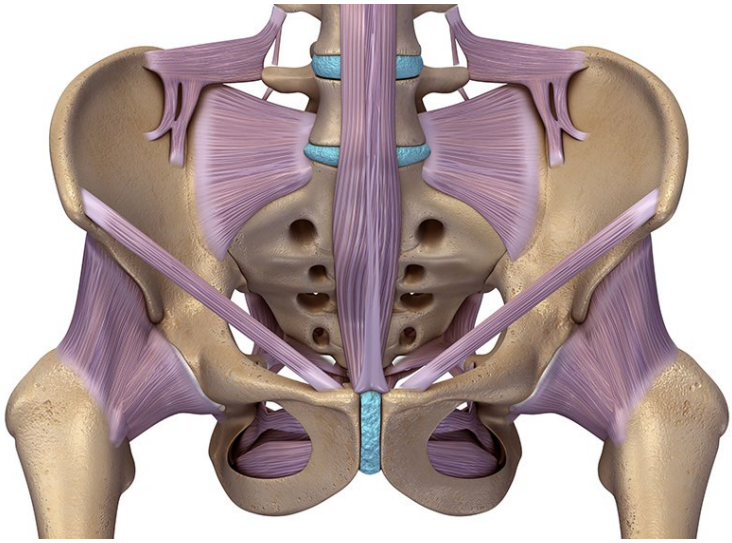
12. Which bones are also known as the sitting bones?

13. List and describe three bursa at the hip complex.

14. What is the name of the cartilaginous disc that joins the pubic bones anteriorly?

15. Label the main ligaments illustrated in the diagram.

Iliolumbar	Sacrospinous	Sacrotuberous	Sacroiliac	Inguinal	Pubofemoral



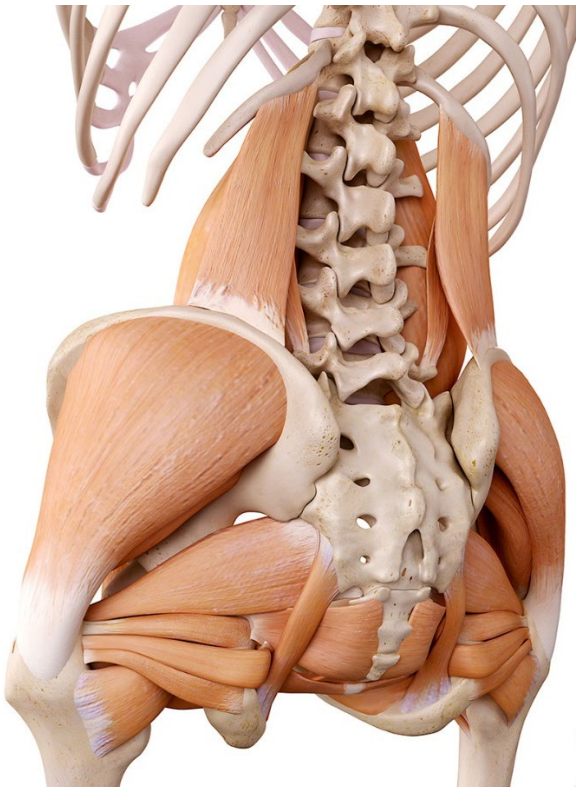
16. Describe the position and function of the following ligaments:

Sacrotuberous ligament:
Sacrospinous ligament:

17. Describe some of the differences between the male and female pelvis.

Female pelvis	Male pelvis

18. Label the main muscles illustrated in the diagram.



Lower limb: Hip, Knee and Ankle joint

Which bones articulate with the femur at the knee joint?

Which is the main weight bearing bone of the lower leg?

What is the name and the function of the ligaments that cross through the centre of the knee joint?

Where is the medial collateral ligament located?

What is the role of the sesamoid bone within the quadriceps tendon?

Which soft tissue structures are located at the pes anserine?

Describe the structure and function of the lateral and medial meniscus

Which tarsal bone articulates with the tibia and fibula?

Which bone provides the attachment point for the Achilles tendon?

What type of joint occurs between the talus, tibia and fibula?

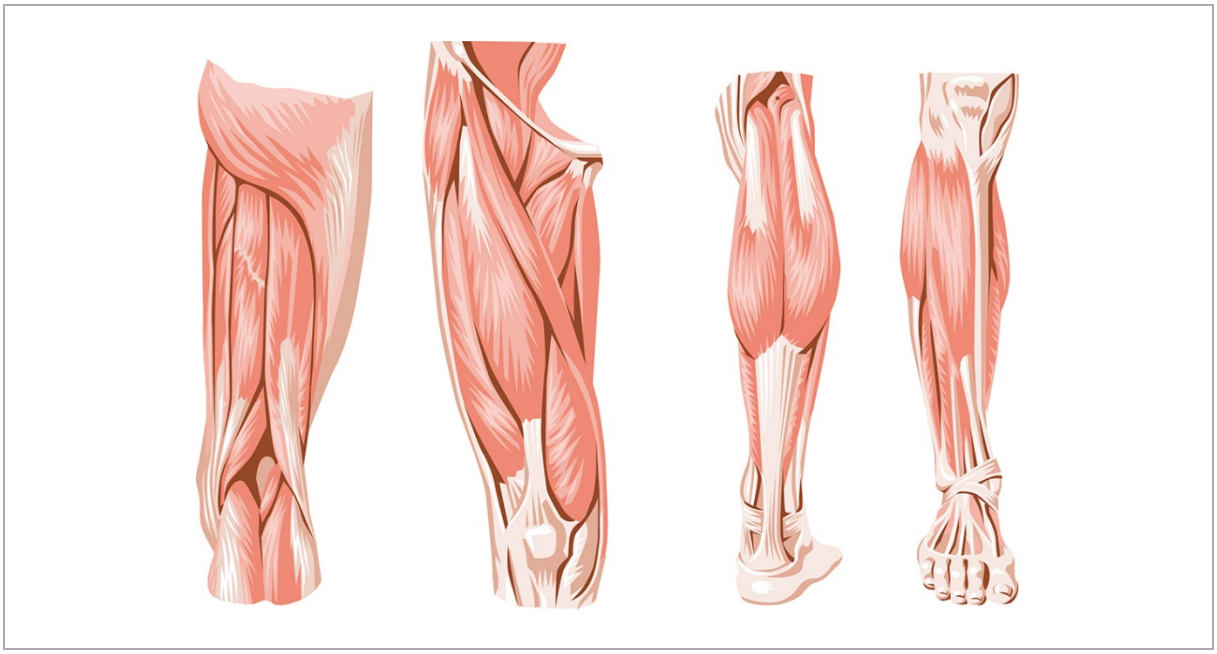
What joint actions occur at the joint between the talus, tibia and fibula?

Identify the ligaments on the medial and lateral aspect of the ankle and describe their function
Calcaneofibular ligament
Talofibular ligament
Deltoid ligaments

Describe the function of the following soft tissue structures at the ankle and foot:
Ankle retinaculum
Plantar fascia
Interosseous membrane

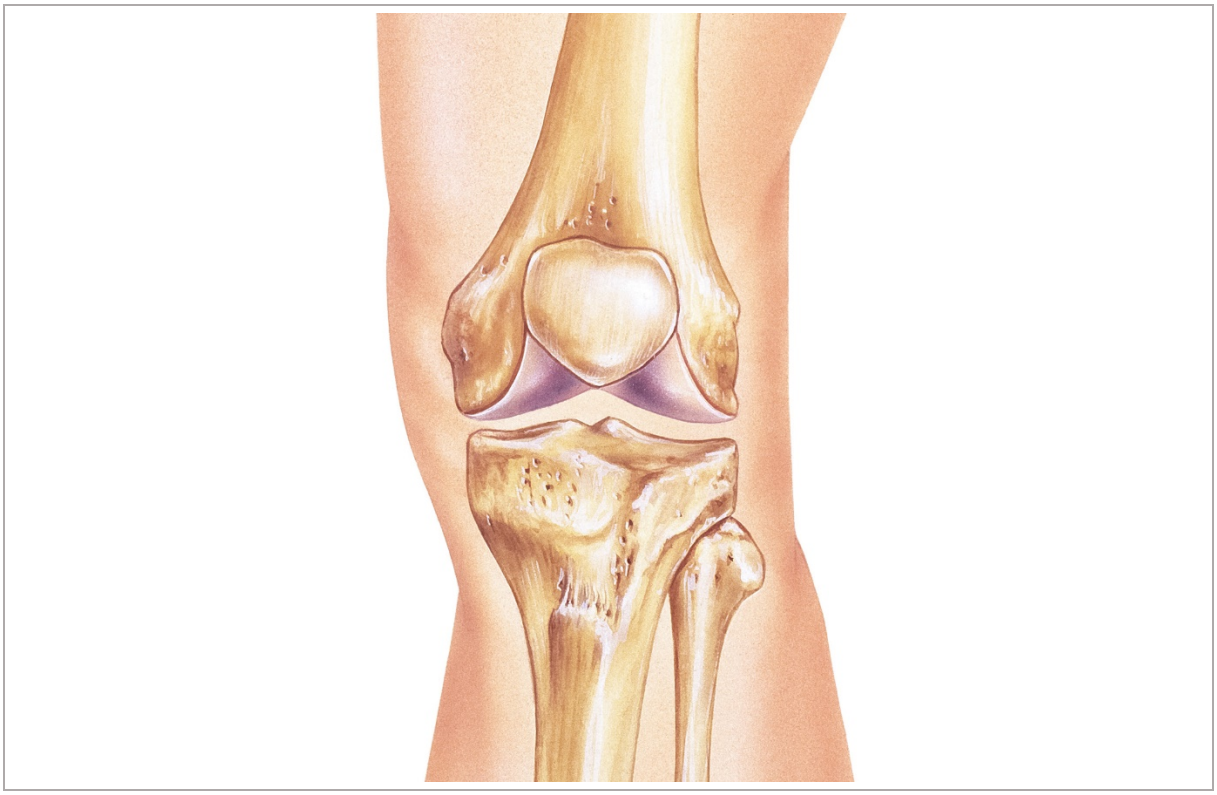
What joint movements occur between the tarsal bones?

19. Label the main muscles of the lower limb that are illustrated in the diagram.



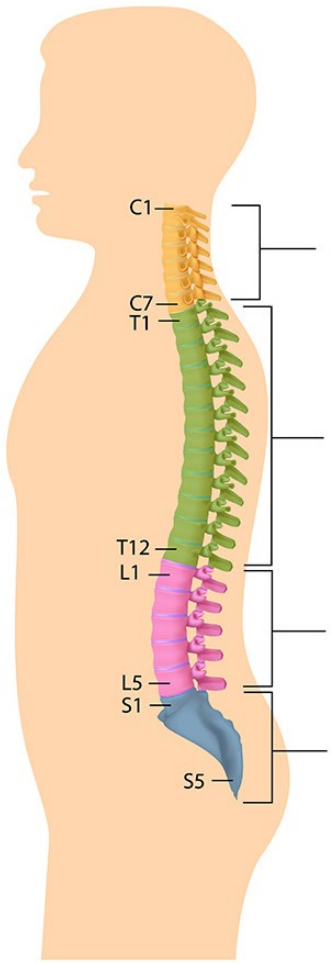
20. Label the following structures on the diagram below:

Head of fibula	Tibial tuberosity	Lateral and medial femoral condyles	Lateral and medial tibial condyles	Inferior pole of patella



The Vertebral Column or Spine

21. Name the different sections of the vertebral column.



22. Describe the structural differences between the vertebrae at the different sections of the vertebral column.

Cervical	Thoracic	Lumbar

Which two bones form a pivot joint in the neck region?

Which bone supports the skull?

What joint action is available between the skull and the vertebrae that supports it?

What is the function of the intervertebral discs?

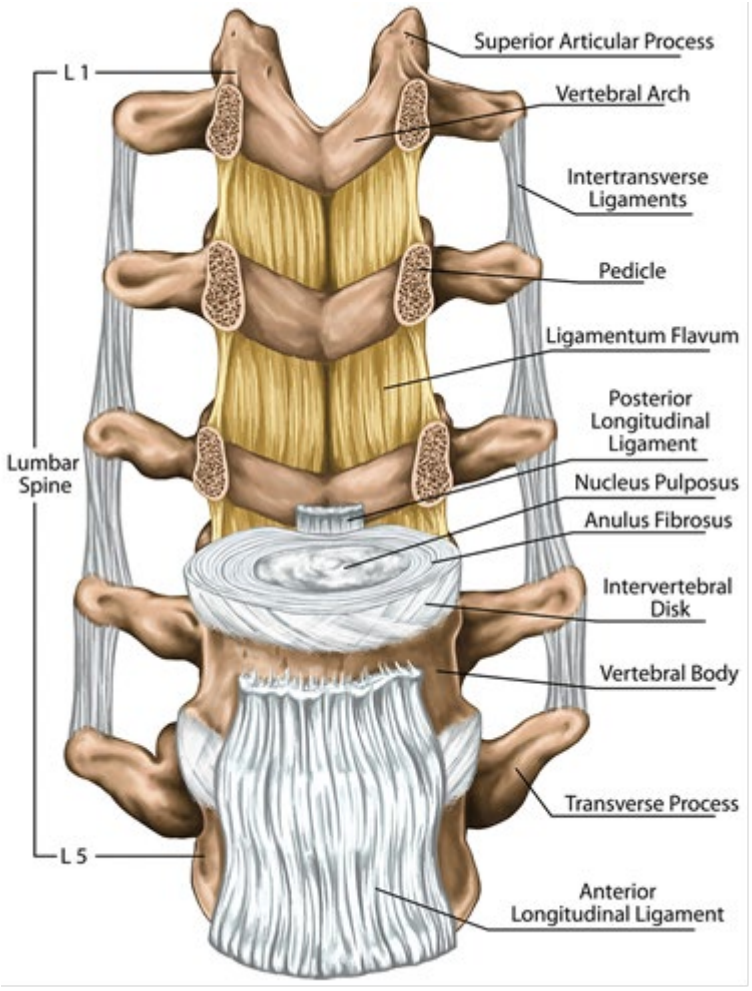
What is the function of the ligaments of the spine?

23. Which joint actions occur at the following regions of the spine and which movement plane do these joint actions occur in?

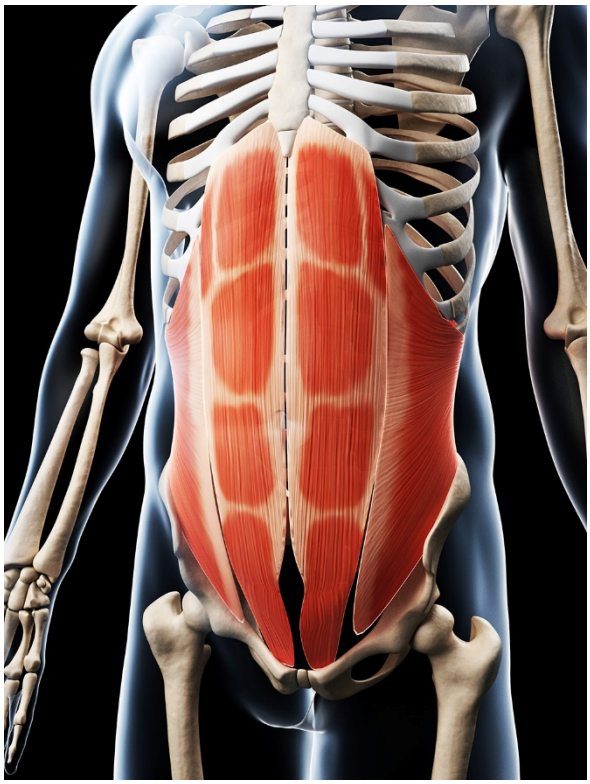
Region	Action	Movement plane
Lumbar spine		
Thoracic spine		
Cervical spine (Atlas and Axis)		

24. Explain the role of the following spinal ligaments:

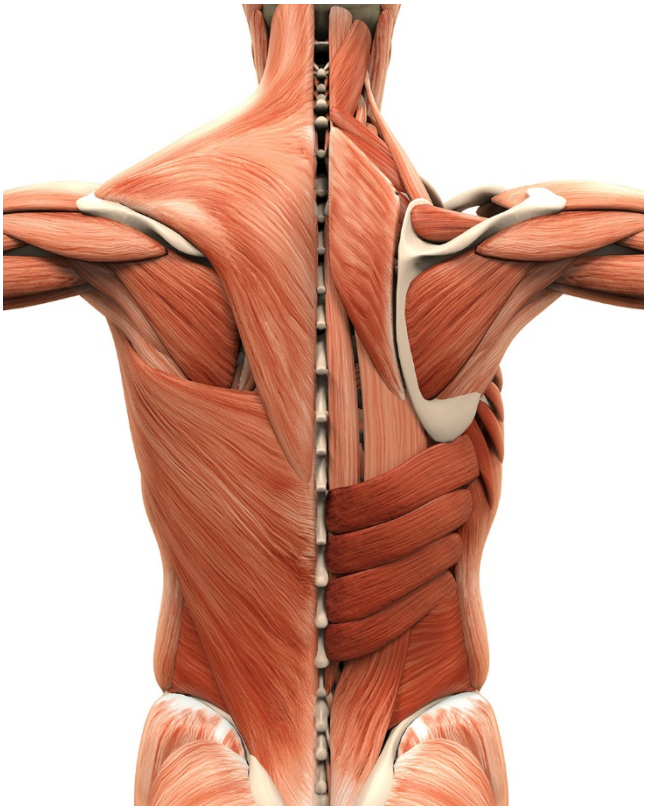
Anterior longitudinal	
Posterior longitudinal	
Ligamentum flavum	
Inter-transverse ligaments	



25. Label the main muscles illustrated in the diagram.



26. Label the main muscles illustrated in the diagram.



27. Explain the different types of joint-end feel.

2 - Understand the influences and effects of client information on treatment planning

28. Identify some of the factors which may predispose clients to injury and dysfunction. Explain, using examples, how each factor could lead to dysfunction or injury.

Factor	Explanation

29. Explain some of the factors which may influence a client's ability to recover from injury.

Factor	Explanation

30. Give some examples of how subjective information may influence treatment planning.

Subjective information	Influence on treatment planning

31. Identify some of the reasons to defer treatment or refer/signpost to a medical professional.

Reason to defer or refer	Action to be taken, e.g. defer or refer

3 - Understand the effects of anatomy, physiology and pathology on human function

32. Explain how the ageing process affects the musculoskeletal systems.

33. Describe the characteristics of common postural types and explain the effects of these postural deviations.

Postural type	Characteristics of posture type	Effects of postural deviation
Hyperkyphosis Upper crossed syndrome		
Dowager's hump		
Hyperlordosis Lower crossed syndrome		
Flat back		

Postural type	Characteristics of posture type	Effects of postural deviation
Scoliosis		
Sway back		
Winged or winging scapula		

34. Describe the pathophysiology of the common injuries and soft tissue dysfunctions listed in the table.

Common injury/ soft tissue dysfunction	Description of pathophysiology	Signs and symptoms	Mechanism of injury	Assessment findings
Tendinopathy				
Dislocation				
Bursitis				

Common injury/ soft tissue dysfunction	Description of pathophysiology	Signs and symptoms	Mechanism of injury	Assessment findings
Compartment syndrome				
Thoracic outlet syndrome				
Stress fractures				

Common injury/ soft tissue dysfunction	Description of pathophysiology	Signs and symptoms	Mechanism of injury	Assessment findings
Lateral epicondylitis				
Medial epicondylitis				
Disc herniation				

Common injury/ soft tissue dysfunction	Description of pathophysiology	Signs and symptoms	Mechanism of injury	Assessment findings
Facet joint syndrome				
Myositis ossificans				
Piriformis syndrome				

Common injury/ soft tissue dysfunction	Description of pathophysiology	Signs and symptoms	Mechanism of injury	Assessment findings
Snapping hip				
Impingement syndrome				
Acromioclavicular separation				

Common injury/ soft tissue dysfunction	Description of pathophysiology	Signs and symptoms	Mechanism of injury	Assessment findings
Iliotibial band syndrome				
Nerve root damage				
Adhesive capsulitis				

Common injury/ soft tissue dysfunction	Description of pathophysiology	Signs and symptoms	Mechanism of injury	Assessment findings
Medial tibial stress syndrome				
Carpal tunnel syndrome				
Inversion sprain				

Common injury/ soft tissue dysfunction	Description of pathophysiology	Signs and symptoms	Mechanism of injury	Assessment findings
Patellofemoral pain syndrome				
Osgood-Schlatter's disease				
Plantar fasciitis				
De Quervain's tenosynovitis				

4 - Understand the principles and practice of objective assessment techniques

35. Explain the methods and purpose for the objective assessment techniques listed and give examples to explain how to interpret findings for each objective assessment technique.

	Method	Purpose	How to interpret findings
Asymmetry			
Palpation			

	Method	Purpose	How to interpret findings
Range of movement - Active			
Range of movement - Passive			
Range of movement - Resisted			

	Method	Purpose	How to interpret findings
Postural analysis - Side			
Postural analysis - Front			
Postural analysis - Rear			

	Method	Purpose	How to interpret findings
Functional tests - Name of test			
Functional tests - Name of test			
Functional tests - Name of test			

	Method	Purpose	How to interpret findings
Special tests - Name of test			
Special tests - Name of test			
Special tests - Name of test			

36. Critically evaluate the range of objective assessment methods used to gather information.

Method	Advantages	Disadvantages
Asymmetry		
Palpation		
Range of movement (Active)		
Range of movement (Passive)		
Range of movement (Resisted)		

Method	Advantages	Disadvantages
Postural analysis - Side		
Postural analysis - Front		
Postural analysis - Rear		

Method	Advantages	Disadvantages
Functional tests - Name of test		
Functional tests - Name of test		
Functional tests - Name of test		

Method	Advantages	Disadvantages
Special tests - Name of test		
Special tests - Name of test		
Special tests - Name of test		

Method	Advantages	Disadvantages
Special tests - Name of test		
Special tests - Name of test		
Special tests - Name of test		

5 - Be able to conduct subjective and objective assessment

Using examples of your own client work.

37. Explain how you would carry out subjective assessments of clients.

38. Explain how you would obtain consent for objective assessments and prior to treatment.

39. Explain how you would carry out objective assessments of clients.

40. Explain how to record client information in accordance with professional practice requirements.

41. Explain how to store client's information as legally required.

6 - Be able to devise a sport massage treatment plan

Using your own client work.

42. Explain, with examples, a treatment plan you have devised and provide the rationale for the chosen massage interventions.

43. Give some example of how you would present massage interventions and the rationale to clients.