

# VTCT Level 4 Diploma in Massage for the Complementary Therapist

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Operational start date:	<b>1 February 2016</b>
Total qualification time (TQT):	<b>220</b>
Guided learning (GL):	<b>168</b>
Qualification number:	<b>601/8316/0</b>

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## Statement of unit achievement

By signing this statement of unit achievement you are confirming that all learning outcomes, assessment criteria and range statements (if/where applicable) have been achieved under specified conditions, and that the evidence gathered is authentic.

This statement of unit achievement table must be completed prior to claiming certification.

Unit code	Date achieved	Learner signature	Assessor initials	IV signature (if sampled)
Mandatory units				
UCT11M				
UCT16M				
UCT12M				

# The qualification

## Introduction

The VTCT Level 4 Diploma in Massage for the Complementary Therapist qualification will provide a progression route with advanced technical skills for Level 3 massage therapists.

This qualification will enable you to add additional techniques for treatment application to your existing repertoire whilst further developing your knowledge of the theories and practices for advanced applications of massage.

This qualification is designed to give you the essential knowledge to assist you to provide advanced therapeutic skills within a clinical setting. All units within this qualification are mandatory.

## Prerequisites

To be eligible for registration on this qualification, it is a requirement that you are a qualified complementary therapist holding a Level 3 (or equivalent) qualification in massage. Anatomy and physiology knowledge at Level 3 or equivalent is also a mandatory requirement.

Learners who wish to undertake this qualification must also achieve the VTCT (ITEC) Level 2 Award in Infection Prevention (COVID-19) for Complementary Therapies and Sports Massage qualification or a regulated equivalent.



### Additional information

You are required to demonstrate competent performance to cover all treatments stated in the range.

There will be a number of practical observations and case studies to complete. It is preferable for treatments to be conducted on clients with ailments or medical conditions. During the learning stage the treatments may be simulated on clients who don't have ailments or medical conditions. Professional discussion may be used as supplementary evidence for those criteria that do not naturally occur.

### Progression

This qualification is designed to lead to employment in a variety of roles, either self-employed, in a complementary therapy clinic, beauty or spa facilities or private practice. This qualification may also lead to employment within a hospital, hospice or other healthcare environment.

Further advanced study at Level 4 is also an opportunity, the following VTCT qualification are available:

- VTCT Level 4 Diploma in Providing Therapies for Clients with Cancer or Other Life Limiting Conditions

# Qualification structure

**Total TQT required - 220**

All mandatory units must be completed to achieve this qualification.

## Mandatory units

VTCT unit code	Ofqual unit reference	Unit title	Level
UCT11M	K/507/8520	Interpersonal skills for the complementary therapist	3
UCT16M	M/507/9569	Advanced massage therapy for the complementary therapist	4
UCT12M	D/507/9566	Advanced anatomy and physiology for the complementary therapist	4

# Guidance on assessment

This book contains the mandatory units that make up this qualification. Optional units will be provided in additional booklets (if applicable). Where indicated, VTCT will provide assessment materials. Assessments may be internal or external. The method of assessment is indicated in each unit.

## Internal assessment

*(any requirements will be shown in the unit)*

Assessment is set, marked and internally quality assured by the centre to clearly demonstrate achievement of the learning outcomes. Assessment is sampled by VTCT external quality assurers (EQAs).

## External assessment

*(any requirements will be shown in the unit)*

Externally assessed question papers completed electronically will be set and marked by VTCT.

Externally assessed hard-copy question papers will be set by VTCT, marked by centre staff and sampled by VTCT EQAs.

## Assessment explained

VTCT qualifications are assessed and internally quality assured by centre staff. Work will be set to improve your practical skills, knowledge and understanding. For practical elements, you will be observed by your assessor. All your work must be collected in a portfolio of evidence and cross-referenced to requirements listed in this record of assessment book.

Your centre will have an internal quality assurer (IQA) whose role is to check that your assessment and evidence is valid and reliable and meets VTCT and regulatory requirements.

An EQA, appointed by VTCT, will visit your centre to sample and quality-check assessments, the internal quality assurance process and the evidence gathered. You may be asked to attend on a different day from usual if requested by the EQA.

This record of assessment book is your property and must be in your possession when you are being assessed. It must be kept safe. In some cases your centre will be required to keep it in a secure place. You and your course assessor will together complete this book to show achievement of all learning outcomes, assessment criteria and ranges.



## Creating a portfolio of evidence

As part of this qualification you are required to produce a portfolio of evidence. A portfolio will confirm the knowledge, understanding and skills that you have learnt. It may be in electronic or paper format.

Your assessor will provide guidance on how to prepare the portfolio of evidence and how to show practical achievement and understanding of the knowledge required to successfully complete this qualification. It is this booklet along with the portfolio of evidence that will serve as the prime source of evidence for this qualification.

Evidence in the portfolio may take the following forms:

- Observed work
- Witness statements
- Audio-visual media
- Evidence of prior learning or attainment
- Written questions
- Oral questions
- Assignments
- Case studies

All evidence should be documented in the portfolio and cross-referenced to unit outcomes. Constructing the portfolio of evidence should not be left to the end of the course.

Useful information about VTCT qualifications is detailed in the Learner FAQ section of the VTCT website [www.vtct.org.uk](http://www.vtct.org.uk).

Other questions should be raised with your tutor, lecturer or assessor.

## Case studies

To achieve this qualification you must carry out and document evidence of the following case studies:

**UCT16M - Advanced massage therapy for the complementary therapist:** You must carry out and document a minimum of 30 treatments on 15 clients, with a minimum of two treatments per client.

# Unit assessment methods

This section provides an overview of the assessment methods that make up each unit in this qualification. Detailed information on assessment is provided in each unit.

Mandatory units				
		External	Internal	
VTCT unit code	Unit title	Question paper(s)	Observation(s)	Portfolio of Evidence
UCT11M	Interpersonal skills for the complementary therapist	0	✓	✓
UCT16M	Advanced massage therapy for the complementary therapist	0	✓	✓
UCT12M	Advanced anatomy and physiology for the complementary therapist	0	✗	✓

# Unit glossary

	Description
<b>VTCT product code</b>	All units are allocated a unique VTCT product code for identification purposes. This code should be quoted in all queries and correspondence to VTCT.
<b>Unit title</b>	The title clearly indicates the focus of the unit.
<b>National Occupational Standards (NOS)</b>	NOS describe the skills, knowledge and understanding needed to undertake a particular task or job to a nationally recognised level of competence.
<b>Level</b>	Level is an indication of the demand of the learning experience; the depth and/or complexity of achievement and independence in achieving the learning outcomes. There are 9 levels of achievement within the Qualifications and Credit Framework (QCF).
<b>Guiding learning (GL)</b>	The activity of a learner in being taught or instructed by - or otherwise participating in education or training under the immediate guidance or supervision of - a lecturer, supervisor, tutor or other appropriate provider of education or training.
<b>Total qualification time (TQT)</b>	The number of hours an awarding organisation has assigned to a qualification for Guided Learning and an estimate of the number of hours a learner will reasonably be likely to spend in preparation, study, or any other form of participation in education or training. This includes assessment, which takes place as directed - but, unlike Guided Learning, not under the immediate guidance or supervision of - a lecturer, supervisor, tutor or other appropriate provider of education or training.
<b>Observations</b>	This indicates the minimum number of competent observations, per outcome, required to achieve the unit.
<b>Learning outcomes</b>	The learning outcomes are the most important component of the unit; they set out what is expected in terms of knowing, understanding and practical ability as a result of the learning process. Learning outcomes are the results of learning.
<b>Evidence requirements</b>	This section provides guidelines on how evidence must be gathered.
<b>Observation outcome</b>	An observation outcome details the tasks that must be practically demonstrated to achieve the unit.
<b>Knowledge outcome</b>	A knowledge outcome details the theoretical requirements of a unit that must be evidenced through oral questioning, a mandatory written question paper, a portfolio of evidence or other forms of evidence.
<b>Assessment criteria</b>	Assessment criteria set out what is required, in terms of achievement, to meet a learning outcome. The assessment criteria and learning outcomes are the components that inform the learning and assessment that should take place. Assessment criteria define the standard expected to meet learning outcomes.

# UCT11M

## Interpersonal skills for the complementary therapist

Through this unit you will learn to improve the client's treatment experience through the application of effective communication skills. Good communication is vital in assessing the client's expectations for treatment outcomes.

It has always been the case that discussion on a wide range of issues occurs when touch therapies are applied. The reason a client is seeking complementary therapy treatments may be obscure or the stresses and strains that affect them may be difficult to pinpoint. The manner in which you, the therapist, communicate with the client is as important as the treatment itself. You will work within the limitations of professional complementary therapy practice and know when to advise that further appropriate help is sought.

Level

**3**

Observation(s)

**2**

External paper(s)

**0**



# Interpersonal skills for the complementary therapist

## Learning outcomes

On completion of this unit you will:

1. Be able to apply effective communication skills to identify client requirements
2. Understand how communication skills can be used effectively to identify client requirements

## Evidence requirements

1. *Environment*  
Evidence for this unit may be gathered within the workplace or realistic working environment (RWE).
2. *Simulation*  
Simulated role play scenarios can be practised and assessed to cover the required range of consultations between client and therapist where it does not naturally occur.
3. *Observation outcomes*  
Competent performance of Observation outcomes must be demonstrated on **at least two occasions**. Assessor observations, witness testimonies and products of work are likely to be the most appropriate sources of performance evidence. Professional discussion may be used as supplementary evidence for those criteria that do not naturally occur.  
  
Assessed observations should not be carried out on the same day for the same learning outcome. There should be sufficient time between assessments for reflection and personal development.

You need to meet the same standard on a regular and consistent basis. Separating the assessments by a period of at least two weeks is recommended as competence must be demonstrated on a consistent and regular basis.

4. *Range*  
All ranges must be practically demonstrated or other forms of evidence produced to show they have been covered.
5. *Knowledge outcomes*  
There must be evidence that you possess all the knowledge and understanding listed in the Knowledge section of this unit. In most cases this can be done by professional discussion and/or oral questioning. Other methods, such as projects, assignments and/or reflective accounts may also be used.
6. *Tutor/Assessor guidance*  
You will be guided by your tutor/assessor on how to achieve learning outcomes and cover ranges in this unit. All outcomes and ranges must be achieved.
7. *Prerequisites*  
This unit has been designed for experienced Complementary Therapists who already hold a relevant Level 3 Complementary Therapy qualification and wish to further develop their communication skills
8. *External paper*  
There is no external paper requirement for this unit.

# Achieving observations and range

## Achieving observation outcomes

Your assessor will observe your performance of practical tasks. The minimum number of competent observations required is indicated in the Evidence requirements section of this unit.

Criteria may not always naturally occur during a practical observation. In such instances you will be asked questions to demonstrate your competence in this area. Your assessor will document the criteria that have been achieved through professional discussion and/or oral questioning. This evidence will be recorded by your assessor in written form or by other appropriate means.

Your assessor will sign off a learning outcome when all criteria have been competently achieved.

## Achieving range

The range section indicates what must be covered. Ranges should be practically demonstrated as part of an observation. Where this is not possible other forms of evidence may be produced. All ranges must be covered.

Your assessor will document the portfolio reference once a range has been competently achieved.



# Observations

## Learning outcome 1

### Be able to apply effective communication skills to identify client requirements

You can:

- a. Demonstrate a professional appearance, attitude and behaviour which contribute to the clients trust
- b. Establish a rapport with the client
- c. Communicate effectively with the client
- d. Establish client expectation is realistic in line with expected treatment outcomes

*\* May be assessed by supplementary evidence.*

Observation	1	2
Date achieved		
Criteria questioned orally		
Portfolio reference		
Assessor initials		
Learner signature		



# Range

\*You must practically demonstrate that you have:

Used effective communication skills with <b>all</b> clients	Portfolio reference
Reticent	
Distressed	
Anxious	
Angry	
Forthcoming	

It is strongly recommended that all range items are practically demonstrated. Where this is not possible, other forms of evidence may be produced to demonstrate competence.

# Developing knowledge

## Achieving knowledge outcomes

You will be guided by your tutor and assessor on the evidence that needs to be produced. Your knowledge and understanding will be assessed using the assessment methods listed below\*:

- Projects
- Observed work
- Witness statements
- Audio-visual media
- Evidence of prior learning or attainment
- Written questions
- Oral questions
- Assignments
- Case studies
- Professional discussion

Where applicable your assessor will integrate knowledge outcomes into practical observations through professional discussion and/or oral questioning.

When a criterion has been orally questioned and achieved, your assessor will record this evidence in written form or by other appropriate means. There is no need for you to produce additional evidence as this criterion has already been achieved.

Some knowledge and understanding outcomes may require you to show that you know and understand how to do something. If you have practical evidence from your own work that meets knowledge criteria, then there is no requirement for you to be questioned again on the same topic.

*\*This is not an exhaustive list.*

# Knowledge



## Learning outcome 2

### Understand how communication skills can be used effectively to identify client requirements

You can:	Portfolio reference
a. Describe how professional appearance, attitude and behaviour contribute to client trust	
b. Identify the methods used to achieve effective communication with the client	

# Unit content



This section provides guidance on the recommended knowledge and skills required to enable you to achieve each of the learning outcomes in this unit. Your tutor/assessor will ensure you have the opportunity to cover all of the unit content.

## Learning outcome 1: Be able to apply effective communication skills to identify client requirements

### Behave in a professional manner:

Demonstrate respect to clients and colleagues, demonstrate good communication skills and provide good customer service, explaining the treatment/service/product to the clients. Demonstrate correct client care and professionalism at all times, maintain professional appearance, personal hygiene and behaviour, demonstrate understanding of salon requirements for professional behaviour, only carrying out treatments that you are qualified to practise.

**Professionalism:** The importance of reasons for the consultation process and checking for contra-indications, clear treatment explanation, compliance with any particular rights, restrictions and acts applicable to the respective service or treatment. Understanding the relevant code of practice/ethics, identifying the need for insurance and professional association membership. Demonstrate methods of maintaining client care, protecting client modesty, maintaining a duty of care, your personal appearance and hygiene, trust, confidentiality, the need never to diagnose. How to follow referral procedures. The importance of demonstrating integrity and how all of the above contribute to client trust.

**Establish a rapport:** Ways to ensure the client is relaxed and willing to participate in a discussion, greeting the client by name, using open facial expressions, direct eye contact, appropriate touch, plan

your physical position in relation to the client, posture and demeanour, observe different client body language and make correct responses, physical mirroring and reflecting, empathy vs. sympathy, self disclosure in context, maintaining a positive attitude, establishing trust; ensure form, manner and level of discussion is respectful of the client as an individual and fellow being, acknowledge client characteristics, personal beliefs and preferences.

**Effective communication:** Use good communication skills to optimise the treatment outcomes, use the discussion process to facilitate client communication, achieve effective communication without distress to the client, provide information and explanations which allow the client to make informed choices, enable the client to identify real concerns and objectives, use written word, diagrams as applicable, establish client requirements and expectations, realistic, unrealistic, confirm full and accurate disclosure of information, avoid giving specific guidance in relation to problems or client-identified solutions, ensure all constraints on communication are identified and minimised, ensure the client remains in control at all times, maintain records without causing distress to the client and with the client's full approval, remain detached from the client's problems, remain within the therapist's professional limitations and do not become a substitute for other professional help.



## Learning outcome 1: Be able to apply effective communication skills to identify client requirements (continued)

### **Effective interpretations of the communication outcomes:**

Make treatment recommendations based upon consultation, information gathered and relevant tests, to select, adapt and provide the correct treatment, products, tools and equipment based upon client consultation, needs and preferences and make further recommendations for on-going treatments, home and aftercare advice, check the client's understanding, know how and when to provide written confirmation/information. Know how to assess the client's commitment, the possible restrictions to ongoing treatment. Also know how to identify when it is not appropriate to treat a client.

### **Understand the importance of providing the client with clear advice and recommendations:**

Give a clear explanation of treatment, product and/or service to facilitate the client's understanding, confirming your understanding of the client's needs and wishes. The need for clear explanations of how the provision of therapy treatments/products can meet the client's expected outcomes, the scope of therapy and its limitations, full and accurate information and explanations which allow the client to make informed choices. Know how to encourage the client to judge the overall appropriateness of each option and why the client is encouraged to choose an option. Know how to establish client expectations from the therapy treatment. Know how to confirm mutual understanding between the client and therapist. Know how to answer client's questions fully and accurately, identify the client's preferred course of treatment plan, short term, medium term and long

term goals. The possible likelihood of a successful outcome, the plan for future course of treatment, client options relating to acceptable referrals to the medical profession or other therapies where it arises.



## Learning outcome 2: Understand how communication skills can be used effectively to identify client requirements

**Professional appearance:** The reasons why you need to wear the appropriate uniform/professional dress, name badge, have neatly groomed hair, wear minimal or no jewellery.

**Professional attitudes:** Show confidence in your abilities; be sensitive, supportive and attentive. Have a respectful approach, positive attitude, integrity and good time-keeping. Demonstrate understanding of personal space and how invading it can make the client feel uncomfortable. Understand the different aspects to consider which may affect their comfort i.e. ethnicity, age, gender, religious beliefs, nationality, sexual orientation, education, physical appearance, etiquette, social class, economic status.

**Professional behaviour:** Display appropriate qualifications and professional membership and insurance certificates, provide a suitable treatment room appropriately set up, ensure that client records are accurate and confidentiality is maintained. Do not use or have mobile phone on show – even for timekeeping purposes.

**Verbal communication:** Verbal mirroring (visual, auditory, kinaesthetic (Thinking Styles: Steven Covey, 2004)), open questions, closed questions, paraphrasing, volume and pace, responsiveness.

**Listening skills and non-verbal communication:** Active listening, non-verbal language, eye contact, facial expressions, therapist and client body language, consider verbal and non-verbal nuances of the client and appropriate responses.

**Communication difficulties:** Constraints on communication, client, therapist, ethical constraints, cultural differences, language barriers, environmental issues arising from the client's situation, client's ability to communicate fully, inability to communicate or understand, unwillingness or reluctance to communicate, presence of carer or other, differences in communication.

**Clients:** Reticent, distressed, angry, anxious, forthcoming.

**Adaptation of communication techniques:** Verbal is used when communicating with clients face to face, or on the telephone, it aids in the provision of and/or gathering information for consultation and retail opportunity purposes. Non-verbal methods are actively employed to give encouragement and/or convey empathy. Body language is utilised to project professional persona or 'open' body language to appear less intimidating. Further adaptation techniques include use of Braille home care advice leaflets for blind clients, use of sign language for deaf clients, use of written information for mail shots, or for promotions and advisory purposes. The use of telephone to book and/or confirm appointments. The use of text message service to confirm appointments or e-mail to contact customers, communication is also adapted to the use of websites and ICT to advertise services and treatments.

**Communication through consultation:** Consulting is most effectively done in a private, comfortable area. The use of positive body language, positioning of the client (no barriers between you and the client) appropriately adapted communication skills (asking open and/



## Learning outcome 2: Understand how communication skills can be used effectively to identify client requirements (continued)

or closed questions where appropriate) as well as using verbal and non-verbal techniques. The demonstration of your professionalism, confidence and enthusiasm will assist effective communication outcomes.

**Advantages and disadvantages of different types of communication:** All forms of communication have advantages and disadvantages, it is essential that you are aware of these in order to select the most appropriate methods to use with your client for effective communication to identify the client's needs and expectations. The positive and negative aspects of the following methods; indirect verbal (via 3rd person), verbal, non-verbal, Braille, larger text on documents, sign language, text messaging service, body language, written, telephone, e-mail.

# UCT16M

## Advanced massage therapy for the complementary therapist

In this unit, you will build upon previous knowledge, skills and experience of massage therapy, with particular focus on using additional assessment techniques and advanced massage skills to address dysfunctional tissue, derived from lifestyle, posture and the general aging process.

This unit will introduce the relevant skills, knowledge and understanding needed to gather and analyse information elicited during subjective and objective client assessments. This will include exploration of the factors that may predispose clients to imbalance and dysfunction and how factors may influence the client's ability or willingness to rebalance and reasons for referral/deferral. A number of objective assessment techniques are introduced to include detailed assessment of soft tissue and muscle testing. To underpin the new range of objective tests, the bony and soft structures of the major joints of the body are revisited to give you a greater anatomical understanding and to facilitate practical application.

You will also evaluate the range of objective testing as to the appropriateness and value of the information they elicit. You will be able to utilise your new toolbox of skills and understanding to tailor your massage treatments to your individual client needs to promote restoration of dysfunctional tissue, health, balance and wellbeing.

Level

**4**

Observation(s)

**2**

External paper(s)

**0**



# Advanced massage therapy for the complementary therapist

## Learning outcomes

On completion of this unit you will:

1. Be able to conduct subjective and objective assessment
2. Be able to devise treatment plans using advanced massage techniques
3. Be able to prepare for advanced massage techniques
4. Be able to apply advanced massage techniques
5. Be able to bring advanced massage treatments to a close
6. Understand the influences and effects of client information on treatment planning
7. Understand the principles and practice of objective assessment techniques
8. Understand the principles and practice of advanced massage techniques

## Evidence requirements

1. *Environment*  
Evidence for this unit may be gathered within the workplace or realistic working environment (RWE).
2. *Simulation*  
Simulation is not allowed in this unit.
3. *Observation outcomes*  
Competent performance of Observation outcomes must be demonstrated on **at least two occasions**. Assessor observations, witness testimonies and products of work are likely to be the most appropriate sources of performance evidence. Professional discussion may be used as supplementary evidence for those criteria that do not naturally occur.

Assessed observations should not be carried out on the same day for the same learning outcome. There should be sufficient time between assessments for reflection and personal development.

You need to meet the same standard on a regular and consistent basis. Separating the assessments by a period of at least two weeks is recommended as competence must be demonstrated on a consistent and regular basis.

4. *Range*  
All ranges must be practically demonstrated or other forms of evidence produced to show they have been covered.
5. *Prerequisites*  
You should hold a Level 3 massage and Level 3 anatomy and physiology qualification. Your centre will have ensured that you have the required knowledge, understanding and skills to enrol and successfully achieve this qualification.
6. *Case studies*  
You must carry out and document a minimum of 30 treatments on 15 clients, with a minimum of two treatments per client.
7. *Knowledge outcomes*  
There must be evidence that you possess all the knowledge and understanding listed in the Knowledge section of this unit. In most cases this can be done by professional discussion and/or oral questioning. Other methods, such as projects, assignments and/or reflective accounts may also be used.
8. *Tutor/Assessor guidance*  
You will be guided by your tutor/assessor on how to achieve learning outcomes and cover ranges in this unit. All outcomes and ranges must be achieved.
9. *External paper*  
There is no external paper requirement for this unit.

# Achieving observations and range

## Achieving observation outcomes

Your assessor will observe your performance of practical tasks. The minimum number of competent observations required is indicated in the Evidence requirements section of this unit.

Criteria may not always naturally occur during a practical observation. In such instances you will be asked questions to demonstrate your competence in this area. Your assessor will document the criteria that have been achieved through professional discussion and/or oral questioning. This evidence will be recorded by your assessor in written form or by other appropriate means.

Your assessor will sign off a learning outcome when all criteria have been competently achieved.

## Achieving range

The range section indicates what must be covered. Ranges should be practically demonstrated as part of an observation. Where this is not possible other forms of evidence may be produced. All ranges must be covered.

Your assessor will document the portfolio reference once a range has been competently achieved.

## Case studies sign off

To achieve this unit you must carry out and document evidence for a minimum of **30 recorded treatments** on a minimum of 15 clients with a minimum of two treatments per client.

Your assessor will complete the table below when the requirements have been completed and are documented in your portfolio of evidence.

Date achieved	Assessor initials



# Observations

## Learning outcome 1

### Be able to conduct subjective and objective assessment

You can:

- a. Carry out subjective assessments of clients
- b. Obtain consent for objective assessments
- c. Carry out objective assessments of clients
- d. Record client information in accordance with professional practice requirements\*

\* May be assessed by supplementary evidence.

Observation	1	2
Date achieved		
Criteria questioned orally		
Portfolio reference		
Assessor initials		
Learner signature		



## Learning outcome 2

### Be able to devise treatment plans using advanced massage techniques

You can:

- a. Devise a treatment plan
- b. Explain the rationale for the chosen massage interventions to the client
- c. Obtain consent for the treatment

*\*May be assessed by supplementary evidence.*

Observation	1	2
Date achieved		
Criteria questioned orally		
Portfolio reference		
Assessor initials		
Learner signature		



## Learning outcome 3

### Be able to prepare for advanced massage techniques

You can:

- a. Prepare the client for advanced massage techniques in accordance with workplace regulations

*\* May be assessed by supplementary evidence.*

Observation	1	2
Date achieved		
Criteria questioned orally		
Portfolio reference		
Assessor initials		
Learner signature		



## Learning outcome 4

### Be able to apply advanced massage techniques

You can:

- a. Provide advanced massage techniques
- b. Monitor client and tissue response throughout treatments
- c. Adapt advanced massage techniques to meet the needs of the client

*\*May be assessed by supplementary evidence.*

Observation	1	2
Date achieved		
Criteria questioned orally		
Portfolio reference		
Assessor initials		
Learner signature		



## Learning outcome 5

### Be able to bring advanced massage treatments to a close

You can:

- a. Obtain feedback from the client
- b. Provide homecare/aftercare advice
- c. Evaluate the treatment sessions and outcomes\*
- d. Record treatment information as legally required\*
- e. Reflect on own performance\*

\*May be assessed by supplementary evidence.

Observation	1	2
Date achieved		
Criteria questioned orally		
Portfolio reference		
Assessor initials		
Learner signature		



# Range

\*You must practically demonstrate that you have:

Palpated a minimum of 15 bony landmarks	Portfolio reference
Acromion process	
Anterior/medial borders of tibia	
Anterior superior iliac spine	
Calcaneus	
Clavicle	
Coracoid process	
Greater trochanter	
Head of fibula	
Head of radius	
Iliac crest	
Inferior angle of scapula	
Ischial tuberosity	
Lateral epicondyle	
Lateral borders of scapula	
Lateral femoral condyle	
Mastoid process	
Medial border of scapula	
Medial epicondyle	
Medial femoral condyle	
Medial and lateral malleolus	
Occipital process	

It is strongly recommended that all range items are practically demonstrated. Where this is not possible, other forms of evidence may be produced to demonstrate competence.



**\*You must practically demonstrate that you have:**

Palpated a minimum of 15 bony landmarks (cont)	Portfolio reference
Olecranon process	
Patella	
Pisiform	
Posterior superior iliac spine	
Pubic tubercles	
Sacrum	
Scaphoid	
Spine of scapula	
Spinous process C6 C7	
Spinous process T3 T7	
Spinous process L4 L5	
Talus	
Tibial tuberosity	

It is strongly recommended that all range items are practically demonstrated. Where this is not possible, other forms of evidence may be produced to demonstrate competence.



**\*You must practically demonstrate that you have:**

Palpated a minimum of 6 joint lines	Portfolio reference
Ankle	
Acromioclavicular	
Elbow	
Hip	
Knee	
Radioulnar	
Sacroiliac	
Shoulder	
Sternoclavicular	
Wrist	
Palpated a minimum of 10 origins, insertions and bellies of muscles	Portfolio reference
Adductor longus and magnus	
Biceps brachii	
Biceps femoris	
Gastrocnemius	
Gluteus medius	
Gluteus maximus	
Gracilis	
Infraspinatus	
Intercostals	
Latissimus dorsi	
Levator scapulae	
Pectoralis major	
Piriformis	

It is strongly recommended that all range items are practically demonstrated. Where this is not possible, other forms of evidence may be produced to demonstrate competence.



**\*You must practically demonstrate that you have:**

Palpated a minimum of 10 origins, insertions and bellies of muscles (cont)	Portfolio reference
Quadratus lumborum	
Rectus femoris	
Semimembranosus, semitendinosus	
Soleus	
Subscapularis	
Supraspinatus	
Tensor fascia latae	
Teres major and minor	
Tibialis anterior	
Trapezius	
Triceps brachii	
Vastus lateralis	
Vastus medialis	
Used <b>all</b> advanced massage techniques	Portfolio reference
Trigger points	
Muscle energy techniques	
Connective tissue	
Soft tissue release	

It is strongly recommended that all range items are practically demonstrated. Where this is not possible, other forms of evidence may be produced to demonstrate competence.

# Developing knowledge

## Achieving knowledge outcomes

You will be guided by your tutor and assessor on the evidence that needs to be produced. Your knowledge and understanding will be assessed using the assessment methods listed below\*:

- Projects
- Observed work
- Witness statements
- Audio-visual media
- Evidence of prior learning or attainment
- Written questions
- Oral questions
- Assignments
- Case studies
- Professional discussion

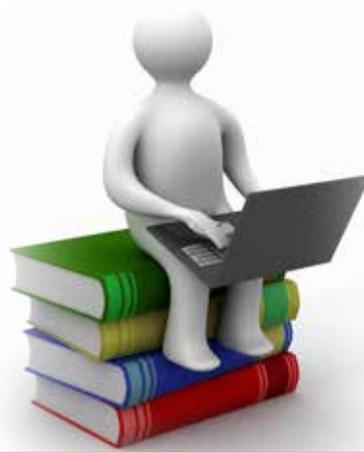
Where applicable your assessor will integrate knowledge outcomes into practical observations through professional discussion and/or oral questioning.

When a criterion has been orally questioned and achieved, your assessor will record this evidence in written form or by other appropriate means. There is no need for you to produce additional evidence as this criterion has already been achieved.

Some knowledge and understanding outcomes may require you to show that you know and understand how to do something. If you have practical evidence from your own work that meets knowledge criteria, then there is no requirement for you to be questioned again on the same topic.

*\*This is not an exhaustive list.*

# Knowledge



## Learning outcome 6

### Understand the influences and effects of client information on treatment planning

You can:	Portfolio reference
a. Explain factors which may predispose clients to imbalance and dysfunction	
b. Explain how factors may influence a client's body's ability to rebalance	
c. Give examples of how subjective information may influence treatment planning	
d. Identify reasons for treatment deferral and referral	



## Learning outcome 7

### Understand the principles and practice of objective assessment techniques

You can:	Portfolio reference
<p>a. Explain the methods and purpose for a range of objective assessment techniques:</p> <ul style="list-style-type: none"><li>• Asymmetry</li><li>• Assessment of soft tissue</li><li>• Range of movement (Active, Passive, Resisted)</li><li>• Postural analysis</li><li>• Muscle/special tests</li></ul>	
<p>b. Explain how to interpret the findings for each objective assessment technique</p>	
<p>c. Critically evaluate the range of objective assessment methods used to gather information</p>	



## Learning outcome 8

### Understand the principles and practice of advanced massage techniques

You can:	Portfolio reference
a. Describe the range of advanced massage techniques: <ul style="list-style-type: none"><li>• Trigger points</li><li>• Muscle energy techniques</li><li>• Connective tissue</li><li>• Soft tissue release</li></ul>	
b. Explain the protocols to follow for each advanced massage technique	
c. Critically evaluate the effects of each advanced massage technique	

# Unit content



This section provides guidance on the recommended knowledge and skills required to enable you to achieve each of the learning outcomes in this unit. Your tutor/assessor will ensure you have the opportunity to cover all of the unit content.

## Learning outcome 1: Be able to conduct subjective and objective assessment

**Carry out subjective assessment:** Age and occupation, activity levels, leisure activities, previous medical history, medication, other lifestyle factors (stress, diet, dependants); aims and objectives of treatment, perceived problem, site and spread of symptoms, behaviour of symptoms, onset and duration of symptoms, aggravating and relieving factors.

**Obtain consent for objective assessment:** Verbal, written, prior to and during assessment, therapists explains nature and purpose of assessment, risks, alternatives, effects.

**Carry out objective assessments:** Asymmetry, range of movement – active, passive, resisted, postural analysis, muscle/special tests.

**Record information:** In accordance with requirements (legal, professional practice).

**Store information:** As legally required.

## Learning outcome 2: Be able to devise treatment plans using advanced massage techniques

**Devise treatment plan:** From subjective and objective information gathered, meet client objectives.

**Advanced massage techniques:** Trigger points, muscle energy techniques, connective tissue, soft tissue release.

**Explain rationale:** Verbal to client, for chosen massage interventions.

**Obtain consent:** Verbal, written (signature), prior, ongoing muscle/special tests.



### Learning outcome 3: Be able to prepare for advanced massage techniques

**Prepare treatment environment:** Layout, temperature, ventilation, lighting, music, hygiene and ambience.

**Prepare resources for client:** Consultation form/record card, treatment plan, authorisation of any third party, referral from medical or healthcare practitioner), prepare to ensure comfort and privacy are maintained.

**Preparation of self:** Physically and mentally, energy field, grounding, appropriate clean and pressed work wear, closed-in footwear (low heel), clean and professional appearance (hair clean and away from face, freshly showered, short unpolished nails, no jewellery (except wedding band), fresh breath, no perfume worn), professional conduct and behaviour.

**Select equipment and materials:**

Treatment couch/chair, couch covers, couch roll, capped bottles, foot stool/steps, bolsters/supports, trolley, tissues, waste bin/bag, sanitising products.

**Use and storage of materials:** Correctly and safely, resources which are available to the therapist.

**Workplace legislation:** National and local work practices, in accordance with current legislation, professional codes of practice, health and safety, equality and diversity, data protection, employment, consumer protection, risk assessment, manual handling, liability insurance, control of substances hazardous to health, handling, storage, disposal of waste, fire precautions, hygienic practices, environmental protection.

### Learning outcome 4: Be able to apply advanced massage techniques

**Provide advanced massage treatments:**

Assist client onto treatment couch/chair as required, ensure client safety, comfort and dignity, positioning of client (side lying, seated, prone, supine), position for effective application of different techniques, use of support bolsters, therapist's posture, balance of body weight.

**Range of advanced massage techniques:** Soft tissue release, connective tissue, muscular energy techniques and trigger points.

**Monitor tissue response throughout treatments:** Pain, erythema, tissue appearance or texture changes.

**Gain feedback:** Opportunities before, during, after treatment, empowerment, verbal and non-verbal communication.

**Adapt advanced massage techniques:**

To meet needs of client, verbal or visual indications, skin texture, elasticity, contra-indications, safety, mobility, goals, physiological, psychological.



## Learning outcome 5: Be able to bring advanced massage treatments to a close

**Feedback:** Client feedback (on individual session or programme of treatments), client opinion on the effectiveness and appropriateness of methods used, review outcomes of treatment, emotional and physical responses, review progress. Subjective and objective information (verbal, non-verbal, feedback forms), use information as basis for amendments to programme, obtain client's agreement and consent.

**Adapt treatment plans:** Reassess, to meet client goals, consider other options.

**Homecare/aftercare advice:** Provide opportunity for questions, within scope of practice, possible adverse reactions (contra-actions), homecare product, rest, hydration, referral.

**Feedback:** Self-evaluation of treatment, client feedback (session or programme of treatments), review effectiveness and

appropriateness of methods used, review outcomes of treatment, review progress, refer where outside of scope of practice, subjective and objective information (verbal, non-verbal, feedback forms), use information as basis for amendments to programme, obtain clients agreement and consent.

**Record:** As legally required, feedback from client, outcomes, observations, changes to plan, referral, further appointments.

**Self-reflection:** Evaluate own performance constructively, consider - what (what happened, strengths, weaknesses, areas to develop), so what (the consequences), what next (what will you do to improve your practice), what now (additional learning needed, CPD, further study).

**Monitor:** Own personal development, changes in self, record responses to change.

## Learning outcome 6: Understand the influences and effects of client information on treatment planning

**Predisposing factors to imbalance and dysfunction:** Lifestyle, age, diet, previous injury, levels of activity, levels of fitness, stress, rest, gender, body composition, imbalances, anatomy, health, how factors can influence.

**Factors influencing ability to rebalance:** Fitness levels, health, psychosocial, psychosomatic, stress, incentive, lifestyle.

**Subjective information and influence on planning:** Psychological, severity, irritability, acute/chronic, contra-indications,

to inform treatment plan, needs of client and preferences, pre-existing conditions, medical history, previous treatment, current treatment objective, time availability and money.

**Reasons for deferral and referral:** Contra-indications, contra-actions, acute inflammation, fractures/breaks, referral if treatment is not working, results are unpredictable, beyond scope of practice, best interests of client.



## Learning outcome 7: Understand the principles and practice of objective assessment techniques

**Asymmetry (methods):** Visual observation, postural grid, apps, photography, anterior, posterior and lateral view, comparison to contralateral side, distance from mid-line, unequal levels, measurement from bony landmarks).

**Asymmetry (purpose):** Muscle imbalance, skeletal fault, joint malfunction, determine centre of gravity, identify over or under developed muscles, provide baseline assessment.

### Range of movement (methods):

**Active** – patient carries out movement, goniometer, visual observation, compare to contra-lateral limb, good limb first.

**Passive** – therapist moves joint through planes of movement normal to joint, assessment stops should pain occur, overpressure at end of range to assess for joint end feel, comparison to contra-lateral limb.

**Resisted** – resistance applied by therapist to cause an isometric contraction of muscle being tested, muscle tested mid range, pressure applied at distal part of limb, slow smooth application of pressure, stabilise joint above, ensure recruitment of muscle being tested only, hold 10-20 seconds, Cyriax scale, Oxford scale, comparison to contralateral limb).

### Range of movement (purpose):

**Active** – assess limitations in ROM, quality/ease of movement, patients willingness to move joint, determine point of onset of pain, identify crepitus, provides baseline measurement.

**Passive** – identify hypo or hypermobility, provide information about joint capsule,

ligaments and muscle tone.

**Resisted** – test muscle strength, provides baseline measurement.

**Postural analysis (methods):** Visual observation, plumb line, apps, postural grid, goniometer, photography, anterior, posterior and lateral views, spinal alignment and curves, trunk rotation.

**Postural analysis (purpose):** Muscle imbalance, skeletal fault, joint malfunction, determine centre of gravity, identify over or under developed muscles, provide baseline assessment.

### Muscle/special tests (methods):

**Ankle** – bump test (percussion test), Thompson squeeze or Flipper Test, calf length test.

**Knee** – patella tap, sweep (effusion), patella maltracking (lateral pull test), modified Ober's test, Noble's test.

**Hip** – Trendelenburg, Thomas Test, Kendall Test, leg length (true and apparent), modified Ober's Test, piriformis length test.

**Shoulder** – arm drop test, painful arc test, empty can test, Apley's scratch test, Speed's test, active impingement test (Neer's test), impingement relief test, Gerber's lift off sign, Hawkins Kennedy test.

**Elbow** – Mill's test, Cozen's sign, passive test (medial epicondylitis).

**Wrist and hand** – metacarpal and carpal percussion, scaphoid load test, trigger finger test, Jersey finger sign, mallet finger test, Finkelstein test, Phalen's test, reverse Phalen's test.



## Learning outcome 7: Understand the principles and practice of objective assessment techniques (continued)

**Back conditions** – straight leg raise and/or slump.

**Interpretation of findings:** Within scope of practice, non-diagnostic, identify problematic tissues, relate subjective to objective information, creation of hypothesis based on clinical reasoning, refer if necessary, explanation of anticipated positive and negative findings of assessment techniques: asymmetry, range of movement (active, passive, resisted), postural analysis, muscle tests.

**Critically evaluate:** Range of objective methods, reliability, validity.



## Learning outcome 8: Understand the principles and practice of advanced massage techniques

### Range of advanced massage techniques:

**Trigger points** – muscular, active, latent, referral pain patterns.

**Muscle energy techniques** – reciprocal inhibition (RI), post isometric relaxation (PIR), performed on muscle groups.

**Connective tissue** – skin rolling, multi-directional, stretch and hold.

**Soft tissue release** – passive, longitudinal, transverse.

### Protocols for range of advanced massage techniques:

**Soft tissue release** – through fabric or skin contact, lock applied with various applicators (forearm, elbow, fist, palm, grip, reinforced thumbs, tools), angle of application and depth of pressure, lock applied with muscle in relaxed position, limb moved to facilitate a stretch, work proximal to distal, avoid bony structures, neural plexus, passive, active assisted, resisted.

**Soft tissue release (cautions)** – acute injury, fragile skin, easy bruising, hypermobility, usual contra-indications to massage.

**Connective tissue** – no lubricant; applicator (hands, forearms, fingers, thumbs), skin rolling (skin lifted from underlying fascia, skin fold rolled forward in varying directions, even glide), slow, sustained pressure; longitudinal, diagonal or cross-fibre, slight downward pressure combined with horizontal drag, fibres elongated beyond point of bind, held until tissue releases, client may experience burning/pulling sensation.

**Connective tissue (cautions)** – usual contra-indications to massage, connective

tissue disease.

**Trigger points** – reinforced thumb/fingers, elbow, tool, palpation to locate TP, referred pain patterns, latent, active, apply gradual increasing pressure, tolerable pain level, maintain pressure until discomfort eases (up to 90 seconds), ischaemic compression, pinching pressure or repeated deep compressions, avoid neural plexus, contractions (bruising, tenderness), stretches following treatment to maximise effect.

**Trigger points (cautions)** – acute injury, fragile skin, easy bruising, haemophilia, usual contra-indications to massage.

### Muscle energy techniques (application)

- **reciprocal inhibition (RI)** – target muscle lengthened just short of restriction, antagonist isometrically contracted against therapist resistance, 20-50% contraction, 7-12 second hold, contraction relaxed, patient inhales, target muscle lengthened to new position with exhalation, 3-4 repetitions, final position held for 30 seconds, performed on muscle groups.

**Muscle energy techniques (application-post isometric relaxation (PIR))** – target muscle lengthened just short of restriction, agonist isometrically contracted against therapist resistance, 20-50% contraction, 7-12 second hold, contraction relaxed, patient inhales, target muscle lengthened to new position with exhalation, 3-4 repetitions; final position held for 30 seconds, performed on muscle groups.

**Muscle energy techniques (cautions)** – fractures, avulsion injuries, osteoporosis, hypermobility, mental incapacity to follow instructions.



## Learning outcome 8: Understand the principles and practice of advanced massage techniques (continued)

**Evaluate effects:** Client feedback, tissue change (appearance and/or texture), change in range of movement, change in quality of movement, reduction in pain, increased extensibility of tissue, achievement of aims and objectives.

# UCT12M

## Advanced anatomy and physiology for the complementary therapist

The aim of this unit is to enhance your understanding of advanced anatomical and physiological principles relevant to the application of complementary therapy on the client's physiological and psychological state.

You will also learn to critically evaluate the physiological and psychological effects of complementary therapy treatments.

Level

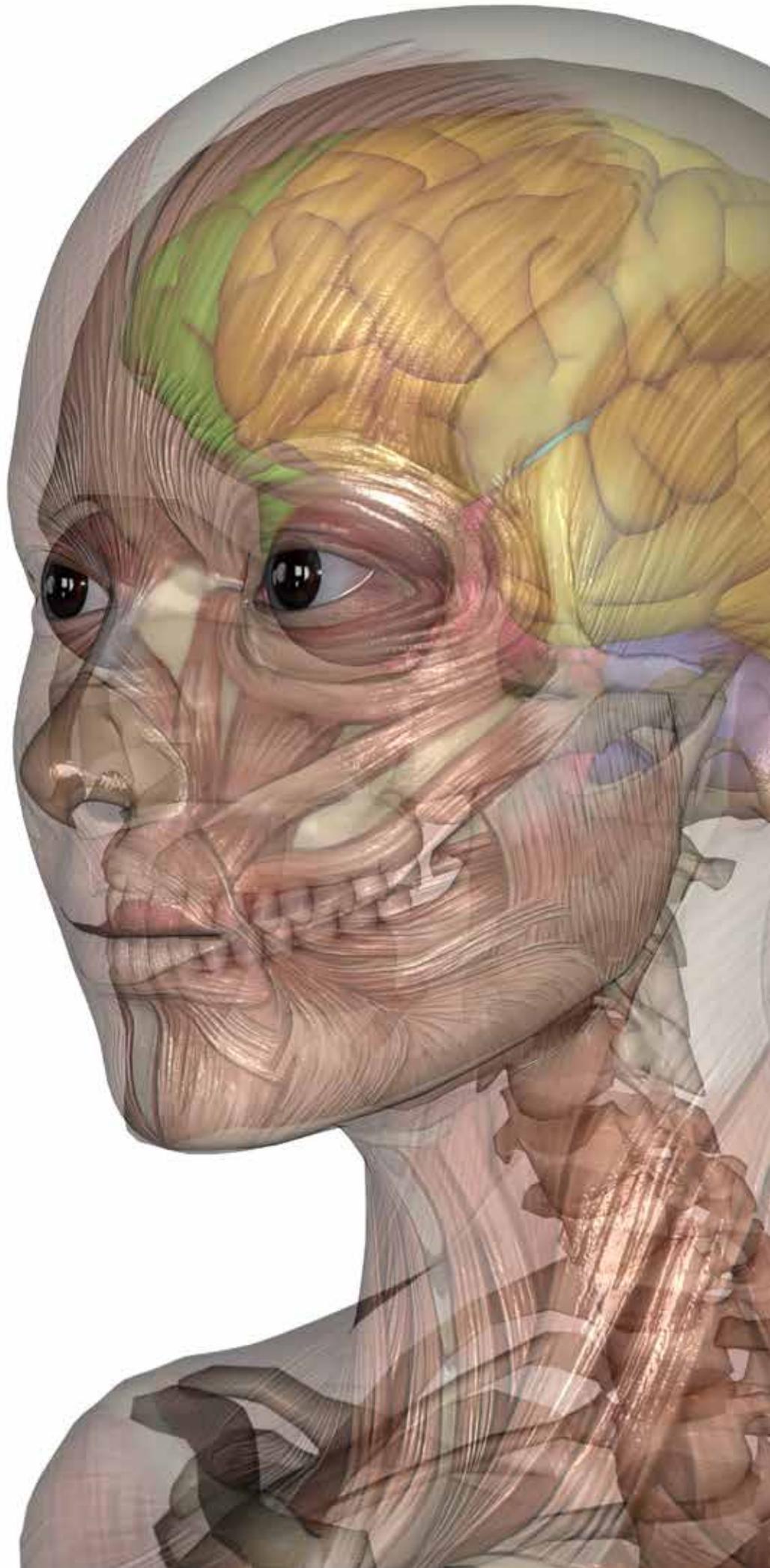
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Observation(s)

0

External paper(s)

0



# Advanced anatomy and physiology for the complementary therapist

## Learning outcomes

On completion of this unit you will:

1. Understand the anatomy and physiology of the major joints of the body
2. Understand the effects of postural deviations on human function
3. Understand the importance of knowledge of anatomy and physiology for complementary therapies
4. Understand the physiological and psychological effects of complementary therapies

## Evidence requirements

1. *Knowledge outcomes*  
There must be evidence that you possess all the knowledge and understanding listed in the Knowledge section of this unit. In most cases this can be done by professional discussion and/or oral questioning. Other methods, such as projects, assignments and/or reflective accounts may also be used.
2. *Tutor/Assessor guidance*  
You will be guided by your tutor/assessor on how to achieve learning outcomes in this unit. All outcomes must be achieved.
3. *Prerequisites*  
No formal qualifications are required prior to undertaking this qualification. However, it has been designed for experienced practitioners of complementary therapy who already hold a relevant Level 3 anatomy and physiology and wish to further develop their knowledge and understanding of the subject.
4. *External paper*  
There is no external paper requirement for this unit.

# Developing knowledge

## Achieving knowledge outcomes

You will be guided by your tutor and assessor on the evidence that needs to be produced. Your knowledge and understanding will be assessed using the assessment methods listed below\*:

- Projects
- Observed work
- Witness statements
- Audio-visual media
- Evidence of prior learning or attainment
- Written questions
- Oral questions
- Assignments
- Case studies
- Professional discussion

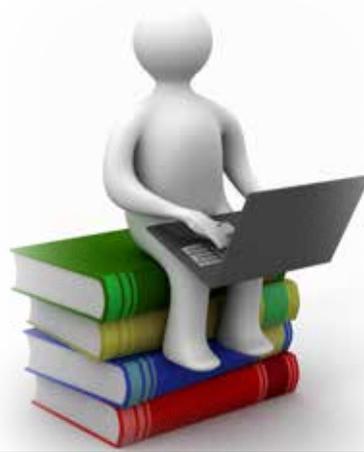
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# Knowledge



## Learning outcome 1

### Understand the anatomy and physiology of the major joints of the body

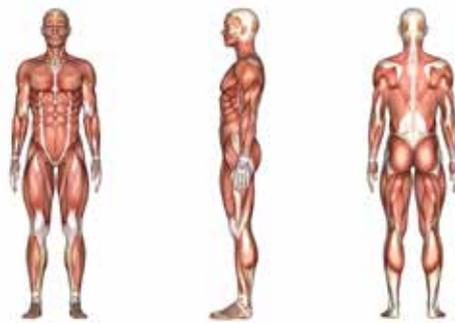
You can:	Portfolio reference
a. Identify bony structures associated with the major joints	
b. Explain the functions of bony structures associated with the major joints	
c. Identify soft tissue located at the major joints	
d. Explain the function of soft tissue structures located at the major joints	



## Learning outcome 2

### Understand the effects of postural deviations on human function

You can:	Portfolio reference
a. Describe the characteristics of common postural faults	
b. Explain the effects of postural deviations	
c. Explain how the aging process affects the musculo-skeletal systems	



### Learning outcome 3

## Understand the importance of knowledge of anatomy and physiology for complementary therapies

You can:	Portfolio reference
a. Outline the importance to the complementary therapist of an advanced knowledge of anatomy and physiology	
b. Describe and define the anatomy relevant to complementary therapies	
c. Describe and define the physiology relevant to complementary therapies	



## Learning outcome 4

### Understand the physiological and psychological effects of complementary therapies

You can:	Portfolio reference
a. Critically evaluate the physiological effects of complementary therapy treatments	
b. Critically evaluate the psychological effects of complementary therapy treatments	

# Unit content



This section provides guidance on the recommended knowledge and skills required to enable you to achieve each of the learning outcomes in this unit. Your tutor/assessor will ensure you have the opportunity to cover all of the unit content.

## Learning outcome 1: Understand the anatomy and physiology of the major joints of the body

### Identify Bony Structures:

#### Ankle and foot

Joint line – talocalcaneal, subtalar.

Landmarks – medial/lateral malleolus, peroneal tubercle, navicular tuberosity, talar dome, tarsals, metatarsals, phalanges.

#### Knee

Joint line – tibiofemoral (lateral and medial).

Landmarks – superior pole of patella, inferior pole of patella, lateral and medial femoral condyle, tibial tuberosity, lateral and medial femoral epicondyle, head of fibula, adductor tubercle, pes anserine, lateral and medial tibial epicondyle.

#### Hip

Joint line – femoroacetabular, sacroiliac.

Landmarks – iliac crest, anterior superior iliac spine, anterior inferior iliac spine, posterior superior iliac spine, ischial tuberosity, pubic tubercles, greater trochanter.

#### Shoulder

Joint line – glenohumeral, acromioclavicular, sternoclavicular.

Landmarks – acromion process, coracoid process, greater tubercle, lesser tubercle, lateral/medial border of scapula, inferior/superior angle of scapula, spine of scapula, clavicle.

#### Elbow

Joint line – radioulnar, humeroulnar, humeroradial.

Landmarks – lateral and medial epicondyle, head of radius, olecranon process.

#### Wrist/hand

Joint line – radiocarpal, ulnocarpal.

Landmarks – radial and ulnar styloid processes, carpals, metacarpals, phalanges.

#### Spine/head/thorax

Joint line – posterior sacroiliac joint.

Landmarks – spinous process of C7, T3, T7, L4, sacrum, occipital process, mastoid process.

### Functions of bony structures:

Attachments for ligaments, origin and insertion for muscles, location identifier.

### Identify soft tissue structures:

**Ankle and foot** – anterior and posterior talofibular ligament, calcaneofibular ligament, Achilles tendon, deltoid ligament, plantar fascia, short and long plantar ligament, spring ligament, retinaculum (anterior, lateral, posterior), deep and superficial Achilles bursa, interosseous membrane, retinaculum.

**Knee** – lateral collateral ligament, medial collateral ligament, patellar tendon, medial and lateral meniscus, Bursa (pes anserine, prepatellar, suprapatellar, superficial infrapatellar).



## Learning outcome 1: Understand the anatomy and physiology of the major joints of the body (continued)

**Hip** – inguinal ligament, superficial and deep trochanteric bursa, ischial bursa, ischiofemoral, iliofemoral, pubofemoral ligaments, labrum, sciatic and femoral nerve.

**Shoulder** – acromioclavicular ligament, coracoclavicular ligament, coracoacromial ligament, sternoclavicular ligament, interclavicular ligament, glenohumeral ligaments, coracohumeral ligament, transverse humeral ligament, subacromial bursa, bicep tendon, labrum, brachial plexus pathway.

**Elbow** – lateral and medial collateral ligaments, annular ligament, olecranon bursa, interosseous membrane.

**Wrist and hand** – radiocarpal and ulnocarpal collateral ligaments, flexor retinaculum, interosseous membrane, carpal tunnel, (tunnel of Guyon), ulnar, median and radial nerve.

**Spine/head** – posterior sacroiliac ligaments, sacrospinous ligament, sacrotuberous ligament, iliolumbar ligament, supraspinous ligament, ligamentum nuchae, sciatic nerve, knowledge of sacral/lumbar plexus.

### Function of soft tissue structures:

Tendons (connect muscle to bone), ligaments (connect bone to bone), bursa (reduces friction between tendons and bones, dissipates force), fascia (reduces frictions between muscles, keeps organs in cavities, provides a flexible covering for nerves and blood vessels as they pass through other tissue), synovial membranes (releases synovial fluid to lubricate joint, supplies nutrients to a vascular cartilage).



## Learning outcome 2: Understand the effects of postural deviations on human function

**Common postural faults:** Centre of gravity (lateral), upper and lower cross syndrome, scoliosis, hyper and hypo lordosis, hyper and hypo kyphosis, sway back, neutral spine, military, slumped, flat back, dowagers hump, posterior, anterior, lateral pelvic tilt and rotations, occupational related postures.

**Characteristics of common postural faults:** Shortening or lengthening of associated muscles, pain in affected areas i.e. neck, lumbar, hips, knees etc., headaches, poor circulation, muscle imbalances, reduced mobility and function, antalgic gait, physical deformity.

**Effects of postural deviations:** Compensatory somatic patterns, physiological effects, psychological effects, effects on lifestyle (negative/positive), increased susceptibility to injury, dysfunctional tissue.

**Aging process:** Sarcopenia, bone density decreases, vertebral disks degenerate, loss of cartilage, decrease in elasticity of tendons and ligaments, decrease in amount and quality of collagen.

**Effect on musculo-skeletal systems:** Loss of muscle mass, loss of strength, osteoporosis, osteophytes, loss of height, postural changes, arthritis, reduced mobility and function, involuntary movement (fasciculations).



### Learning outcome 3: Understand the importance of knowledge of anatomy and physiology for complementary therapies

#### Importance of anatomy and physiology knowledge:

Application, selection and justification of treatment, ability to link knowledge to practice, information gathering, interpretation of findings, preparation and delivery of treatment plan.

**Relevant anatomy:** Anatomical movement and directional terminology, body planes and axes, range norms, major joints (articulations, internal structure, capsule, ligaments, surface anatomy, muscles involved), integumentary, skeletal, respiratory, urinary, digestive endocrine and reproductive systems, nerves, blood, lymph, cardio-vascular system.

**Relevant physiological:** Physiological changes that take effect when pressure and movement is placed on the tissues

including muscle tone, stimulation of muscle spindles and Golgi tendon organs; stimulation and action of receptors (temperature, touch, pressure, pain, proprioception), physical movement of blood and lymph, cardiac output, oxygen consumption, oedema, cellular effects (increased intercellular space, dilation of cells, tissue viscosity, exchange of nutrients and waste, capillarisation, effects on the endocrine system (for example:- dopamine, serotonin, norepinephrine/epinephrine, noradrenalin cortisol), effects on the respiratory, digestive, and urinary system, nervous system: central nervous system (brain and spinal cord), peripheral nervous system, autonomic nervous system, somatic nervous system, enteric nervous system.

### Learning outcome 4: Understand the physiological and psychological effects of complementary therapies

**Physiological effects:** On the musculoskeletal system, urinary system, respiratory system, integumentary system, reproductive system, endocrine system, circulatory system, lymphatic system, nervous system and digestive system, evaluate using case studies (massage, aromatherapy, reflexology), literature, empirical research papers, evidence-based documentation.

**Psychological effects:** Uplifting, relaxation, emotional (happy or sad), increased energy, more balanced, improved sleep patterns, reduced stress and anxiety; evaluate using case studies, literature, empirical research papers, evidence-based documentation.