

## Qualification Unit

This unit forms part of a regulated qualification.

**Unit Title:** Equine Thermal, Magnetic and Electro Therapies

**Unit Reference Number:** K/651/7463

**Level:** Five (5)

**Credit Value:** 20

**Minimum Guided Learning Hours:** 70

The primary aim of this unit is:

- To introduce the principles of electrotherapy, magnetic therapy, laser and therapeutic ultrasound
- To provide a foundation for the understanding of the effects of cryotherapy and thermal therapy
- To provide a clinical reasoning framework for establishing appropriate treatment parameters in thermal, magnetic, laser, ultrasound, and electrotherapies

Learning Outcome (The Learner will):	Assessment Criterion (The Learner can):
1. Understand the physics underpinning electrotherapy, laser, magnetic therapy and therapeutic ultrasound, and the effects of these modalities	1.1 Explain the working of different electrotherapy and associated modalities
	1.2 Interpret the effects of these modalities on the musculoskeletal and other body systems
	1.3 Analyse the indications and contra-indications of these modalities
2. Understand the effects of thermal therapies	2.1 Explain the effects of cryotherapy and thermal therapy
	2.2 Analyse the indications and contraindications of cryotherapy and thermal therapy
	2.3 Examine different ways in which thermal and cryotherapy can be applied

3. Be able to design and apply an appropriate modality-based treatment plan for a range of common musculoskeletal conditions	3.1	Demonstrate clinical reasoning when selecting a suitable modality for the treatment of a range of common musculoskeletal conditions
	3.2	Evaluate modality parameters and show proficiency in adapting a treatment protocol depending on therapeutic need
	3.3	Apply an appropriate modality-based treatment plan for a common musculoskeletal condition
	3.4	Work safely and proficiently in the application of a range of modalities
	3.5	Record treatments accurately

Indicative and Mandatory Content	
<b>LO1</b>	<p><b>AC 1.1</b> Could include the physics behind the ultrasound waveform, laser light, electrical energy and magnetic field, and their associated parameters (e.g. frequency, pulse).</p> <p><b>AC 1.2</b> Could include the effect of modalities on connective and nervous tissue at micro-and macroscopic level.</p> <p><b>AC 1.3</b> Could include how these effects at cellular and system level can provide therapeutic benefits or harmful effects.</p>
<b>LO2</b>	<p><b>AC 2.1, AC 2.2</b> Could include the effects of cold and therapy on the body and how these effects can be therapeutic or potentially harmful.</p> <p><b>AC 2.3</b> Could include the different methods that cold and heat therapy can be applied (e.g. cold hosing, tubbing, aqua boots; hot packs, infrared).</p>
<b>LO3</b>	<p><b>AC 3.1, AC 3.4</b> Could include ability to determine appropriate modalities to treat a range of common musculoskeletal conditions. Sound clinical reasoning in relation to modalities used. Musculoskeletal conditions to include those commonly reported in domesticated horses and/or those of clinical importance. Efficacy of treatment using thermal, magnetic and electro therapies.</p> <p><b>AC 3.2</b> Could include how to appreciate the state of inflammation within the target tissue (acute, subacute, chronic) and how this influences modality settings and treatment duration.</p> <p><b>AC 3.3, AC 3.4</b> Could include awareness of a potential pain response from the horse with some modalities (e.g. muscle stimulation), which may pose a risk to the handler and therapist, or hazards associated with some modalities on body systems/conditions (laser light and eyes; strong magnetic fields and pregnancy).</p> <p><b>AC 3.5</b> Could include adequate notes are kept so that a treatment record is available.</p> <p><b>MC1</b> The learner <b>must</b> include appraised scientific literature in electrotherapy</p>

and associated modalities.

The learner **must** demonstrate they are aware of the converging and diverging (or lacking) scientific evidence in the use of modalities and use this information to make balanced judgements on the efficacy of modalities in practice.