



Australian Government

MSTMF4008 Produce negative and positive casts for lasts and corrective orthoses

Release: 1

MSTMF4008 Produce negative and positive casts for lasts and corrective orthoses

Modification History

Release 1. Supersedes and is equivalent to LMTMF6004A Produce negative and positive casts for lasts and/or corrective orthoses.

Application

This unit of competency describes the skills and knowledge required to produce negative casts and produce and modify positive casts and lasts. Casts are restricted to casts of lower limb below the knee.

Work is generally conducted in a small business situation. The unit may apply to a sole practitioner, or someone working directly with medical grade footwear practitioners.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

N/A

Unit Sector

Medical grade footwear

Elements and Performance Criteria

Elements	Performance Criteria	
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.	
1. Clarify assessments and prescriptions	1.1	Confirm requirements with client and confirm necessary information has been provided
	1.2	Consult other parties to clarify additional information for cast and last development
2. Prepare for casting	2.1	Identify and mark biomechanical and functional requirements of cast
	2.2	Take measurements and drawings as required
	2.3	Select casting techniques appropriate to established

Elements	Performance Criteria	
		requirements
	2.4	Choose appropriate materials to fabricate cast
3. Produce below knee negative cast	3.1	Make a negative cast allowing for biomechanical requirements, volume expansion, and functional and positioning requirements
	3.2	Check quality and requirements of cast, and modify as required
	3.3	Determine and document job specifications for constructing positive cast
4. Produce positive cast and last	4.1	Produce positive cast from last to meet requirements for individual shape, alignment and specific designs, and allowing for biomechanical requirements, volume expansion, and functional and positioning requirements
	4.2	Fabricate and modify cast to meet specific footwear and orthoses design specifications
	4.3	Check shape of cast and last against design specifications
5. Adjust positive cast	5.1	Check shape of positive cast against client measurements, technical drawings and design specifications, allowing for biomechanical requirements, volume expansion, and functional and positioning requirements
	5.2	Add, cut or grind material according to specifications to adjust positive cast and last
6. Perform record keeping procedures	6.1	Record detail of casting to client's file
	6.2	Complete administrative tasks in line with workplace requirements

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria of this unit of competency.

- Numeracy skills to measure general foot shape and translate those measurements into lasts and casts that allow for individual functional tolerances
- Problem solving skills to address issues that arise in the design and production of casts

Other foundation skills essential to performance are explicit in the performance criteria of this unit.

Unit Mapping Information

Release 1. Supersedes and is equivalent to LMTMF6004A Produce negative and positive casts for lasts and/or corrective orthoses.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a203ec5c-de7d-406b-b3e1-8f1a9b76e92e>

Assessment Requirements for MSTMF4008 Produce negative and positive casts for lasts and corrective orthoses

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Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- produced one negative cast for a corrective orthosis, and one positive cast from a last for a corrective orthosis to suit client needs.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- elements and principles of orthoses and medical grade footwear design and how they are used to meet specified requirements
- applied anthropometrics of the foot, including the variables in and effects of physical force systems on the body, and other physical characteristics of commercial orthoses and footwear
- fabrication tools and techniques used to manufacture cast devices, including:
 - hand and machine methods
 - computer-aided processes
 - mechanical duplicators
 - pour techniques
 - combinations of the above processes
- materials used to manufacture casts, including:
 - plaster
 - wood
 - thermoset resin
 - expandable foams
 - casting polyurethane
- diagnostic and definitive orthoses constructions
- modification processes to adjust and refine orthoses
- safe work practices associated with producing casts and lasts
- general housekeeping policies and procedures, including cleaning agents and equipment used with orthoses.

Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - a workspace used to produce casts for lasts and orthoses using hand and machine-based techniques
 - safety equipment and standard operating procedures
- modelling of industry operating conditions, including access to clients.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

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