



Australian Government

MSTMF4011 Produce corrective orthoses

Release: 1

MSTMF4011 Produce corrective orthoses

Modification History

Release 1. Supersedes and is equivalent to LMTMF6007A Produce corrective orthoses.

Application

This unit of competency describes the skills and knowledge required to produce corrective orthoses. Corrective orthoses are made to assist with problems that require corrective posting or support of the foot or ankle, for example, a drop foot splint, inner shoe to stabilise foot or ankle complex and exclude movement, or to correct excessive rear foot pronation.

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 or with a health care team.

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

Pre-requisite Unit

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.	Determine initial job requirements	1.1	Select accommodative orthoses materials that reflect requirements of client condition and requirements for durability and performance
		1.2	Consult other parties to clarify or provide additional information about corrective orthoses
2.	Produce technical drawing of corrective orthoses	2.1	Produce initial three-dimensional (3D) design of cast
		2.2	Specify materials to be used in corrective orthoses construction
		2.3	Specify anatomical matching, key references and performance requirements of corrective orthoses

Elements		Performance Criteria	
		2.4	Specify dimensions and tolerances using appropriate drawing symbols
3.	Produce and post basic form	3.1	Review cast for accuracy, material selection, 3D design and consistency with technical drawing and prescription if applicable
		3.2	Make changes and refinements as necessary, including balancing aesthetic needs with footwear and condition requirements
		3.3	Produce basic form to fitting accuracy of $\pm 1\text{mm}$
		3.4	Correct and post basic form to corrective orthoses standard
4.	Conduct trial fitting of corrective orthoses	4.1	Produce corrective orthoses for trial fitting
		4.2	Modify existing shoes for trial of corrective orthoses
		4.3	Undertake a diagnostic fitting and interpret results for possible changes to corrective orthoses design and materials
5.	Manufacture corrective orthoses	5.1	Construct corrective orthoses to specification
		5.2	Make allowance for variation between trial orthoses and final corrective orthoses
		5.3	Check dimension and shape of corrective orthoses against specifications
		5.4	Check existing shoes against corrective orthoses and modify where required to meet requirement
		5.5	Finish off corrective orthoses to established quality standards
6.	Deliver and fit corrective orthoses	6.1	Check fitting and make adjustments as required to meet client needs
		6.2	Inform client of function, management and maintenance procedures for corrective orthoses and explain follow-up
		6.3	Complete record keeping procedures and administrative tasks
7.	Follow up client	7.1	Check function and state of corrective orthoses during follow-up
		7.2	Assess client condition and further medical grade footwear treatment or other health professional treatment, and update

Elements		Performance Criteria	
			client file

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.

- Oral communication skills to interact effectively with clients, suppliers and health professionals
- Numeracy skills to translate foot measurements and general foot shape into casts that include variable tolerances to suit individual needs
- Planning and organising skills to ensure orthoses are produced on time and within budget

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 LMTMF6007A Produce 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 MSTMF4011 Produce 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 two corrective orthoses for different clients with different needs.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- elements and principles of medical grade orthoses and footwear design and how orthoses 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
- effects of different types of corrective orthoses on the foot, ankle, leg and pelvic and lower back functions
- footwear and component construction methods and standards used to produce and modify corrective orthoses to meet specifications, including:
 - diagnostic and definitive constructions
 - hand and machine-based techniques
 - product and testing quality standards
- corrective orthoses inclusions:
 - removable inserts
 - incorporated ankle-foot orthoses (AFO)
 - shoes
 - post-operative
 - therapy footwear
- corrective orthoses materials typically used to produce corrective orthoses:
 - rubber
 - ethyl vinyl acetate (EVA) and polyurethane foams
 - PVC resins
 - plastics
 - vacuum moulding and laminating carbon glass
 - Kevlar fibre
- requirements and consequences of corrective orthoses factors, including:

- biomechanical requirements
- volume expansion
- functional and positioning
- approaches to problems that require corrective posting or support of foot and ankle:
 - drop foot splint
 - arthrodesis inner shoe to stabilise foot or ankle complex and exclude movement
 - solutions to correct excessive rear foot pronation
- procedures to translate information into working patterns
- cast check requirements
- administrative functions related to the construction of corrective orthoses
- legal, ethical and work health and safety (WHS) requirements associated with producing footwear and 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 and adjust 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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