



Australian Government

Department of Education, Employment and Workplace Relations

HLTDT519B Construct simple complete removable acrylic dentures and appliances

Release: 1

HLTDT519B Construct simple complete removable acrylic dentures and appliances

Modification History

Not Applicable

Unit Descriptor

Descriptor

This unit of competency describes the skills and knowledge required to construct a trial prosthesis suitable for insertion in the mouth; convert it to clinically acceptable materials and finish
All procedures are carried out in accordance with occupational health and safety policies and procedures, current infection control guidelines, Australian and New Zealand Standards, State/Territory legislative requirements and organisation policy

Application of the Unit

Application

This unit applies to work in dental technology

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Pre-requisite units

This unit must be assessed after successful achievement of pre-requisites:

- HLTIN301C Comply with infection control policies and procedures
- HLTOHS300B Contribute to OHS processes

Employability Skills Information

Employability Skills

This unit contains Employability Skills

Elements and Performance Criteria Pre-Content

Elements define the essential outcomes of a unit of competency.

The Performance Criteria specify the level of performance required to demonstrate achievement of the Element. Terms in *italics* are elaborated in the Range Statement.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

1. Articulate by means of face-bow

- 1.1 Receive face-bow with completed bite registration
- 1.2 Read and interpret prescription card
- 1.3 Articulate on an industry specific articulator in accordance with operator requirements

2. Prepare case for setting of teeth

- 2.1 Select *artificial teeth* in accordance with prescription
- 2.2 Modify bases and rims as required for positioning teeth

ELEMENT	PERFORMANCE CRITERIA
3. Arrange artificial teeth	3.1 Follow prescription to <i>position and attach the prescribed artificial teeth</i> 3.2 Shape and contour the supportive wax and contour to gingival outline
4. Wax up denture for try-in	4.1 Contour facial and lingual aspects 4.2 Locate and relieve muscle attachments 4.3 Smooth and round peripheral extensions 4.4 Confirm distal extensions 4.5 Decontaminate the trial prosthesis according to infection control guidelines 4.6 Dry the trial prosthesis and place in a sealed container for dispatch
5. Check and modify the returned trial prosthesis	5.1 Decontaminate the returned prosthesis and identify any modifications that are required 5.2 Check the returned trial prosthesis for loosening or movement of teeth and make necessary adjustments 5.3 Fit the returned trial prosthesis to the model if it needs to be modified, articulate and make necessary modifications
6. Wax case for finish consistent with prescription	6.1 Evaluate the prescription, the casts and the denture design and decide whether to use a duplicate cast for processing the final prosthesis 6.2 Apply wax as required by work order 6.3 Contour facial and lingual aspects

ELEMENT**PERFORMANCE CRITERIA**

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| 7. Select and prepare materials and processing technique | 7.1 Identify the appropriate polymer system for case
7.2 Identify the appropriate investment technique
7.3 Identify the appropriate processing cycle
7.4 <i>Select polymeric material</i> to construct the prosthesis
7.5 Prepare system components in accordance with manufacturer's instructions
7.6 Allow materials to reach application stage |
| 8. Process denture or appliance | 8.1 Apply appropriate investment techniques
8.2 Apply material to mould
8.3 Process the polymeric material for the correct length of time at the correct temperature
8.4 Devest model and remove the processed prosthesis without causing damage to it
8.5 Trim excess material and remount on articulator |

ELEMENT**PERFORMANCE CRITERIA**

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|--------------------------------|--|
| 9. Finish denture or appliance | 9.1 Select methods, materials and equipment for trimming, finishing and polishing the prosthesis appropriate to the appliance and the materials used in its construction |
| | 9.2 Reposition models on the articulator where possible |
| | 9.3 Assess the articulated prosthesis and <i>confirm that articulation</i> is appropriate to the prescription |
| | 9.4 Make any necessary adjustments to maintain original vertical dimension |
| | 9.5 Remove any processing irregularities and sharp edges |
| | 9.6 Polish the non-fitting surfaces of the prosthesis to create smooth, polished surfaces |
| | 9.7 <i>Evaluate the finished prosthesis</i> |
| | 9.8 Decontaminate the dentures according to infection control guidelines |
| | 9.9 Place in a sealed container for dispatch |

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level required for this unit.

Essential knowledge:

The candidate must be able to demonstrate essential knowledge required to effectively do the task outlined in elements and performance criteria of this unit, manage the task and manage contingencies in the context of the identified work role

This includes knowledge of:

- Applied oral anatomy
 - dentition - arrangement of the teeth, naming and coding of teeth
 - structures of the oral cavity - hard and soft palate, lateral and posterior borders of the oral cavity, tongue and floor of the mouth
 - teeth - form and function
- Articulation procedures
- Fundamental knowledge of the properties of dental material including:
 - atomic structure

REQUIRED SKILLS AND KNOWLEDGE

- chemical bonding and reactions
- classification of materials
- classification of matter
- properties of materials
- Fundamental knowledge of dental polymers including:
 - acrylic and modified acrylic prosthetic teeth
 - acrylic plastics as soft liners
 - acrylic plastics for denture bases including composition and properties
 - acrylic-metal combinations
 - acrylics for construction of custom trays
 - modified acrylic denture base plastics including manipulation and processing
 - the polymerisation process including cross-linked polymers, copolymers, modified polymers and vinyl plastics
- Infection control guidelines for the decontamination of clinical material
- Mechanical devices: articulators, face-bows
- Recording techniques and devices
- Relevant material science for carrying out procedures

Essential skills:

It is critical that the candidate demonstrate the ability to

- Consistently arrange artificial teeth in accordance with the requirements of prescription
- Consistently wax, process and finish acrylic prostheses to a standard suitable for insertion in the mouth
- Consistently comply with current infection control guidelines, Australian Standards and legislative requirements as they relate to the dental technician's specific job role
- Consistently comply with occupational health and safety policies and procedures as they relate to the dental technician's specific job role

In addition, the candidate must be able to effectively do the task outlined in elements and performance criteria of this unit, manage the task and manage contingencies in the context of the identified work role

This includes the ability to:

- Consistently apply standard precautions during the decontamination of clinical materials
- Consistently follow occupational health and safety policies and procedures
- Consistently follow safe work practices and apply standard precautions during the construction of complete removable acrylic dentures and appliances
- Consistently follow sequenced written instructions and manufacturer's specifications for the preparation of materials
- Consistently read and interpret the prescription correctly

REQUIRED SKILLS AND KNOWLEDGE

- Use appropriate practices to ensure efficient use of power and other resources
- Use literacy skills to read and follow directions, policies and procedures including:
 - laboratory policies and procedures
 - material safety data sheets

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate this competency unit:

- The individual being assessed must provide evidence of specified essential knowledge as well as skills
- Assessment should replicate workplace conditions as far as possible
- Consistency of performance should be demonstrated over the required range of workplace situations

Context of and specific resources for assessment:

- Simulations may be used to represent workplace conditions as closely as possible
- Where, for reasons of safety, access to equipment and resources and space, assessment takes place away from the workplace, simulations should be used to represent workplace conditions as closely as possible

EVIDENCE GUIDE

Method of assessment

- Evidence of essential knowledge and understanding may be provided by:
 - traditional or online (computer-based) assessment
 - written assignments/projects
- Case study and scenario as a basis for discussion of issues and strategies to contribute to best practice
- Questioning
- Staff and/or client feedback
- Supporting statement of supervisor
- Authenticated evidence of relevant work experience and/or formal/informal learning
- Role play/simulation

Access and equity considerations:

- All workers in the health industry should be aware of access and equity issues in relation to their own area of work
- All workers should develop their ability to work in a culturally diverse environment
- In recognition of particular health issues facing Aboriginal and Torres Strait Islander communities, workers should be aware of cultural, historical and current issues impacting on health of Aboriginal and Torres Strait Islander people
- Assessors and trainers must take into account relevant access and equity issues, in particular relating to factors impacting on health of Aboriginal and/or Torres Strait Islander clients and communities

Range Statement

RANGE STATEMENT

The Range Statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

Artificial teeth may include:

- Acrylic
- Porcelain

Positioning and attaching the prescribed artificial teeth may include:

- Working in a manner that produces:
 - occlusion and articulation that is appropriate to the client's recorded jaw relationship
 - the desired aesthetic appearance
 - a prosthesis that maximises stability, support and retention
 - maximum masticatory efficiency

Factors to be considered when selecting polymeric material may include:

- The preference of the clinical operator
- The other materials in the prosthesis
- The aesthetic requirements of the finished prosthesis

Confirmation of articulation may include:

- Restoring centric occlusion
- Restoring balanced occlusion
- Restoring function

RANGE STATEMENT

Evaluation of the finished prosthesis may include:

- The quality of the finished prosthesis and freedom from defects including:
 - porosities
 - impurities through the acrylic
 - inadequate adaptation of acrylic to teeth
 - movement of teeth
- The functional effectiveness of the design
- Fit to the model
- Compliance with the original prescription

Unit Sector(s)

Not Applicable