

Enquiry 1: Hand Orthosis

Learning Objectives: Relevant to Enquiry 1

In the various components of the first assessment task you will demonstrate the ability to:

- Fabricate a series of common custom-made upper limb orthoses and understand variations to learned fabrication procedure
 - Fit and critically analyse a common custom-made upper limb orthosis
 - As part of this enquiry you will complete several different orthoses
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Overview

In this enquiry you will fabricate a number of hand orthoses during your practical class in week 3. You are to select the 2 best orthoses you have made (either 1 HO and 1 WHO) and complete a self-critique of these, using the attached marking matrix.

You need to write a 150 word, referenced, justification regarding appropriate pathology and use of each specific orthoses.

Assessment and Submission

Weighting **20%** of total grade

During class students will be able to make a variety of orthoses with Low Temperature Thermoplastic (LTT).

From these devices the students will select two(2) to submit. Each device will be submitted with a 150 word outline (with references in APA format) that justifies the selection of specific orthosis for submission including one clinical application for each device related to management of a hand pathology.

Submission: Each device must be submitted with the assessment matrix and student number included on all work submitted for the enquiry.

Assessment: Students will complete a self-assessment of devices. Justification for the use of the device will be provided.
The following criteria will be used in assessment of the assignment.
Marks are awarded on the following basis:

40% Clinical Justification

- Appropriateness of selected device in relation to the suggested pathology
- Clinical justification of use of that device in relation to the suggested pathology
- Explanation of biomechanical function of chosen device /s related to suggested pathology /ies
- Relevance of information included and exclusion of irrelevant information
- Conciseness, accuracy and correct use of terminology

Information appropriately referenced.

30% Fit of Orthosis (self-critique)

The degree to which the orthosis fits the client, with emphasis on:

- Volume, conformity to limb shape
- Trim line location, suspension (if needed)
- Client comfort, biomechanical efficiency

20% Technical Proficiency (self-critique)

Finish of the orthosis with particular respect to:

- Safety of the client, smoothness of edges
- Structural soundness, neatness of the finished orthosis

10% Laboratory Management (self-critique)

Appropriate use of laboratory facilities and personal safety equipment, including cleaning up.

All students are expected to adopt safe and clean working habits. Unclean practices will not be tolerated and marks will be deducted from projects for untidy workshop behaviour. Deductions may be made from the whole class if common areas are left untidy.

Learning pathway

Week 1: Introduction to the enquiry

- Reflective practice of utilising a upper limb orthosis
- understanding of the issues of fit and function of a prosthesis

Week 2: Orthotic management of the upper limb

Week 3: Full day session with clinical specialist

Fabricate hand orthoses

Week 4: Self-critique and Justification for the 2 best orthoses to be submitted by the 3rd of April 4pm at the Health Sciences clinic.

Recommended reading

Lecture notes and review articles on the LMS.

Research regarding pathologies and orthosis use will be required for submission.