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Orthotic Management
of
Neuro-Muscular Pathologies
Dynamic Ankle Foot Orthotics
DAFO



Content

CONTENT	2
1. OVERVIEW	3
2. ONLINE THEORY PERIOD	3
3. ON-SITE TRAINING	4
4. ONLINE FOLLOW-UP PERIOD	5
5. REQUIREMENTS	5
6. AWARD OF CERTIFICATION	6
CONTACT	6

Human Study e.V.

1. Overview

This specialized course on Orthotic Management of Neuro-Muscular Pathologies which applies techniques of Dynamic Ankle Foot Orthotics – DAFO (based on *Nancy Hilton* approach) is addressed to prosthetics and orthotics professionals interested in specific techniques to address Neuro-Muscular pathologies. The main focus of this course is the treatment of physical disorders caused by Cerebral Palsy with a special type of Dynamic Ankle Foot Orthotics - DAFO

The course consists of 3 parts.

1. Five weeks of online theoretical content
2. Five days on-site training
3. Three months online follow up, including Practical Case presentations

For the online training, the participants will be enrolled in the Human Study virtual classroom/internet platform to receive the specific theoretical content.

The subjects are:

- **Anatomy and Physiology:** including bones, muscles and joints (below knee)
- **Pathology and Prescription:** including understanding different foot disease and how to treat, flat foot, club foot, hidden pes equinus, calcaneus valgus
- **Biomechanics:** including movement of the foot, subltar and ankle joint during the gait; Showing movie Patient with and without orthosis
- **Professional practice:** Practical techniques for assessment, casting, rectification and prosthetic assembly, fitting, and troubleshooting

The on-site training lasts for five days. The participants will produce one custom made dynamic ankle foot orthosis for real patients, according to the trainer's instructions.

In the online follow-up period, each student presents up to three, but at least one clinical case presentation based on the learned technique. This presentation is discussed online with the trainer and fellow students in the class.

2. Online theory period

Each student acquires credentials to be enrolled to the Human Study platform to participate in the online activities. This period lasts for five weeks and covers weekly theoretical content, video material and weekly live meetings via meeting platform (via Webinar App) for live lectures and discussions. Each lecture is recorded so students are able to access them again throughout the course. Each student has access to the platform tools such as forums, direct messaging and the glossary.

The online period allows each participant to organize their own studying time according to the personal and professional needs.

The online period is organized as follows:

1st week:

- Kick Off conference (via Webinar App)
- IT training
- L1 Anatomy
- L2 Anatomy
- Quiz
- Online live session with lecturer (via Webinar App)

2nd Week

- L3 Biomechanics
- L4 Muscle work
- Quiz
- Online live session with lecturer (via Webinar App)

3rd Week

- L5 Pathology
- L6 Assessment
- Quiz
- Online live session with lecturer (via Webinar App)

4th Week

- L7 Gait biomechanics I
- L8 Gait biomechanics II
- Quiz
- Online live session with lecturer (via Webinar App)

5th week

- L9 Cerebral Palsy & Spasticity
- L10 Treatment goals
- Quiz
- Online live session with lecturer (via Webinar App)

3. On-site training

DAFO workshop:

The goal of the practical workshop for each participant is to manufacture one custom made dynamic ankle-foot orthosis – DAFO, for real patients, according to the trainer’s instructions. The trainer performs each working step and the participants reproduce it. Participants perform the entire fabrication process, from patient anamnesis up to the test fitting and gait analysis with the final Orthosis.

The workshop is organized as follows:

- Day 1 - includes theory revision, patient anamnesis leading to design and prescription of DAFO Reflection of the examination results and an orthotic treatment planning of the individual patients;
- Day 2 - participants take plaster casts. Preparation of plaster models for the DAFO's; different correction concepts for foot deformities and modelling techniques
- Day 3 – Production process of the DAFO in a Step by Step approach
- Day 4 – Production process of the DAFO in a Step by Step approach
- Day 5 - DAFO 's are tested on the patient and several gait observations with changed parameters and gait monitoring; closing of the workshop

4. Online follow-up period

This period lasts for 3 month and participants can use this time to contact the trainer to clarify any questions or doubts. In addition, each student is invited to prepare and to present up to three, but at least one, clinical case presentation according to the new learned techniques.

These case presentations are delivered in Power Point format where the participant is required to present his/her treatment. This takes place in a live session (via Webinar App), where discussions are held with the trainer and the rest of participants. The aim is to analyze the procedures and results, acquiring a valuable feedback from the group with the trainer as moderator.

The presentation of at least one Case Presentation is mandatory in order to receive the Human Study course certificate.

5. Requirements

This course is aimed for P&O professionals on-the-job who demand to improve their skills by learning the Lower Limb Orthotics.

Physiotherapists can also join this course and follow the full online packages, but attend the clinical workshop only on day 1 (patient assessment, prescription and design of treatment) and day 5 (fitting, testing and outcome measures)

Training candidate requirements:

- At least 1-year of practical experience in the field of Prosthetics & Orthotics
- Curriculum Vitae with photo
- Computer with internet access
- Good English: professional working proficiency

6. Award of Certification

Each participant is required to complete a theoretical examination (online based) and to present at least one case presentation in the frame of the course. Upon successful theoretical examination and completed case presentation, the participant will be awarded a **Certificate of Achievement** by Human Study e.V. Those participants who do not pass theoretical examination and present at least one case presentation, but only attend the workshop, will get Certificate of Attendance.

CONTACT

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