

**The Education, Training and Competency Assessment  
Standards for Orthotic, Prosthetic and Pedorthic  
Patient Care Providers**

**The American Board for Certification in Orthotics,  
Prosthetics & Pedorthics, Inc.**

## **Preface**

The following information is presented to the Centers for Medicare and Medicaid Services as it considers regulations pursuant to Section 427 of the Benefits Improvement and Protection Act of 2000.

This information reflects the current eligibility requirements to participate in the credentialing examination process of the American Board for Certification in Orthotics, Prosthetics & Pedorthics (ABC) which, following successful completion, results in a credential managed by the ABC. These educational, training and competency assessment elements are necessary to ensure that individuals providing orthotic, prosthetic or pedorthic services are appropriately prepared within the scope of their specific credential.

The educational requirements described in this document meet the essentials and guidelines adopted by the Commission on Accreditation of Allied Health Educational Programs (CAAHEP) and/or the National Commission on Orthotic and Prosthetic Education (NCOPE) and/or the Commission on Pedorthic Education (CAPE). In addition, the orthotist and prosthetist clinical training requirements meet the standards adopted by NCOPE.

ABC's examination process has been psychometrically validated by Professional Examination Services and has been approved by the National Commission of Certifying Agencies.

To remain in good standing, credentialed individuals must remain in compliance with Continuing Educational requirements and must adhere to a Code of Professional Conduct, which is subject to oversight by the Professional Discipline committee.

Questions about this document may be referred to:

**Catherine A. Carter, Executive Director**  
**American Board for Certification in Orthotics, Prosthetics & Pedorthics, Inc.**  
**330 John Carlyle Street, Suite 210**  
**Alexandria, Virginia 22314**  
**(703) 836-7114, ext. 222**  
[ccarter@abcop.org](mailto:ccarter@abcop.org)

**October 17, 2008**

# **Table of Contents**

## **Orthotist**

- Scope of Practice
- Education
  - Core Curriculum
  - Professional Curriculum
- Clinical Training
- Assessment of Competency

## **Prosthetist**

- Scope of Practice
- Education
  - Core Curriculum
  - Professional Curriculum
- Clinical Training
- Assessment of Competency

## **Pedorthist**

- Scope of Practice
- Education
  - Level 1
  - Level 2
  - Level 3
- Work Experience
- Assessment of Competency

## **Orthotic Fitter**

- Scope of Practice
- Education
- Work Experience
- Assessment of Competency

## **Post-Mastectomy Fitter**

- Scope of Practice
- Education
- Work Experience
- Assessment of Competency

## **Therapeutic Shoe Fitter**

- Scope of Practice
- Education
- Work Experience
- Assessment of Competency

Appendix 1

Orthotist/Prosthetist Practice Management Domains

Appendix 2

Specific Orthotic Content for Orthotist Educational Programs

Appendix 3

Specific Prosthetic Content for Prosthetist Educational Programs

Appendix 4

Quarterly Evaluation of Orthotic/Prosthetic Resident

Appendix 5

Resident's Technical Knowledge and Skills Assessment Form

# **Orthotist**

## **Scope of Practice:**

An orthotist is a health care professional who is specifically educated and trained to manage comprehensive orthotic patient care. This includes assessment of patients with impairment of human movement or musculoskeletal abnormalities that would impede their ability to participate in their social environment or other activities in order to determine a functional intervention; formulation of a treatment plan based upon a comprehensive assessment to design an intervention to alleviate limitations and enhance function; implementation of the orthotic treatment plan; utilization of a follow-up treatment plan that ensures successful orthotic outcomes, patient health and quality of life; compliance with practice management plans to develop and document policies and procedures to ensure patient protection; and promotion of competency and enhancement of orthotic professional practice to contribute to the profession's body of knowledge.

## **Education:**

Minimum of a baccalaureate degree from a CAAHEP accredited orthotic program, or

A baccalaureate degree in another discipline and a post-baccalaureate certificate from a CAAHEP accredited orthotic program.

## **Core Curriculum for Orthotists**

Prerequisites:

- Biology with lab
- Psychology
- Physics with lab
- Chemistry with lab
- Human anatomy and physiology with lab
- Statistics

## **Professional Curriculum**

The professional curriculum portion is the academic “core” of the curriculum and is designed to provide the student with the knowledge, skill and behaviors required for entry into the clinical practice of orthotics. The professional curriculum occurs after the matriculation of the student into the orthotic education program.

## **Basic Sciences in an orthotic program include:**

- Human anatomy and physiology
- Biomechanics/pathomechanics
- Gait Analysis (normal and pathological gait)
- Kinesiology
- Clinical pathology
- Material science
- Research methods

**Specific Orthotic Content Areas in an orthotic program include:**

- Lower Limb Orthoses
- Upper Limb Orthoses
- Spinal Orthoses
- Cranial Orthoses
- Seating and Mobility Systems

**Detailed information about the orthotic curriculum is referenced in the attached Domains of Patient Management (Appendix 1) and specific Orthotic Content Areas (Appendix 2).**

**Clinical Training:**

The purpose of clinical training is to impart expertise and promote competency by requiring the resident to meet or exceed objectives in the following content areas:

- Clinical Assessment
- Patient Management
- Professional Responsibility
- Practice Management
- Technical Implementation

This clinical training must take place in an NCOPE accredited residency site. It also must occur in an ABC accredited facility primarily engaged in orthotic patient care. The resident's clinical training is accomplished under the supervision of a certified and/or licensed orthotist. The length of the clinical training program must be a minimum of 12 months.

The clinical training staff has defined responsibilities including the following:

- Participation in development of learning objectives
- Supervise the resident during patient care
- Evaluate resident
- Carry out the goals and objectives of the residency
- Act as an academic advisor to residents for projects and other endeavors

Clinical experiences shall be of sufficient variety and volume to afford the resident adequate exposure in orthotics in the following three primary areas:

- Pediatrics
- Adult
- Geriatrics

The resident's knowledge, skills and professional growth are assessed through quarterly evaluations (**Appendix 4**) and through a technical assessment (**Appendix 5**).

**Assessment of Competency:**

Once the clinical training is complete, the orthotist's competency is assessed through a series of examinations administered by ABC.

**Written Multiple Choice Examination:** an examination that assesses the candidate's knowledge of anatomy, physiology, biomechanics, disease process, pathologies, material science, and orthotic recommendations.

**Written Simulation Examination:** an examination that assesses the candidate's analytic decision making and clinical problem solving skills, prescription criteria, technical implementation and follow-up protocols.

**Clinical Patient Management Practical Examination:** Hands-on examination of knowledge and skills assessed through direct examiner and patient model interaction. The candidate must perform specific tasks while demonstrating and describing the orthotic recommendation, fitting criteria, patient instructions and follow up plans involved in the provision of care.

# **Prosthetist**

## **Scope of Practice:**

A prosthetist is a health care professional who is specifically educated and trained to manage comprehensive prosthetic patient care. This includes assessment of patients with impairment of human movement or musculoskeletal abnormalities that would impede their ability to participate in their social environment or other activities in order to determine a functional intervention; formulation of a treatment plan based upon a comprehensive assessment to design an intervention to alleviate limitations and enhance function; implementation of the prosthetic treatment plan; utilization of a follow-up treatment plan that ensures successful prosthetic outcomes, patient health and quality of life; compliance with practice management plans to develop and document policies and procedures to ensure patient protection; and promotion of competency and enhancement of prosthetic professional practice to contribute to the profession's body of knowledge.

## **Education:**

Minimum of a baccalaureate degree from a CAAHEP accredited prosthetic program, or

A baccalaureate degree in another discipline and a post-baccalaureate certificate from a CAAHEP accredited prosthetic program.

## **Core Curriculum for Prosthetists:**

Prerequisites:

- Biology with lab
- Psychology
- Physics with lab
- Chemistry with lab
- Human anatomy and physiology with lab
- Statistics

## **Professional Curriculum**

The professional curriculum portion is the academic “core” of the curriculum and is designed to provide the student with the knowledge, skill and behaviors required for entry into the clinical practice of prosthetics. The professional curriculum occurs after the matriculation of the student into the prosthetics education program.

## **Basic Sciences in a prosthetic program include:**

- Human anatomy and physiology
- Biomechanics/pathomechanics
- Gait Analysis (normal and pathological gait)
- Kinesiology
- Clinical pathology
- Material science
- Research methods

### **Specific Prosthetic Content Areas in a prosthetic program include:**

- Lower Limb Prosthetics
  - Partial Foot
  - Symes
  - Transtibial
  - Knee Disarticulation
  - Transfemoral
  - Hip Disarticulation/Hemipelvectomy
  
- Upper Limb Prosthetics
  - Transradial
  - Transhumeral
  - Myoelectrics

**Detailed information about the prosthetic curriculum is referenced in the attached Domains of Patient Management (Appendix 1) and specific Prosthetic Content Areas (Appendix 3).**

### **Clinical Training:**

The purpose of clinical training is to impart expertise and promote competency by requiring the resident to meet or exceed objectives in the following content areas:

- Clinical Assessment
- Patient Management
- Professional Responsibility
- Practice Management
- Technical Implementation

This clinical training must take place in an NCOPE accredited residency site. It also must occur in an ABC accredited facility primarily engaged in prosthetic patient care. The resident's clinical training is accomplished under the supervision of a certified and/or licensed prosthetist. The length of the clinical training program must be a minimum of 12 months.

The clinical training staff has defined responsibilities including the following:

- Participation in development of learning objectives
- Supervise the resident during patient care
- Evaluate resident
- Carry out the goals and objectives of the residency
- Act as an academic advisor to residents for projects and other endeavors

Clinical experiences shall be of sufficient variety and volume to afford the resident adequate exposure in prosthetics in the following three primary areas:

- Pediatrics
- Adult
- Geriatrics

The resident's knowledge, skills and professional growth are assessed through quarterly evaluations (**Appendix 4**) and through a technical assessment (**Appendix 5**).

**Assessment of Competency:**

Once the clinical training is complete, competency is assessed through a series of examinations administered by ABC.

**Written Multiple Choice Examination:** an examination that assesses the candidate's knowledge of anatomy, physiology, biomechanics, disease process, pathologies, material science, and prosthetic recommendations.

**Written Simulation Examination:** an examination that assesses the candidate's analytic decision making and clinical problem solving skills, prescription criteria, technical implementation and follow-up protocols.

**Clinical Patient Management Practical Examination:** Hands-on examination of knowledge and skills assessed through direct examiner and patient model interaction. The candidate must perform specific tasks while demonstrating and describing the prosthetic recommendation, fitting criteria, patient instructions and follow up plans involved in the provision of care.

## **Pedorthist:**

### **Scope of Practice:**

A pedorthist is a health care professional who is specifically educated and trained to manage comprehensive pedorthic patient care. This includes patient assessment, formulation of a treatment plan, implementation of the treatment plan, follow-up and practice management. A pedorthist fits, fabricates, adjusts, or modifies pedorthic devices which reflect his/her education.

### **Education:**

Education began prior to 1/1/2006 required that an applicant complete 120-hours of CAPE approved pedorthic pre-certification educational courses. Education requirements after 1/1/2006, consist of completion of Levels 1, 2 and 3 of a CAPE approved pre-certification pedorthic coursework as outlined below.

#### Level 1:

Shoe Fitting, Shoe Construction, Basic Anatomy, Biomechanics, Pathology and Pre-fabricated Foot Orthoses

#### Level 2:

Pedorthic Evaluation, Foot Orthoses and Shoe Modifications

#### Level 3:

Anatomy, Physiology, Pathomechanics, Systemic Diseases, Custom Molded Shoes, Subtalar-Control Foot Orthosis, Patient Management and Implementation Patient Management

### **Work Experience:**

A minimum of 1000 hours of supervised work experience during which the primary responsibility is the provision of pedorthic devices and related patient care services.

### **Assessment of Competency:**

The pedorthist must successfully complete a written multiple choice examination, administered by ABC, which addresses anatomy, biomechanics, disease processes, pedorthic prescription criteria, pedorthic device recommendation, technical implementation, patient instructions, and follow up plans.

## **Orthotic Fitter:**

### **Scope of Practice:**

An orthotic fitter is a health care professional who is specifically educated and trained in the provision of prefabricated orthoses. This includes patient assessment, formulation of a treatment plan, implementation of the treatment plan, follow-up and practice management. An ABC certified fitter-orthotics is competent to practice orthotics within a scope of practice that is specific to fitting prefabricated and off-the-shelf orthoses as described below:

- Trusses
- Pressure gradient garments
- Prefabricated spinal orthoses, except those used in the treatment of scoliosis, orthoses used in the treatment of unstable spinal conditions, and halo orthoses
- Prefabricated orthoses of upper and lower extremities, except those used in the initial and/or acute treatment of long bone fractures
- Prefabricated cervical orthoses except when used to treat an unstable cervical condition

### **Education:**

The educational program is approved by NCOPE. The duration of the program is a minimum of 30 hours of specific content related to prefabricated lower extremity, upper extremity and spinal orthoses. The program contains both didactic and hands-on fitting skills training.

The program contains the following content areas:

- Anatomy/Physiology
- Medical Terminology
- Biomechanics
- Spinal Pathologies
- Spinal Soft Goods
- Spinal Rigid Supports
- Cervical Orthoses
- Lower Extremity Prefabricated Orthoses
- Upper Extremity Prefabricated Orthoses
- Lymphedema/Venous Insufficiency
- Professional Ethics
- Practice Management/HIPPA

### **Work Experience:**

A minimum of 1,000 hours of work experience during which the primary responsibility is the provision of prefabricated orthoses and related patient care services.

### **Assessment of Competency:**

The fitter must successfully complete a written multiple choice examination, administered by ABC, which addresses disease processes, orthoses selection, fitting criteria, patient instructions and follow up plans.

## **Post-Mastectomy Fitter:**

### **Scope of Practice:**

A mastectomy fitter is a health care professional who is specifically educated and trained to manage the provision of breast prostheses and post-mastectomy services. This includes patient assessment, formulation of a treatment plan, implementation of the treatment plan, follow-up and practice management.

### **Education:**

The educational program is approved by NCOPE. The duration of the program is a minimum of 8 hours of specific content related to post-mastectomy patient care services and products. The program contains both didactic and hands-on fitting skills training.

The educational program contains the following content areas:

- Breast Prostheses
- Mastectomy Products and Services
- Professional Ethics
- Practice Management/HIPPA

### **Work Experience:**

A minimum of 500 hours of work experience during which the primary responsibility is the provision of breast prostheses and post-mastectomy patient care services.

### **Assessment of Competency:**

The fitter must successfully complete a written multiple choice examination, administered by ABC, which addresses patient assessment, fitting criteria of post-mastectomy prostheses and supplies, patient instructions and follow up plans.

## **Therapeutic Shoe Fitter:**

### **Scope of Practice:**

A therapeutic shoe fitter is a health care professional who is specifically educated and trained to provide non-custom therapeutic shoes and non-custom multi-density inserts. This includes patient assessment, formulation of a treatment plan, implementation of the treatment plan, follow-up and practice management.

### **Education:**

The educational program is approved by NCOPE. The duration of the program is a minimum of 16 hours of specific content related to the provision of non-custom therapeutic shoes and non-custom multi-density inserts. The program contains both didactic and fitting skills training.

The educational program contains the following content areas:

- Anatomy of the Foot
- Terminology
- Material Science
- Patient Evaluation and Techniques
- Common Foot Pathologies and Deformities
- Foot Measurement, Shoe Fitting and Selection Criteria
- Complications Associated with the Diabetic Foot
- Documentation
- Professional Ethics

### **Work Experience:**

A minimum of 250 hours of work experience during which the primary responsibility is the provision of non-custom therapeutic shoes and non-custom multi-density inserts.

### **Assessment of Competency:**

The fitter must successfully complete a written multiple choice examination administered by ABC, which addresses basic foot anatomy, diabetic complications, patient assessment, shoe fitting criteria, patient instructions and follow-up.