

Introduction to Pedorthics

American Board for Certification in Orthotics, Prosthetics and Pedorthics (ABC)

- An ABC Certified *Pedorthist* or C.Ped., is a health care professional 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.
- Pedorthic care includes patient evaluation, and the design, fabrication, fitting, modification, maintenance and repair of pedorthic devices for the prevention or amelioration of painful and/or disabling conditions that originate at the ankle or below.

American Board for Certification in Orthotics, Prosthetics and Pedorthics (ABC)

- “Pedorthic devices” means therapeutic shoes, shoe modifications made for therapeutic purposes, prefabricated below the knee orthoses, partial foot prostheses for transmetatarsal and distal amputations, and foot orthoses. It also includes subtalar-control foot orthoses, also referred to as a SCFO, designed to manage the function of the anatomy by primarily controlling the range of motion of the subtalar joint. Excluding footwear, the proximal height of a custom pedorthic device does not extend beyond the junction of the gastrocnemius and the Achilles tendon. Pedorthic devices do not include non-therapeutic inserts or footwear regardless of method of manufacture; unmodified, non-therapeutic over-the-counter shoes; or prefabricated foot care products. “Therapeutic” devices address a medical condition, diagnosed by a prescribing medical professional, while “non-therapeutic” devices do not address a medical condition.

Board for Certification/Accreditation (BOC)

- Pedorthics is the practice, pursuant to a written order/prescription when addressing a medical condition, of evaluating, treatment planning, patient managing, measuring, designing, fabricating, assembling, fitting, adjusting, or servicing, necessary to accomplish the application of a pedorthic device for the prevention or amelioration of painful and/or disabling conditions related to the lower extremities.
- A BOC Pedorthist (BOCPD) is a professional whose competence in fitting pedorthics is evaluated and verified by the Board of Certification/Accreditation.
- “Pedorthic Devices/Modalities” means therapeutic shoes, shoe modifications made for therapeutic purposes, partial foot prostheses, foot orthoses, and below-the-knee pedorthic modalities. Pedorthic devices do not include non-therapeutic accommodative inlays and non-therapeutic accommodative footwear, regardless of method of manufacture; unmodified, non-therapeutic over-the-counter shoes; or prefabricated unmodified and/or unmodifiable foot care and footwear products. For purposes of this document, “accommodative” means designed with a primary goal of conforming to the individual’s anatomy, and “therapeutic” devices are devices that address a medical condition, while non-therapeutic devices are devices that do not address a medical condition.

Pedorthic Footcare Association (PFA)

- *Pedorthics* is the management and treatment of conditions of the foot, ankle, and lower extremities requiring fitting, fabricating, and adjusting of pedorthic devices. Pedorthics uses footwear to help ease and treat these foot-related problems.
- A *pedorthist* is an individual who is trained in the management and treatment of conditions of the foot, ankle, and lower extremities requiring fitting, fabricating, and adjusting of pedorthic devices.

ABC Pedorthic Certification Process

- High school diploma, GED certificate, or college transcript or World Education Service (WES) Credential Evaluation (only applicable if you received your education in a foreign country)
- Completion of an ABC-approved pedorthic pre-certification education course
- Completion of 1,000 hours of supervised pedorthic patient care experience obtained either before or after completion of your pedorthic education program. Any experience with initial patient evaluations and the final fitting/deliveries related to a custom pedorthic device must be done under Direct Supervision.
- Completed Pedorthist Competency Attestation form verifying applicant's clinical experience, signed by the supervising certified/licensed orthotist, pedorthist, or pedorthic referral source.
- Eligible candidate must make an attempt at the exam within one calendar year of their application approval date.

Pedorthic Modalities

Pedorthic Modalities

Pedorthic Devices

- Therapeutic Shoes
- Custom Shoes
- Shoe Modifications
- Foot Orthoses
 - Custom
 - Prefabricated
- Partial Foot Prostheses
- Prefab AFOs*
- SCFOs*

* That do not extend proximally past the junction of the gastrocnemius and the Achilles tendon

Additional Items

- Retail Shoes**
- Non-therapeutic Prefab Foot Orthoses**
 - ** That are not being used to knowingly address a medical condition
- Compression socks
- Socks
- Other footcare products

Therapeutic Shoes

- Additional depth to accommodate foot deformities and/or foot orthoses
- Breathable, durable upper made of a material that can be stretched if necessary
- Supportive and stable
- Shock absorbing, durable sole made of materials that allow for the sole to be modified if necessary
- Available in multiple widths and shapes to achieve best possible fit
- Typically, not a slip-on style shoe



Custom Foot Orthoses

- Relieve pain
- Provide support and shock absorption
- Accommodate deformities
- Correct misalignment
- Cushion and protect
- Design and fabrication possibilities are endless



Partial Foot Prosthesis

- A.K.A. Toe fillers
- Provide accommodation, support and protection for foot after partial amputation due to diabetes, trauma or other causes.



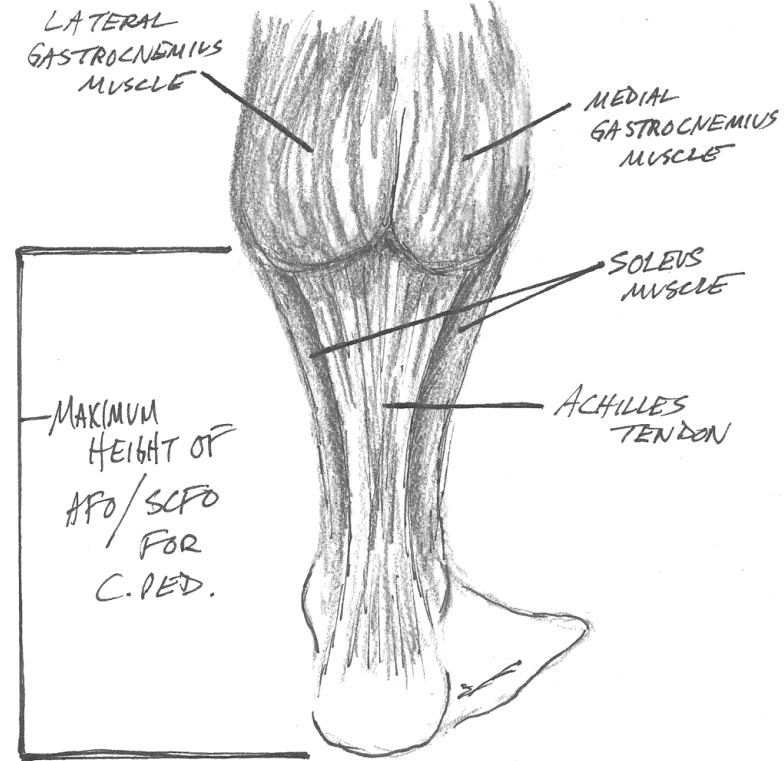
Shoe Modifications

- Stabilize and support foot
- Correct deformities
- Improve safety and efficiency in gait
- Decrease pressure on potential problem spots on foot



Subtalar Control Foot Orthoses

- Ankle Foot Orthosis used to treat conditions originating at or below the ankle and does not extend past musculotendinous junction of the gastrocnemius and the Achilles tendon.



ABC CPed Competency Guidelines

Competency Guidelines

The student shall understand and demonstrate basic knowledge in foot and ankle anatomy, biomechanics, common foot pathologies and pedorthic interventions.

The competency areas must include but are not limited to the following:

1. Basic Anatomy, Biomechanics, Pathology and Medical Terminology
2. Shoe Construction Theory
3. Shoe Fitting
4. Shoe Modifications
5. Custom Molded Shoes
6. Custom and Prefabricated Foot Orthoses
7. Subtalar Control Foot Orthoses (SCFO)
8. Partial Foot Prostheses
9. Practice Management

Pedorthist Test Content Outline

Domain 1 - Patient Evaluation

- Review patient's prescription/referral in order to develop an appropriate diagnosis-specific assessment.
- Take a comprehensive patient history, including chief complaint, diagnosis, medical history (including allergies to materials), results of diagnostic evaluations, work history, vocational activities, demographics characteristics, family and/or caregiver dynamics, patient compliance, patient expectations.
- Assess patient's previous and current use of pedorthic devices and/or footwear and other devices (e.g. lower limb orthoses/ prostheses) using systematic assessment procedures to determine current status and the efficacy of previous pedorthic intervention.
- Assess the patient's feet for deformities and pedal disorders by performing a biomechanical evaluation; and assessing range of motion, alignment, muscle functioning/strength, and gait to assist in the development of the pedorthic treatment plan.
- Evaluate the patient's skin integrity and temperature, level of protective sensation, and circulation to establish the patient's limitations for footwear.
- Consult with primary and other healthcare providers, and caregivers, when appropriate, about patient's condition in order to formulate a treatment plan.
- Verify patient care by documenting history, ongoing care, and follow-up, using established record-keeping techniques.
- Refer patient, if appropriate, to other healthcare providers for intervention beyond pedorthic scope of practice.

Domain 2 - Formulation of the Treatment Plan

- Evaluate the assessment findings to formulate a pedorthic treatment plan.
- Formulate treatment goals and expected pedorthic outcomes to prevent injury, reduce pain, increase comfort, provide stability, reduce risk of deformity, prevent disability, and promote healing to enhance function and independence.
- Develop an appropriate pedorthic treatment plan using assessment data, including the prescription and reimbursement status, to provide optimal patient care, including education and follow-up.
- Identify design, materials, and components to support treatment plan.
- Consult with physician/referral source/appropriately licensed healthcare provider to modify, if necessary, the original prescription and/or treatment plan.
- Communicate to patient and/or caregiver about the recommended treatment plan and any optional plans, including disclosure of potential risks/benefits in pedorthic care.
- Document treatment plan using established record-keeping techniques.
- Confirm that patient or responsible parties are informed of their financial responsibilities pertaining to the proposed treatment plan (for example, insurance verification/authorization, deductibles, co-pays).

Domain 3 - Implementation of the Treatment Plan

- Inform patient and/or caregiver of the pedorthic treatment plan potential risks, goals, and time involved in the procedure.
- Select the appropriate footwear and/or pedorthic device(s), and materials consistent with the patient's condition to maximize the effectiveness of pedorthic treatment.
- Refer to manufacturer's specifications and other technical resources regarding components/materials.
- Measure/fit shoes using assessment data to maximize the effectiveness of pedorthic treatment.
- Measure/fit prescription and non-prescription lower extremity compression garments and diabetic socks/hosiery using assessment data to maximize the effectiveness of pedorthic treatment.
- For custom-molded foot orthoses and/or partial foot prostheses, obtain a negative foot impression using appropriate casting or computer-assisted technology to facilitate fabrication of the device.
- For custom shoes, obtain a negative model of the patient's foot using appropriate casting or computer-assisted technology to facilitate fabrication.
- Document specifications/instructions for fabrication of device.
- Prepare and modify patient model/image for fabrication.

Domain 3 - Implementation of the Treatment Plan

- Fabricate foot orthoses using assessment data to implement the pedorthic treatment plan.
- Fabricate partial foot prostheses using assessment data to implement the pedorthic treatment plan.
- Modify footwear, when required, to implement the pedorthic treatment plan.
- Assess device prior to patient fitting/delivery for structural safety and ensure that manufacturers' guidelines have been followed.
- Ensure that design was followed and materials and components are provided as specified in the treatment plan.
- Conduct trial fittings of a pedorthic device(s), making adjustments as needed, to ensure proper fit and function of devices.
- Provide the patient and/or caregiver with oral and written instructions on the proper use and care of pedorthic device(s).
- Document treatment using established record-keeping techniques to verify implementation of treatment plan.
- Refer patient and/or caregiver to other appropriate healthcare providers as needed.

Domain 4 – Continuation of Treatment Plan

- Obtain feedback from patient and/or caregiver to evaluate outcome (for example, proper usage and function, wear schedule/ tolerance, ability to don and doff, comfort, perceived benefits, perceived detriments, overall patient satisfaction).
- Assess and document patient's function, outcomes of pedorthic device(s), and achievement of treatment goals.
- Assess patient's skin condition (for example, integrity, sensation, color, temperature, and volume) and document any changes.
- Assess fit of pedorthic device(s) with regard to anatomical relationships (for example, trimlines, strategic contact, static/ dynamic assessment) to determine need for changes relative to initial treatment goals.
- Make or supervise modifications to pedorthic device(s) (for example, relieve pressure, change alignment, and/or components) and inform patient and/or caregiver of modifications.
- Evaluate results of modifications and assess modified device(s) for structural integrity.
- Reassess patient's and/or caregiver's knowledge of goals and objectives to ensure proper use of pedorthic device(s) relative to modifications.
- Document all findings and pedorthic interventions and communicate, as necessary, with physicians, referral sources, and other healthcare providers to ensure patient status is updated.
- Develop a long-term follow-up plan.

Domain 5 – Practice Management

- Comply with standard precaution procedures, occupational safety and health rules, and disability accommodation guidelines to protect patients and employees.
- Plan, implement, evaluate, document policies and procedures in compliance with all applicable federal and state laws and regulations and professional and ethical guidelines (for example, CMS, HIPPA, FDAADA, OSHA,ABC Code of Professional Responsibility).
- Develop, document, and implement personnel policies and procedures (for example, benefits, training, staff recognition, regular performance evaluations).
- Maintain adequate inventory, equipment, and supplies to provide pedorthic services in a professional and timely manner.
- Develop, document, and implement a quality assurance plan in order to identify and address deficiencies in current operations and improve overall pedorthic care by reviewing outcomes and addressing complaints from patients, payment sources, and/or referral.
- Develop, document, and implement procedures for patient care that comply with current medical and legal requirements.
- Develop and implement procedures for comprehensive documentation of patient care.
- Operate the pedorthic practice in accordance with sound business principles and governmental requirements.

History of Pedorthics

How it started...

- Skilled craftsmen hand-making shoes
- True shoe fitting in retail shoe stores
- Properly fit shoes, shape, width and size
- Plus adjusting the shoe to fit
- External shoe modifications



Woodcut of shoemakers from Frankfurt am Main, 1568. (public domain)

- Two significant developments led to the podiatric profession
 - Creation of the first real arch support by Dr. Royal Whitman
 - Whitman's Foot Brace was developed in 1885. It was made from plaster cast taken with foot in supinated position. 18-20 gauge sheet steel was formed into a high medial arch in-shoe brace. Goal of the brace was to raise medial arch so foot would be less pronated
 - Creation of the Foot Eazer by William Scholl in 1907



America's Corrective Shoe Era

- 1920's to the late 1940's
- Footwear manufacturers responded to the success of Scholl and America's expanding foot awareness
- Competition led to incredible claims of curative powers of shoes
- Federal Trade Commission launched the Orthopedic Shoe Industry Investigation in 1948

America's Corrective Shoe Era

- The Corrective Shoe Industry collapsed in 1949 following the FTC hearings.
- Something was now needed to give legitimacy to properly applied therapeutic shoes.
- 1957 – Feature Footwear Group
- 1958 – Certified Prescription Footwear Applicators
- 1959 – National Prescription Footwear Applicators

America's Corrective Shoe Era

- 1968 - Prescription Footwear Applicators Association
- 1970 - Prescription Footwear Association
- 1994 - Pedorthic Footwear Association
- Now - Pedorthic Footcare Association



PEDORTHIC FOOTCARE ASSOCIATION
"Pedorthists supporting you, from first step to last!"

“Pedorthics”

- The term didn’t even exist in 1958.
- Created in the 1960s by Morton Hack –
- “ped” – foot, and “orthist” a person who makes braces – “pedorthist”

Pedorthic Education

- Classes were taught by Clyde Edwards, Ball State faculty, representatives of the footwear industry and medical professionals
- The program grew to two classes per year with about 50 students each
- 1972 – PFA gained approval for a pilot prescription footwear fitting course at Northwestern University.
- New York University
- UCLA

The Board for Certification in Pedorthics

- The Board for Certification in Pedorthics (BCP) was founded in 1972 as *the* pedorthic credentialing organization.
- In 2007, BCP merged with American Board for Certification in Orthotics and Prosthetics, with 89% of BCP members voting in favor of the merger.
- ABC then changed its name to: American Board for Certification in Orthotics, Prosthetics and *Pedorthics*



ABC Privileging

- Supervision and Privileging of a Credentialed Caregiver
 - Privileging of credentialed individuals to provide services beyond their defined scope of practice must ensure appropriate, effective, ethical and safe delivery of patient care. The credentialed caregiver may be privileged, under *Indirect Supervision*, to provide patient care beyond the scope of their credential based on Written Objective Criteria.
- Indirect Supervision
 - This level of supervision does not require the supervising credentialed individual to be on site however they must be available for consultation throughout the patient care process. The supervisor must review the results of care and the documentation of the services rendered by the supervised individual and is responsible for countersigning within 15 days all entries in the patient's clinical record. The maximum permissible ratio of certified assistants to the supervising prosthetist or orthotist is 5:1.
- Any privileging must be in compliance with all state laws or rules that apply to the provision of orthotic, prosthetic or pedorthic items and services.

ABC Privileging

- Written Objective Criteria
 - Written objective criteria is the documentation describing how a privileged caregiver's ability to provide a specific patient care service has been assessed and verified. How the caregiver has gained the necessary knowledge and skills to be able to provide a specific patient care service must be clear and related to the diagnosis involved and the orthosis, prosthesis or pedorthic device being provided. This documentation may take different forms including, but not limited to:
 - Proof of completion of continuing education courses related to a particular diagnosis or device
 - Documented in-house training/in-services that are specific to the patient care service that the caregiver is being privileged to provide
 - Documented specific work experience participating in supervised patient care activities

ABC Privileging

- Orthotics:
 - Prosthetists, Pedorthists, Orthotic Assistants and Orthotic Fitters who are credentialed by a nationally recognized Orthotic, Prosthetic and Pedorthic certifying board or are licensed, if applicable, may be privileged based on Written Objective Criteria to provide orthotic care.
- Pedorthics:
 - Prosthetists, Orthotic Assistants, Orthotic Fitters and Therapeutic Shoe Fitters who are credentialed by a nationally recognized Orthotic, Prosthetic and Pedorthic certifying board or are licensed, if applicable, may be privileged based on Written Objective Criteria to provide pedorthic care.

Let's get started...