Incorporating SCFOs Into a Pedorthic Practice

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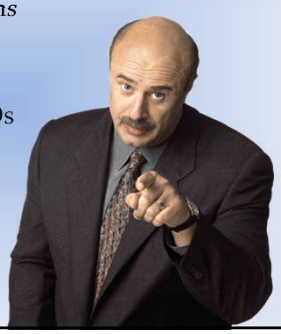
Learning Objectives

- Rules and Regulations Review
- What is a SCFO?
- Indications for SCFOs
- Goals of SCFOs
- Biomechanical Principles of SCFOs
- Types of SCFOs



State Licensure Considerations

- State's rules get applied first.
  - Example: In Texas, a CPed may not provide an Arizona Brace even though it falls within ABC's Scope of Practice for pedorthists because Texas O&P licensure states that pedorthists may not provide anything more than foot orthoses and shoes.

BOC Scope of Practice

- Pretty vague and open-ended
- "…a pedorthic device for the prevention or amelioration of painful and/or disabling conditions related to the *lower extremities*."
- "Pedorthic Devices/Modalities means…below the knee pedorthic modalities."
- Billing issues?

ABC Scope of Practice

- A prescription is required for any pedorthic device, modification, and/or prefabricated below the knee orthosis addressing a medical condition that originates at the ankle or below.
- "Pedorthic devices" means therapeutic shoes, shoe modifications made for therapeutic purposes, partial foot prostheses for transmetatarsal and more distal amputations, and foot orthoses. It also includes subtalar-control foot orthoses (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.

Privileging (ABC)

- **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.

Privileging (ABC)

- **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.

Privileging (ABC)

- What is **Written Objective Criteria?**
  - Means by which a privileged caregiver's ability to provide a specific patient care service has been assessed and documented. The structure and mechanism of 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 or prosthesis 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, and/or documented specific work experience participating in patient care activities.

Privileging (ABC)

- ABC credentialed technicians may be privileged based on Written Objective Criteria to provide services, in the discipline they are credentialed, in the Implementation of the Treatment Plan and Follow-up domains under Indirect Supervision.
- 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 by the caregiver in the patient's clinical record. The Supervisor is responsible for all services that the caregiver is being privileged to provide.

Privileging of Non-credentialed Caregiver (ABC)

- **Supervision and Privileging of a Non-Credentialed Caregiver**
- Supervision and privileging of a non-credentialed caregiver must ensure appropriate, effective, ethical and safe delivery of patient care. The non-credentialed caregiver may be privileged to assist in the provision of patient care based on Written Objective Criteria. In situations where custom fabricated orthotic items are being provided the initial patient assessment, formulation of the treatment plan and the final fitting and delivery must be done under Direct Supervision. For all other levels of care the non-credentialed caregiver is privileged under Indirect Supervision, where the Supervisor must be available for consultation throughout the patient care process.

Privileging (ABC)

- **What is direct supervision?**
  - Direct Supervision requires the supervising credentialed individual to be available in real time for consultation throughout the patient care process and to be able to assess the care being provided by visual means (i.e., physically present, live video, web cam, or by other means of live visual technology). 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 by the caregiver in the patient's clinical record.

Privileging (ABC)

- **What is indirect supervision?**
  - Indirect 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.

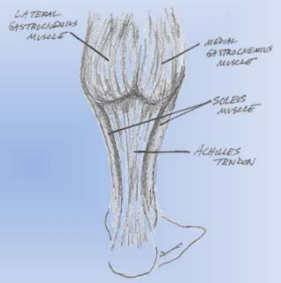
Privileging (ABC)

- **Non-Credentialed Caregiver**
  - Patient Assessment: Direct Supervision
  - Formulation of Treatment Plan: Direct
  - Implementation of Treatment Plan: Indirect
  - Final Fitting and Delivery: Direct
  - Follow-up Care: Indirect

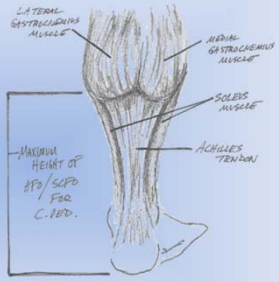
Subtalar-Control Foot Orthosis (SCFO)

- A lower extremity orthosis designed to manage the function of the anatomy distal to the ankle joint by primarily controlling the range of motion of the subtalar joint. The proximal height of a SCFO does not extend beyond the musculotendinous junction of the gastrocnemius and the Achilles tendon. A SCFO is a method of treatment for conditions related to the foot demanding additional surface area to control forces.

What is a SCFO?



What is a SCFO?

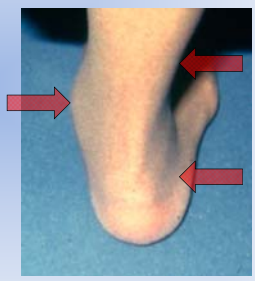


Goals of SCFOs

- Decrease unwanted motion
- Maintain unaffected motion
- Redistribute forces and/or pressures over wider area
- Correct deformity
- Compensate for weakness
- Increase function
- Increase endurance
- Relieve pain

AFO Biomechanical Principles

- Restrict joint rotation
  - 3-point pressure systems
    - Limit motion around one or more joint axes around which rotation may occur
    - At least one 3-point pressure system is required to stabilize a joint



AFO Biomechanical Principles

- Restrict translational motion across joints (Shear Forces)
- Control ground reaction forces
- *Consider: SCFOs and AFOs may directly or indirectly affect proximal body segments, this can be therapeutic or detrimental*

AFO Biomechanical Principles

- FO is the foundation for all lower limb orthoses
  - SC***FO***, A***FO***, KA***FO***, HKA***FO***
- FO should be used to manage as many deficits as possible
- *Consider: Go only as proximally as absolutely necessary*

Planes of Motion

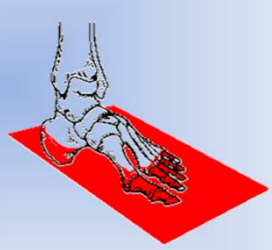
- Sagittal Plane
  - Dorsifexion / Plantarflexion

Planes of motion

- Coronal (Frontal) Plane
  - Inversion / Eversion
  - Varus / Valgus

Planes of Motion

- Transverse Plane
  - Abduction / Adduction



Indications

- Any condition that falls within the pedorthic SOP in which one needs more control than an FO provides
- Primarily coronal plane restriction
  - SCFOs do provide some sagittal plane control
  - Studies show that without shoe, most SCFOs provide little in the way of transverse plane control

Indications

- Posterior tibial tendinitis
- Posterior tibial tendon dysfunction (I and II)
- Sinus tarsi pain associated with acquired pes planovalgus deformity
- Peroneal tendinitis
- Subtalar joint osteoarthritis
- Talonavicular arthritis
- Tarsal coalitions
- Foot drop (TBD)

The Arizona AFO™

- Developed in 1994 by Ernesto Castro, CPed
- The Arizona AFO™ stabilizes the ankle, talocalcaneal, midtarsal and subtalar joints.

The Arizona AFO™

- Lin SS, et al. Non-operative treatment of posterior tibial tendonitis. 1997
- 90% success

The Arizona AFO™

- Augustin JF, Lin SS, Berberian WS, Johnson JE. Nonoperative treatment of adult acquired flat foot with the Arizona brace. Foot Ankle Clin 2003;8(3):491-502.
- Conclusion: AZ AFO can be effective at relieving symptoms and obviating or delaying surgical intervention

The Arizona AFO™

- The Articulated Arizona AFO is designed to stabilize the subtalar, talocalcaneal, and midtarsal joints while still allowing motion at the ankle. It is available with a variety of ankle joints and stops.

The Arizona AFO™

- The Partial Foot AFO is the standard AFO with a partial foot filler and a removable multi-density insole added. The filler portion is built into the device and covered with leather.
- It is designed to fit into a shoe.

Gauntlet-style AFO

- Arthritis
  - John S, Bongiovanni F. Brace management for ankle arthritis. Clin Podiatr Med Surg 2009;26(2):193-197.
  - Bluman EM, Chiodo CP. Tibiotalar arthrodesis. Semin Arthroplasty 2010;21(4):240-246.
- Posterior tibial tendon dysfunction/Adult acquired flatfoot
  - Elftman NW. Nonsurgical treatment of adult acquired flat foot deformity. Foot Ankle Clin 2003;8(3):473-489.
  - Beitl WC, Noll KH. Postsurgical orthotic devices. Foot Ankle Clin 2001;6(2):297-314.
  - Neville CG, Houck JR. Choosing among 3 ankle-foot orthoses for a patient with stage II posterior tibial tendon dysfunction. J Orthop Sports Phys Ther 2009;39(11):816-824.
  - Augustin JF, Lin SS, Berberian WS, Johnson JE. Nonoperative treatment of adult acquired flat foot with the Arizona brace. Foot Ankle Clin 2003;8(3):491-502.
- Chronic Achilles tendinitis
  - Hurwitz SR, Parekh S. *Musculoskeletal Examination of the Foot and Ankle: Making the Complex Simple*. Thorofare, NJ: Slack; 2011.
- Partial foot amputation
  - Goldberg B, Hsu, JD, eds. *Atlas of Orthotics and Assistive Devices*. Third edition. St. Louis, MO: Mosby; 1996.

The Richie Brace®

- The Richie Brace® was designed and introduced to the medical community in 1996 by Doug Richie, DPM.
- Recognized by podiatrists, pedorthists, orthotists and orthopedic surgeons as a technology to treat a wide variety of foot and ankle pathologies.

THE RICHIE CALIFORNIA AFO BRACE

- Clinical Indications:
  - Rigid, non-reducible Adult Aquired Flatfoot (Stage III & IV)
  - Severe DJD or Deformity of hindfoot
  - Charcot Anthropathy
- Features:
  - Adjustable Leather Closure over tibia & forefoot
  - Patented Medial or Lateral Arch Suspender
  - Rearfoot Stabilizing Post
  - Continuous single strap closure-no laces
- Benefits:
  - Total restraint of foot and ankle movements
  - Self-adjusting arch support
  - Prevents medial/lateral instability

Richie OTC

- Clinical Indications:
  - Acute Ankle Sprain
  - Tendinopathy of the Foot and Ankle
  - Interim brace befor custom AFO
- Features:
  - Prefabricated orthotic footplate in 4 sizes
  - Full flexion ankle joints or restricted hinge ankle options
  - Adjustable Velcro strap closures
- Benefits:
  - Powerful footplate control over the ankle and hindfoot
  - Economical on-the-spot treatment of acute injuries
  - Interim brace before custom AFO

Marzano Short-Articulated AFO

- Alvarez RG, et al. Stage I and II posterior tibial tendon dysfunction treated by a structured nonoperative management protocol: an orthosis and exercise program. Foot Ankle Int. 2006 Jan;27(1):2-8.
  - Treated with aggressive PT and either an FO (30%) or SAAFO (70%).
  - 83% of the patients had successful subjective and functional outcomes.
  - 89% were overall satisfied.
  - 11% required surgery after failure of nonoperative treatment.
  - Conclusion: Patients with stage I and II posterior tibial tendon dysfunction can be effectively treated nonoperatively with an orthosis and structured exercises.

Marzano Short-Articulated AFO

- Clinical outcome study presented at 1992 AOFAS Summer Meeting.
  - 79% of patients completely satisfied
  - 90% showed improvement
  - Avg wear of 9 hrs/day

Moore Balance Brace

- Custom brace designed primarily for improvement in balance.
- Yalla SV, et al. Balance improvement in older adults using customised ankle foot orthoses. 2013
  - Body sway during balance testing decreased by 68% and 75% compared to shoes and barefoot.
  - Use of an AFO provides an immediate reduction of fall risk in the elderly without encumbering functional reach of gait.

Hindfoot Restraint Brace™

- Developed by Wilson-Janisse Group in 2012
- Very thin, easy to wear in shoes
- Great cosmetic acceptance
- Excellent alternative to UCBL / AZ AFO


Hindfoot Restraint Brace™


Breg Ultra CTS™

- Provides a convenient transition from a walking boot to an AFO that extends above the ankle for greater support than traditional ankle braces
- Hinged-cuff technology restricts excessive inversion and rotation
- PerformaFit™ upright that can be detached when a patient is ready to return to activity
- Heat moldable footplate
- Universal left or right
- Retail: $125-$150

Off-the-shelf SCFOs

Foot-Up® (Ossur)

- Lightweight ankle-foot orthosis that offers dynamic support for drop foot or similar complaints. Provides visible improvement in gait by supporting the foot the moment it is raised.
- Dynamic support for drop foot or similar complaints for which support of dorsiflexion is desirable
- MSRP $133.95

FREEDOM® Soft (AliMed)

- 100% self-contained foot drop brace
- Can be worn without shoes
- Made entirely from the most thinnest neoprene available
- Retail: $70

FREEDOM® Swedish AFO

- Provides static dorsiflexion assistance and lateral stability area
- Injection molding allows for thicker polyethylene
- Thinner footplate that may be trimmed with a pair of ordinary scissors
- MSRP $72-

- Can a CPed provide foot drop braces?

Billing Considerations

- May not bill outside your Scope of Practice
- Practitioner's name and credentials go on every billing form…
  - Best case scenario, Medicare busts you on the front end and denies payment.
  - Worst…they find it in an audit down the road.

Thank you!