

Foot Orthotics

Standard of Practice for Chiropractors and Podiatrists

I. INTRODUCTION

Foot Orthotics are an integral part of patient care in the management of pedal pathologies and are used to improve gait and to alleviate pain and discomfort from abnormal foot function or structure.

These Standards of Practice reflect what should be done by Chiropractors and Podiatrists with respect to the manufacturing and dispensing of orthotic devices. [For purposes of this Standard of Practice "dispensing" includes fitting foot orthotics and educating the patient on their proper use to maximize their effectiveness.] However, this treatment therapy is dependant on many variables including each patient's medical history, footwear, activities, and work environment. As a result of the personalized treatment plan and this multi-factorial and complex process, deviations from this Standard of Practice may be called for in certain circumstances. In these situations, the patient chart should clearly document the revised treatment process and the justification.

The College of Chiropractors of Ontario has developed its orthotics standard to ensure that the public of Ontario has access to safe and effective foot care, including safe and effective foot orthotics

II. BACKGROUND TO FOOT ORTHOTICS

Unlike the case with hearing aids, dental prostheses and eyewear, neither prescribing, nor dispensing foot orthotics is a controlled act under the *Regulated Health Professions Act (RHPA)*. These functions are deemed to be "public domain acts", able to be lawfully performed by any regulated or unregulated practitioner. Accordingly, in today's marketplace, members of many different professions and practitioners with varying levels of competency prescribe and dispense foot orthotics. Extended health benefits insurers, employers and other stakeholders are increasingly concerned about the excessive utilization and sometimes outright fraud in prescribing and dispensing orthotics. Extended health benefits insurance coverages are increasingly limiting coverage, or applying restrictions with respect to prescribing and dispensing.

Even though prescribing and dispensing foot orthotics are in the public domain, Chiropractors and Podiatrists are the only health care providers whose statutory scope of practice explicitly includes the provision of orthotics: "The practice of chiropody is the assessment of the foot and the treatment and prevention of diseases, disorders or dysfunctions of the foot by therapeutic, orthotic or palliative means." *The Chiropody Act, 1991*. Accordingly, Chiropractors and Podiatrists are expected to apply their unique scope of practice, competencies and best clinical practices to prescribe and dispense the highest quality foot orthotics possible and to show leadership in that regard within the health care community and within the health care delivery system.

Members of the College of Chiropractors of Ontario have extensive knowledge of lower limb biomechanics, and must uphold standards of practice to ensure that they are providing the most functional devices possible, along with comprehensive orthotic case management. The desired outcome is to control and/or improve the function or stability of the foot by preventing or encouraging motion of the foot joints, thereby restoring equilibrium between the foot and the lower body kinetic chain.

Over-the-counter prefabricated devices are readily available in the marketplace. Although prefabricated devices can be helpful on their own, or can sometimes be modified to resolve a patient's condition, these must not be offered, or conveyed to the public, or represented as custom-made/custom-molded devices.

III. CUSTOM-MADE FOOT ORTHOTICS

A functional device that is custom-made/custom-molded is generally the prescription of choice for patient treatment. However, an accommodative device may be prescribed for patients for whom a functional device is not necessary or appropriate.

A. Functional Device

Objectives for Functional Orthotics

- To control and/or improve the function of the foot to a specific degree as determined by a thorough biomechanical evaluation in order to alleviate pedal and lower extremity musculoskeletal symptomatology, and
- To prevent or slow down the development of abnormal forces and subsequent deformities by mechanical control.

Causes for the need of Functional Orthotics

- Structural weaknesses or deformities, most often inherited, or acquired through trauma, contributing to abnormal, imbalanced bone and /or soft tissue structure, which may result in compensatory changes in other parts of the body.
- Overuse syndromes

Prescription of a Functional Orthotic should include:

- A thorough biomechanical examination with appropriate measurements taken and recorded
- A stance and gait analysis
- Non-weight-bearing plaster of paris casts, non-weight-bearing STS slipper casts or equivalent, or three-dimensional, non-weight-bearing scanning of the feet.

Construction of Functional Orthotic Devices

- The orthotic devices must be constructed from the prescription and fabricated from appropriate materials in consideration of the patient's diagnosis, footwear and activities.

One Recommended Negative Casting Technique for Orthotics

- A plaster of paris negative suspension cast in the neutral position is ideal for the prescription of functional orthotics. To date, this method is the most effective. However, as more clinical evidence becomes available, the ideal casting technique recommendations may be amended.
- Plaster of paris is applied to the foot with a two-splint technique.
- The foot is then positioned so that the subtalar joint is held in the neutral position, without pronating or supinating the foot. While keeping the foot in subtalar neutral, the midtarsal joint should be pronated, and the ankle joint dorsiflexed to resistance or 90 degrees. Hold the cast in this position until the plaster dries sufficiently.
- Once the cast is removed, it should be evaluated to ensure that an accurate impression was taken reflecting the patient's condition, and contours of the foot.
- The aim is to create an accurate replica of the forefoot to rearfoot relationship.
- It is important to remember that the quality and efficacy of the orthotic is dependent upon the accuracy and precision of the negative cast.

B. Accommodative Device

An accommodative device is prescribed for patients for whom a functional device is not appropriate.

Objectives for Accommodative Orthotics

- To provide a measure of control to the function of the foot in order to alleviate pedal and lower extremity musculoskeletal symptomatology, and
- Prevent the worsening of pedal deformities by mechanical control
- Deflect pressure from ulcers, hyperkeratoses, and areas of excessive pressure, which permits forces to be evenly distributed to the foot
- Increase cushioning of the foot

Causes for the need of Accommodative Orthotics may include:

- Structural weaknesses or deformities, most often inherited, or acquired through trauma or surgery
- Complications as a result of systemic disease causing a high-risk foot with a potential for soft tissue breakdown.

Prescription of an Accommodative Orthotic should include:

- A thorough biomechanical examination with appropriate measurements taken and recorded
- A stance and gait analysis
- Plaster of paris casts, non-weight-bearing STS slipper casts or equivalent, or three-dimensional, non-weight-bearing scanning of the feet.

Construction of Accommodative Orthotic Devices

- The Member must take reasonable action to ensure the orthotic device is constructed from the prescription and is fabricated from appropriate materials in consideration of the patient's footwear, activities and circumstances.
- Custom-made orthotic devices may also be a combination of functional and accommodative devices, not necessarily one or the other.

IV. DELIVERING FOOT ORTHOTICS TO THE PATIENT

(Applies to Functional and Accommodative Devices)

1. New foot orthotics should be both prescribed and dispensed by the same practitioner, in order to provide patients with a seamless continuum of care and in order to ensure there is no fragmentation or confusion of responsibility and liability for results. A qualified staff who is employed by the member may also dispense the orthotics provided that the member has assigned such responsibility to their competent staff member. If the patient (or the patient's agent or extended health benefits insurer) insists that the device be manufactured and/or dispensed by someone else, the Member should provide the prescription to the patient, but must also warn the patient that the Member cannot be held responsible for the quality or fit of the orthotic. The member should also ask the patient to sign a written waiver to that effect.
2. There must be a patient-practitioner relationship for a Member to prescribe and/or dispense foot orthotics to anyone.
3. New orthotics should be fitted by the Member who prescribed the orthotic to ensure that the fit of the device meets the prescription, and the contours of the patient's foot.

4. The Member should provide the following advice/guidelines to the patient in a manner that can be understood by the patient:
 - Guidelines for developing tolerance and acceptance of the devices
 - Time frames to achieve potential results
 - Appropriate footwear for the patient's:
 - a. condition
 - b. activities
 - c. orthotic devices.
5. The requirements for follow-up to the dispensing of orthotic devices include:
 - Provide short term instructions for usage of the devices.
 - Offer a follow-up appointment within a reasonable period of time after dispensing the orthotic devices (such as 3-4 weeks). This should be documented in the patient record. A telephone follow-up would suffice, if the patient does not require or attend a follow-up visit.
 - Advise the patient regarding the need for periodic long-term check-ups.
6. The Member should address what the patient may expect regarding the outcomes from the treatment. Although the practitioner cannot guarantee the success of any treatment, a reasonable level of patient satisfaction is expected. The practitioner should explain these expectations in advance, both at the time of obtaining consent (prior to casting for the orthotics), and at the time of dispensing.
7. Each practitioner should have an office policy to deal with patient dissatisfaction. This policy should be communicated to the patient before initiating treatment. While patient non-compliance may contribute to lack of success with orthotics, the Member is expected to expend best efforts in working with the patient to achieve the best results and compliance.

V. PAYMENT

1. In those situations where the Member (or a family member) owns, or has a pecuniary interest in, the laboratory manufacturing foot orthotics prescribed by the Member, the Member is obligated to fully disclose that interest to the patient before, or at the time, the prescription is prepared.
2. If requested to do so, Members should provide a copy of the manufacturer's invoice (which only indicates what corrections were applied to the device and not including lab fees) to the patient, the patient's agent and/or the patient's extended health benefits insurer.

VI. CONCLUSIONS

The College of Chiropractors of Ontario has developed its Orthotics Standards of Practice to reflect the best available clinical evidence. Within the context of constantly evolving information, practitioners are encouraged to continually evaluate their orthotic prescription strategies and procedures to maintain currency with best practices. In this way, Members can ensure that patients are achieving the most positive health outcomes possible and that Chiropractors and Podiatrists are competent providers of orthotics.

The College of Chiropractors of Ontario recognizes that there can be exceptions to these standards where all of the above conditions cannot be met (i.e. physical and/or psychological limitations of the patient or uncooperative patients, especially young children). In these situations, an explanation should be given to the patient or guardian as to why all the criteria were not met in prescribing and dispensing the orthotic devices and this explanation should be noted in the chart.

VII. GLOSSARY OF TERMS

Accommodative foot orthosis – a device designed with a primary goal of conforming to and re-balancing the individual's foot, allowing plantar-grade floor contact, which permits forces to be evenly distributed to the foot.

Custom-made/Custom-molded foot orthosis – any foot appliance or device molded to a positive model of the individual's foot and also made of suitable materials with regard to the individual's condition. It is either accommodative or functional and is removable from the patient's footwear. A foot orthosis shaped via a self-molding (self-contouring) process is not a custom-made/custom-molded foot orthosis, nor is a modified, prefabricated device.

Customized foot orthosis – any prefabricated appliance or device that requires modification or assembly to accommodate a condition or alter lower extremity biomechanical function and is removable from the individual's shoe. Cutting a prefabricated inlay to an indicated trimline does not constitute customizing a foot orthosis. A customized prefabricated device is **not** a custom-made/custom-molded foot orthosis.

Functional foot orthosis – a device designed to control an individual's lower-extremity biomechanical function by providing support or stability.

Orthotics – means Orthotic Devices or Orthoses

Patient – includes a patient's agent or advocate and the patient's extended health benefits insurer.

Prefabricated foot care products – any mass-produced prefabricated foot care item, appliance or device that is sold over the counter and is readily available, including prepackaged and non-packaged products.

STS Slipper Cast – a casting product with a fast setting resin used to obtain a quicker, accurate mold of the foot without the mess of plaster.