



Winnipeg Prosthetics & Orthotics

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Defining the Certified Orthotist C.O.(c)

The difficulty in obtaining an orthotic provider is identifying who is the best qualified

CERTIFIED ORTHOTISTS STAND ALONE AS A RESULT OF THE SPECIFIC TRAINING AND SPECIALIZED KNOWLEDGE IN THIS SCOPE OF PRACTICE

THE USE OF AN ORTHOTIST'S HANDS BOTH IN ASSESSING THE PATIENT AND FABRICATING A CUSTOM-FITTED DEVICE FOR TREATMENT SEPARATES THIS FIELD FROM ANY OTHER

For many physicians and allied health professionals, orthotics and prosthetics have been somewhat of a **mystery** in regards to who provides them and what **qualifications** one must possess to do so. In any community, orthotics and prosthetics are an important medical resource; thus, knowledge of the field and its qualified providers is invaluable to patients and practitioners alike.

Before delving into this topic, it is perhaps worth differentiating "orthotics" from "prosthetics." A **prosthesis** (singular) is an external **artificial limb** designed to replace a natural limb lost from amputation or congenital defect.

An **orthosis** tends to stir up more confusion largely due to the numerous "orthotic" providers in this country. An **orthosis**, from the Greek for "to make straight," is an **external appliance** that supports, corrects, stabilizes or immobilizes a joint or limb. This includes **foot orthoses, often referred to as "orthotics,"** but also includes the **vast number of custom and off-the-shelf braces such as those commonly seen for the knee, wrist or ankle.** A brace is sometimes also referred to as a splint.

In Canada, *many allied health providers sell orthotics for the feet*, but there is **only one field with specific training and specialized knowledge in the field of orthotics as a whole.** Enter the **CERTIFIED ORTHOTIST C.O.(C).** There are two main schools in Canada that yield orthotists: George Brown College (GBC) in Toronto and BCIT in Burnaby. Both programs are two years in length and require a prior undergraduate degree in a related field such as kinesiology or physiology. GBC accepts eight students per year, while BCIT accepts 12 every second year. Acceptance, therefore, is difficult based on statistics alone. Entrance exams, along with interviews and CVs, are used to screen approximately 100 candidates for final enrollment.

Each program incorporates both lectures and hands-on clinical/technical practice. As the two fields are very closely related, students learn both prosthetics and orthotics, and relevant topics are studied very thoroughly. These include anatomy, physiology, pathology, biomechanics/pathomechanics, materials science and clinical assessment applications. Orthotically, this includes **clinical presentations and pathologies** of the feet, ankles, knees, hips, spine and upper limbs. Being a clinically oriented program, there is a **strong focus on performing a detailed neuro-musculo-skeletal assessment, gait analysis, and subsequent orthotic treatment.** This also involves taking an accurate cast and/or measurement of the relevant body segment, followed by skilled training in the sculpture of the patient plaster model. Fabrication, mechanics and proper fit of each brace are not ignored, as they are critical to the function of the brace and the outcome of the patient.

Upon graduation, the clinician begins a 23-month residency in either prosthetics or orthotics. This residency culminates with the board certification exams: three days of immeasurable stress. Day one consists of six hours of written exams.; days two and three involve verbal and practical exams. When one succeeds in passing these grueling tests, a Certified Orthotist (C.O.(c)) or Prosthetist (C.P.(c)) is born. The entire four-year process ensures that the Certified Orthotist or Prosthetist is well-prepared for real life clinical situations. In fact, **Canada's Prosthetists and Orthotists are of the highest international standards and thus are often sought after in global work-abroad situations.**

Typically, a patient is seen in an orthotic clinic upon referral from a physician for a particular patho-mechanical problem. An orthotist will assess the patient physically and obtain subjective and objective data (which may include a gait analysis). An orthotic treatment is then determined and an accurate patient model is created for **in-house fabrication of the appliance.** A second appointment is made to fit the device and analyze its outcome. **Follow-up appointments are standard practice** and are made to ensure patient care and compliance.

The difficulty for the patient and referring physician is the plethora of *foot orthotic* providers from which to choose. Orthotic costs, though often ultimately covered by third-party payers, are nonetheless significant enough to raise questions about choosing a provider that will guarantee value, service and outcome. Here are six key points to investigate when seeking orthotic service to ensure the patient is in good hands:

1. **The clinician is Canadian-Certified.**
2. **The facility is accredited.**
3. **A thorough physical assessment and gait analysis (if needed) is conducted.**
4. **The clinician uses a method to obtain a three-dimensional model or hand cast of the body segment.**
5. **Follow-up appointments are encouraged to ensure a mutually desired outcome.**
6. Perhaps paramount to the above suggestions is the **assurances that there is recourse in place** for the patient should something fail in the orthotic treatment.

Orthotics and bracing offer highly effective treatments for many medical conditions. Furthermore, **the use of an Orthotist's hands both in assessing the patient and fabricating a custom-fitted device for treatment separates this field from any other.** The spectrum of brace designs are many, but generally include foot orthoses, ankle braces, ankle-foot-orthoses (AFO), knee braces, knee-ankle-foot-orthoses (KAFO), spinal braces and upper extremity braces.

Hopefully this article will help both physicians and patients better understand the available care from a certified orthotist and differentiate between certified practitioners and non-certified orthotic providers. Links to our governing bodies: www.pando.ca and www.cbcpo.ca.