A Resource for Canada’s Insurance Industry

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Glossary

Pedorthic Terminology

A glossary prepared by the Pedorthic Association of Canada for Extended Health Benefits Providers and Third-Party Agencies. This glossary provides a list of terminology and definitions commonly used in pedorthic practice. Questions regarding specific products and services offered by a Canadian Certified Pedorthist – including items not listed here – should be discussed directly with the pedorthist.

Pedorthic Designations

Certified Pedorthic Master Craftsman – C. Ped MC

A C. Ped MC has been certified as a C. Ped (C) and is also certified in custom shoe design and manufacturing.

Certified Pedorthist (Canada) – C. Ped (C) (also, “Canadian Certified Pedorthist”)

A C. Ped (C) is highly educated in postural analysis, movement patterns, and musculoskeletal examination. More specifically, they focus on the assessment of lower limb anatomy, muscle and joint function, as well as the interaction of the foot and lower limb with the rest of the body. In addition, they are trained in the design, manufacture, and modification of foot appliances, and the clinical fitting and modification of footwear for the purposes of (a) alleviating painful or debilitating conditions; and (b) providing assistance for the abnormalities or limited actions of the lower limb.

Certified Pedorthic Technician (Canada) – C. Ped Tech (C)

A C. Ped Tech (C) is trained in the practice of shoe fitting, footwear modification, and orthotic fabrication from files produced by health care professionals with the ability to assess, such as a C. Ped (C) or C. Ped MC. A C. Ped Tech(C) may perform duties of a clinical pedorthist under the direct supervision of a C. Ped (C) or a C. Ped MC.

Basic Terminology

Cast: a three-dimensional (volumetric) model designed to capture the specific contours of the plantar aspect of the foot. Acceptable casting techniques are foam box casting, plaster slipper casting, a casting sock, wax slipper casting, contact digitizing and optical/laser scanning. A two-dimensional footprint from a pedograph or pressure sensitive mat does not qualify as a cast.

Custom-made: the term is reserved to define a product fabricated from a three-dimensional model of the foot which capture bony alignment and shape and is manufactured from raw materials. A device must be fabricated from a “cast” and footwear must be fabricated from a “last” unique to the patient to qualify as custom-made.

Direct-moulded (non-casted): refers to a device moulded directly to the foot from raw materials that are warmed until soft. This device can be further modified and used to provide cushioning, pressure relief, redistribute load and accommodate deformity (a self-moulded product is not considered direct moulded).

Gait analysis: the observation of the entire body with a focus on lower extremity to determine deviations in alignment, movement patterns, and symmetry during walking. This may be done visually or through video recording.

Last: a three-dimensional (volumetric) model designed to capture the specific contours of the entire foot. Acceptable techniques are plaster casting, casting sock and optical/laser scanner. A two-dimensional footprint, foam cast, slipper cast or contact digitizing are not acceptable techniques.
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**Modified**: a mass-produced pre-fabricated/over-the-counter device that has been altered by the addition or deletion of material in order to modify movement or accommodate pain or dysfunction.

**Pedorthic assessment**: the assessment of lower limb bony alignment, posture, movement patterns, general function of the foot, and the interaction of the foot with the rest of the body. Typically a Pedorthic Assessment includes a history taking, postural analysis, musculoskeletal examination, functional testing, gait analysis, and footwear consultation.

**Pre-fabricated OTC (over-the-counter) or stock**: refers to mass produced devices and footwear that are not unique to the patient.

**Self-moulded**: refers to a mass produced pre-fabricated/over the counter device that can be heated and moulded directly to the foot.

**Products Provided**

**Custom foot orthoses (orthotics)**: an internal foot appliance which is manufactured from a three-dimensional image of the foot, and made from raw materials. A custom foot orthotic can accommodate bony deformities, and/or modify the movement pattern of the foot and lower limb.

**Custom-made footwear**: footwear that is manufactured from a three-dimensional mould of the foot and ankle, and made of raw materials. Custom made footwear is specifically designed for each and every individual. It is usually needed when stock footwear will not fit due to deformity, or will not suit the client due to significant dysfunction.

**Custom-made toe splint**: a device manufactured from a raw material (typically a silicon-like material) designed to re-align, separate or support a deformed or deviated toe or toes.

**External Modifications**

**Balloon patch**: permanent, external modification to the upper of the shoe by addition of material to accommodate a bony prominence such as a bunion, hammer toe, etc. This is not the same as point stretching.

**Buttress**: permanent, external modification to the midsole, outsole and the upper, to bolster the support available through the midfoot.

**Closure modification**: permanent, external modification of the upper of the shoe by the addition of leather and fabric. Examples include the addition of Hook & Loop (Velcro) straps, buckles, or a closure system including both hook & loop and lacing (Lace Stitch Velcro). This modification allows the use of footwear by an individual not able to use the original closure due to bony deformity of the foot or dysfunction of the hands, back, hips or knees.

**External metatarsal bar**: permanent, external modification to the midsole in which a “bar” of material is added beneath the ball of the foot to change the flex point of the shoe. Similar to a Rocker Sole but with less adjustability and specificity of treatment.

**Flare**: permanent, external modification to the midsole and outsole to widen the base of support on the inside (medial) or outside (lateral) portion of the shoe.

**Rocker sole**: permanent, external modification to the midsole and outsole in which material is added and the flex point of the shoe is modified to allow improved function, or protection of the foot and ankle.

**SACH heel (solid ankle cushion heel)**: permanent, external modification by addition of a softer durometer (compressible) material replacing a portion of the back heel base. SACH heels reduce shock at heel strike and compensates for diminished ankle motion.

**Shuffle plate**: permanent, external modification by addition of a smoother, more slippery material to the forefoot of a client’s shoe. Useful when the client is unable to fully lift the forefoot, specifically when walking in a carpeted environment.
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**Sole bar**: a steel or carbon fibre, full-length bar, laminated between the sole to eliminate dorsiflexion.

**Sole lift**: permanent, external modification of the midsole and outsole to add a prescribed amount of height to one or both shoes.

**Thomas heel**: an anterior medial extension longer than the standard heel to add rear foot or midfoot support medially.

**Internal Modifications**

**Excavation/well**: indent into sole or footbed of shoe to provide immediate relief of plantar pressure. It helps reduce pressure of plantar prominences such as dropped metatarsal heads, arthritic nodules, etc. as well as pressures of diabetic ulceration sites. Can be filled with soft material to provide cushion and reduce soft tissue stress.

**Split sole**: technique used to widen footwear base of support. It is ideal for rigid pes planus feet but can be performed at any area of the shoe as it does not affect the flex point (i.e. bunions). Durable modification to shoe, but shoe choice is more limited (the ideal sole is a thicker PU sole material).

**Minor Footwear Alterations/Additions (not considered permanent modifications)**

**Doughnut**: soft material cut in a hollow circle fastened to the inside of the shoe to alleviate pressure from bony prominences or soft tissue lesions.

**Heel grip pad**: soft material applied to inside of heel counter to reduce heel movement inside the heel cup during gait.

**Internal heel lift**: temporary lift placed on the heel seat inside one or both shoes to raise the heel(s) slightly. Can be used singularly for minimal leg length differences.

**Internal metatarsal support (pad)**: the addition of a mound of material added to the area of the shoe just proximal to the ball of the foot to support the transverse (metatarsal) arch.

**Posting (wedging)**: the addition of “wedges” or “shims” to modify the angle of the rear foot (heel) and/or forefoot (ball) inside the shoe.

**Scaphoid pad (arch support/arch cookie)**: the addition of padding or support to the medial longitudinal arch of a shoe. Typically used for children, or individuals requiring a lifting of the inside arch of the foot when a custom-made orthotic is not feasible.

**Tongue pad**: a foam or felt pad shaped like the tongue of a shoe fastened to the inside of the tongue to take up space in the instep. This can be used to improve fit, reduce heel slippage, or accommodate bony prominences.

**Upper stretching**: technique used to increase girth volume of footwear upper in general or at specific sites. A shoe stretcher (wooden last-type hand held unit) is used for overall stretch of shoe upper; additional stretch to specific areas through use of ‘buttons’ (small nib attached to stretcher). A ball and ring stretcher (a tong-type hand-held metal apparatus) is used for more specific stretch sites; ideal for bunion pressure, hammer toes irritation, etc.

**Specialty Footwear/Braces/Splints**

**Arch brace**: off-the-shelf device designed to support the medial longitudinal arch or metatarsal of the foot. Often used to replace taping or strapping. It can be useful for clients not needing custom made devices, or unable to wear footwear for specific activities.

**Forefoot relief shoe**: single footwear device which decreases or eliminates external pressure to the plantar surface of the forefoot. Useful as a post-operative choice following forefoot surgery or as a device to protect an ulcerated area of the forefoot.

**Overboot**: footwear designed to cover shoes, boots and sandals to protect them from the elements; may also include insulating properties. These products allow the client to continue their use of specific footwear and orthotic devices during inclement weather.
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Plantar fasciitis (dorsiflexion) night splint: off-the-shelf brace, fit for the client and designed to maintain the ankle and forefoot in a dorsiflexed position during sleeping. It is useful in treatment of plantar fasciitis, Achilles tendonitis, and a number of other diagnoses involving the range of motion of the ankle. Can also be custom made as per prescription.

Post-op shoe(s): footwear designed to accommodate swelling, dressings and possible hardware present following an operative procedure. Typically sold as a single shoe, post-op shoes may also be used as a pair following bilateral surgery. May also be used to help establish equal heel heights when regular footwear cannot be worn.

Rear foot relief shoe: single footwear device which decreases or eliminates external pressure to the plantar surface of the rear foot. Useful as a post-operative choice following rear foot surgery or as a device to protect an ulcerated area of the rear foot.

Rocker-soled walking brace: a walking boot designed to treat ankle and foot disorders resulting from a systemic disease or injury, as well as after surgery.

Toe alignment splint: off-the-shelf device designed to re-align the great and lesser toes. Useful in treatment of flexible deformities of the toes such as hammer toes, mallet toes, claw toes, bunions, and over-crossing toes.

Toe splints/pads/cushions: off-the-shelf devices designed to cushion, align or accommodate bony deformities. These items are often used to stave off surgical intervention.

Stockings, Hosiery, and Specialty Socks

Gel socks: hosiery containing a layer of silicon-like material on the bottom side. Often prescribed and used by individuals with diabetes, various forms of arthritis, and fat pad degeneration.

Medical compression stockings: the basic treatment for chronic venous insufficiency and lymphedema. Treatment of venous problems depends on the severity of the condition. The greater the severity, the higher the prescribed compression. Compression is graduated, strongest at the ankle with decreasing compression up the leg. This design compresses dilated veins to help move blood up the legs and back to the heart. If swelling of the foot and lower leg is not controlled, the fit of a shoe is compromised and could lead to additional complications.

Seamless socks: hosiery that contains no seams exposed to the skin. Often prescribed and used by individuals with Diabetes, various forms of arthritis, and dermatological conditions.