

Types of Pedorthic Footwear Modifications

Footwear has come a long way in terms of offering orthopedic / therapeutic features without affecting style, however sometimes the shoe may need modifying to produce better results. The types of modifications a Canadian Certified Pedorthist can complete range from the simple to complex and include:

- **Stretching:** stretching is a simple solution to improve the fit of a shoe. It can be done to a specific area of the foot (ball and ring stretcher) or for the whole forefoot.
- **Removing seams:** sometimes a shoe does not stretch well due to heavy seams that resist stretching; a Canadian Certified Pedorthist can remove the stitches from certain areas of the shoe (i.e. the location of a painful bunion) to relax the materials without affecting the shoe.
- **Balloon patches:** should stretching and removing the seams be insufficient, Canadian Certified Pedorthists may remove the material in a certain area, and add a balloon patch to increase the room in the shoe.
- **Sole splits:** the above modifications can increase the room available inside the shoe or decrease the stiffness of an area of the shoe. Often, the soles of the shoes can remain narrower than the upper portion of the shoe, which can pose problems. As the foot overlaps the narrow sole, this can result in increased pressure on certain parts of the foot as they "overhang" the sole; especially detrimental for people with diabetes and arthritis. Canadian Certified Pedorthists may modify existing shoes by "splitting" the sole in whatever area necessary and making the sole of the shoe wider by up to 3/8".
- **Excavations:** the inside of the shoe (i.e. ball of the foot or under the second toe) can be ground down in specific areas to reduce the pressure on sensitive areas.
- **Reinforcements:** if shoes tend to wear prematurely, Canadian Certified Pedorthists can reinforce a patient's shoes with plastic inserts to reduce premature wear.

- **Flares and buttresses:** if reinforcements are still not sufficient to stop the foot from "rolling out" (supinating) or "rolling in" (pronating), Canadian Certified Pedorthists may add material to the outside or inside edge of the shoes, respectively, to stop the foot from distorting the shoe. A flare is an addition to the sole of the shoe, whereas a buttress actually comes up against the leather part of the shoe as well as the sole.
- **Rocker soles:** a rocker sole can have several functions depending on where the fulcrum (tipping point) of the rocker is situated on the sole of the shoe. Rocker soles can be created to relieve pain in the ball of the foot or to improve gait for patients with fused ankles or fractured heel bones. Rocker soles can also aggressively offload certain areas of the foot for more acute conditions such as stress fractures or diabetic ulcers.
- **Lifts:** without even knowing it, many people actually have a shorter leg which manifests itself in knee problems, lower back pain, or foot problems strictly on one foot (usually the longer leg). To rectify this problem, Canadian Certified Pedorthists may insert smaller lifts inside the shoe (internal lifts), up to 3/8" thick. More severe leg length differences can be corrected by the addition of material to the outside of the shoe, as part of the sole (external lifts).

These modifications can be made to everyday footwear - as well as athletic footwear. Canadian Certified Pedorthists have the experience and knowledge to modify sports footwear such as hockey, speed or figure skates, and boots for hiking, skiing or snowboarding. Some modifications are not appropriate for all types of footwear and your options should be discussed carefully with a trained Canadian Certified Pedorthist.