

## Men's and Women's Athletic Footwear

For many of us, the first thought that enters our minds when it is recommended that we try on a pair of athletic shoes is "...but I am not an athlete, why would I wear athletic shoes?" The truth of the matter is you don't need to be an athlete to wear athletic footwear. More and more people are discovering that for every day wear, quality athletic footwear provides the best overall fit, support, and comfort of any type of footwear. No other type of footwear places so much focus on the specific needs and requirements of every individual and foot type.

Top athletic footwear manufacturers spend millions of dollars each year on research and development producing footwear that fits and performs to the highest standards. Styles are constantly being developed with new technologies that have been engineered to meet and surpass the needs of specific individuals with specific foot types and foot biomechanics.

Canadian Footwear has a highly trained team that understands the diverse selection of product available, with the experience to recommend and properly fit the appropriate styles that best suit you and your needs.

Our selection of athletic footwear features top brand names including ***New Balance***, ***Saucony***, ***Brooks*** and ***Etonic***. These brands have been carefully chosen by Canadian Footwear for their quality product, reputation and dedication to producing footwear in multiple widths.

### How to Choose the *Right* Athletic Shoe

It is important that you wear the appropriate shoe for the activity you are doing. Walking shoes, running footwear and cross trainers have each been developed to provide optimal fit, cushioning, support, and performance for specific activities. Too many people make the mistake of trying to do everything in one pair of shoes. When participating in multiple sports and activities, it can be most beneficial to use a specific pair for each activity. *e.g. a pair of cross trainers for lifting weights at the gym and a separate pair of running shoes for jogging etc...* your feet and body will thank you for it. Many common sports injuries develop or worsen because people wear inappropriate or worn out footwear.

**\*Note** - If you are unsure whether your shoes are worn out or perhaps inappropriate for the activity you are doing, bring them in, and we would be delighted to take a look at them with you.

**About Walking shoes** - Walking shoes have been engineered to aid in forward propulsion while offering excellent heel cushioning. Their soles are usually much more curved or "*rockered*" than those of cross trainers which can reduce stress on the joints while walking. As a walking gait is much different than a running gait, walking shoes provide more targeted cushioning and support along the entire walking strike path of the foot. Walking shoes generally have thinner soles than running shoes and provide more forefoot flexibility than runners and cross-trainers necessary in the smooth heel to toe rolling motion of walking.

**Types of Walking shoes** – There are a few categories that athletic walking shoes generally fit into. These are:

- **Health** – These shoes are usually more casual looking in design with more leather and less mesh in the uppers. These are where your most supportive walking shoes are usually found.
- **Fitness** – These styles feature lighter weight uppers featuring more mesh and more streamlined soles. Engineered for a faster paced walker.
- **Country** – Country styles feature more aggressive outsoles with "earthy" toned, more durable leather uppers that are often water resistant.

**Levels of Support** – All categories of walking shoes offer varying levels of support. Depending on the additional support features added, they generally fall into these 3 groups:

- **Motion Control** – Shoes in this category feature broader based soles with maximum support features added to the midsole. They are designed for use by the moderate to severe overpronator. If the shoes are equally supported (posted) on the lateral and medial side of the shoe, a severe underpronator with a larger body frame may benefit from this design.
- **Stability** – Shoes in this category will feature moderate, support features with a more semi-curved sole. They are recommended for use by walkers who mildly to moderately overpronate.

### ***Levels of Support – continued...***

- **Cushioning** – These shoes provide maximum cushioning featuring midsoles without additional midsole support features. The soles are usually curved or semi-curved to encourage normal pronation. Cushioning shoes are recommended for those who underpronate / supinate.

***\* Note – Walking shoes as well as cross trainers have less pitch from heel to toe (they are flatter) with thinner soles, lacking the desired cushioning required for running. It is widely recommended that running specific footwear and not walking shoes or cross-trainers be used for running to help prevent possible injury.***

**About Running Shoes** – Running shoes have been engineered to provide maximum cushioning and support for people that specifically run longer distances. Featuring uppers made of very breathable mesh, running shoes are generally the lightest and coolest athletic footwear. When running, the body must absorb up to 3-5 times the weight of the body. For example, if a runner weighs 185 lbs., that body will have to absorb up to 925 lbs. of impact. Whatever impact your shoe cannot absorb is absorbed by your body. This is why correct running footwear that has been properly fit is so important. Running shoes have thicker soles and in particular, thicker heels and a greater pitch from heel to toe that aids in propelling the body forward. Running shoes offer more forefoot flexibility than most cross trainers and superior shock absorption at impact, important in preventing injury. As with any athletic shoe, your foot type, foot bio-mechanics as well as any pre-existing foot-health concerns play a major role in determining which shoe is right for you.

**Types of Running shoes** – There are numerous categories of running footwear, many of which are specific to track & racing. Canadian Footwear does not target these particular racing athletes. Our running footwear falls into 2 basic categories which are ***training*** and ***off-road***. This footwear addresses the needs of the average runner.

- **Trainers** – There are a multitude of running trainers available which are designed for daily training on streets or sidewalks as well as for use indoors. Each possesses varying levels of support and cushioning with unique features specific to the model. Canadian Footwear carries a wide selection of training styles that have been carefully chosen to ensure the needs of all our running customers can be met.

## *Types of running shoes – continued...*

- **Trail / Off Road** – These running shoe styles have unique features not found on most regular trainers. Abrasion and weather resistant uppers are the norm as is more aggressive outsoles that provide better traction on dirt, grass and loose gravel while providing protection to the bottom of the foot from rocky terrain.

**Levels of Support** – Running footwear is generally categorized into 3 different support levels. In addition to the level of support added to the footwear, particular fitting features are incorporated to address all the support and cushioning needs of a particular foot type. The 3 levels of support, similar to that of walking shoes are:

- **Motion Control** – Shoes in this category feature broader based soles with maximum support features added to the midsole. They are designed for use by the moderate to severe overpronator who requires more support and less cushioning. If the shoes are equally supported (posted) on the lateral and medial side of the shoe, a severe underpronator with a larger body frame may benefit from this design.
- **Stability / Supportive Cushioning**– Shoes in this category will feature moderate, medial support features will a more semi-curved sole. They are recommended for use by runners who mildly to moderately overpronate.
- **Neutral / Cushioning** – These shoes provide maximum cushioning featuring midsoles with no additional medial support features. The soles are usually curved or semi-curved to encourage normal pronation. They are recommended to those who underpronate / supinate.

**About Cross-Trainers** – Cross-trainers are generally described as “multi purpose” footwear that is effective for a variety of multi-directional activities. While this is true, it is important to note that each style engineered offers varying levels of stability, support and cushioning making some styles more effective for specific activities. For example, some cross-trainers are built on more of a “rockered” running shoe style platform with lighter upper materials and increased cushioning that allows the user to incorporate some running into their workout. Others are built with flatter more rigid soles that provide a broader base of support and increased stability while lifting weights in the gym. There are several things to consider when choosing your cross-trainer:

- **Level of Activity** - If you are doing more than one activity 3 or more times a week, then you should have a pair of shoes specifically for that activity. For example...if you run 3 times a week and play tennis twice a week you would benefit from having a pair shoes for running and a separate pair for playing tennis.
- **Sole Material and Tread Depth** – Softer “gummier” soles provide better traction on wood floors (for squash, racquetball etc...) Harder, carbon rubber soles provide greater durability on concrete or asphalt. Smooth tread patterns provide better grip on smooth surfaces as they provide more surface contact while larger, deeper lugs provide better traction on grass and uneven surfaces.
- **Flat or Rockered design** - Broader based soles that are flat provide more lateral stability as they provide maximum contact with the ground. “Rockered” or curved sole designs are more efficient for forward activities involving more running.
- **Cushioning** – The amount and placement of cushioning in the shoe will vary depending on what activities the cross-trainer was intended for. For example...many cross-trainers place additional cushioning in the forefoot area as many sports require the participant to more constantly be on the balls of their feet. (e.g. tennis)
- **Support and Stability** – Cross-trainers offer varying levels of support and stability. For example, cross-trainers for those with over-pronated feet possess similar additional support features to those seen on walking and running shoes. Always consider your foot type, bio-mechanics as well as your overall frame size when choosing the appropriate shoe.

## Running / Athletic Shoe Terminology

**The Gait Cycle** - The natural motion of your foot while running or walking is called the Gait Cycle. The gait cycle of each leg is divided into the **Stance Phase** and the **Swing Phase**. The stance phase is the period of time during which the foot is in contact with the ground. The swing phase is the period of time in which the foot is off the ground and swinging forward. In walking, the stance phase comprises about 60% of the gait cycle and the swing phase about 40%. As the speed of walking or running increases, so does the proportion between swing and stance phase. As the walking or running speed is increased, the percentage of time spent in the stance phase decreases. Increased time is then spent in the swing phase and there is an increase in the importance of swing phase muscles.

Note \* When running, there is an added sub-phase called "**float phase.**" During float phase, neither foot is on the ground.

**About Stance Phase** – When running, only about 40% of the complete gait cycle is spent in stance phase where in walking it is closer to 60%. The stance phase can further be subdivided into three segments. The first segment of the stance phase is **contact**. This phase begins when the heel hits the ground. This phase is completed when the remainder of the foot touches the ground... The next portion of the stance phase is called midstance. **Midstance** phase begins when the entire foot has contacted the ground. The body weight is passing over the foot as the leg and the rest of the body are moving forward. The opposite leg is off the ground and the foot, in this phase, is bearing body weight alone. It is undergoing a change from being a mobile adaptor to becoming a rigid lever in order to propel the body forward during the final portion of the stance phase - **Propulsion**. Propulsion begins after heel off and ends with toe off. This phase constitutes the final 35% of stance phase. The body is propelled forward during this phase as weight is shifted to the opposite foot as it makes ground contact. The swing phase begins immediately after toe off.

**About Swing Phase** - The first portion of the swing phase is the forward swing which occurs as the foot is being carried forward. The knee is flexed and the foot is pointed upwards towards the shin at this time. The next segment of the swing phase is foot descent as the foot is being positioned in preparation for weight bearing and the muscles are stabilizing the body to absorb the shock of heel contact. *At heel contact the swing phase ends and a new gait cycle begins.*

**Arch Type** - Everyone has one of three general arch types. These arch types and the biomechanics generally associated with these arch types play the most important role in determining which type of athletic footwear is most appropriate.

***The three general arch types are:***






***Flat***



***Medium***



***High***

-  **Flat** – Flat arches are usually quite flexible and require more support than they do cushioning. Persons with this foot type usually benefit from motion control footwear with broader soles and increased medial stability that are built on a straighter “last”.
-  **Medium / Normal** – These arches are generally more neutral but can sometimes require some additional stability. Persons with this foot type usually benefit from footwear with mild to moderate stability features added to the medial (inside) part of the midsole that are built on a semi-curved “last”.
-  **High** – High arches are usually more rigid and inflexible. This type of arch does not absorb shock well so footwear with maximum cushioning is recommended. Persons with this type of arch require shoes with no added “anti-pronation” support features and do well with “neutral” footwear that is built on a curved last that encourages natural foot pronation.

**Note** \* *Heavier individuals with high arches may do better with “motion control” footwear provided the lateral (outside) and medial (inside) support is equal. Some neutral cushioning shoes do not provide a broad enough base of support and are too soft to withstand the pounding that a heavy person subjects to their footwear.*

## About Pronation

Pronation is the normal inward rolling motion of the foot that is necessary to absorb shock forces and adjust to different terrain. Pronation begins as the heel strikes the ground. The foot then rolls inward adjusting to the terrain and absorbing shock forces and then transfers the body's weight to the ball of the foot in preparation for toe-off. Problems may occur when an individual **overpronates** or **underpronates**.



(Right foot)



***Overpronation***

***Underpronation***

**Overpronation** - 🦶🦶 While some degree of pronation is necessary, persons that experience an excessive inward roll of the foot require footwear with increased medial support and stability. Cushioning, while always important, is less of a concern with overpronators as their feet absorb a lot of impact. Overpronation is usually associated with "flat" feet. Plantar Fasciitis, knee and back pain as well as many other ailments are often the result of **or** further complicated by overpronation.

**Underpronation** - 🦶🦶 Also known as ***supination***, underpronation occurs when the foot does not sufficiently roll inward to adequately absorb shock. Usually seen with those with a higher arch type, underpronators require footwear with maximum cushioning. Underpronators are often subject to injuries including shin splints and inversion ankle sprains as their feet do not efficiently roll inward to cushion impact and adapt to uneven terrain.

## About “Lasts”

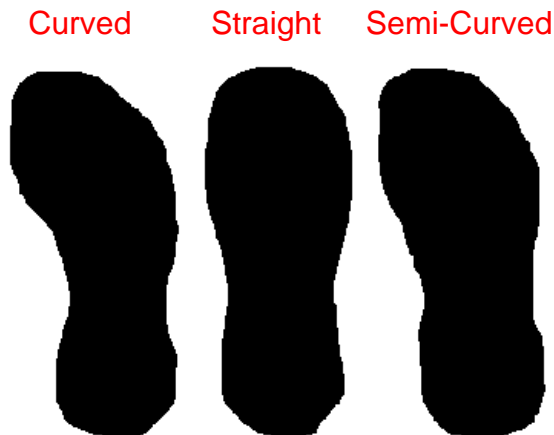
A “**Last**” is a solid 3-dimensional form around which a shoe is constructed. Different shoe manufacturer’s design their own unique lasts that differentiates the fit of their footwear from their competitors. Different sized and shaped lasts are used for each width and ½ size. Footwear brands dedicated to fit and comfort will also use many different last designs engineered to provide specific a specific fit for a specific type of foot and a specific purpose. This may mean that two size “8D” shoes from the same brand may not fit the same. Having a professional shoe fitter that understands the unique fit of each last is important to ensure you get the right footwear for you. The more lasts used in the manufacturing of footwear, the more costly the production. This is a significant reason why footwear from brands that offer broader size ranges as well as multiple width fittings sometimes cost more at retail than cheaper department store type footwear where fitting options are often much more limited.

Here are the **3 basic shapes of lasts**:

**Straight Last** – Where the shoe is constructed with little or no curve from heel to toe. Footwear constructed on this last design usually provides excellent support and motion control. This type of footwear is recommended for the moderate to severe overpronator.

**Curved Last** – The shoe will reflect a bent-line or curvature from heel to toe. Footwear constructed on this type of last promotes natural foot strike and normal pronation providing shock absorption. This type of footwear is recommended for those who underpronate.

**Semi- Curved Last** – Shoe last whose shape falls between a curved and straight last. Footwear constructed on this last is appropriate for the vast majority of people.



**Last Construction** - In addition to the shape of the last, the type of materials used in the construction of the footwear also plays a significant role in the overall support and flexibility of the footwear. There are several traditional types of last construction that are commonly used:

**Board Lasted** - Board-lasted shoes have a sturdy insole board running the entire length of the foot bed. This type of last construction provides the greatest stability and is recommended for the moderate to severe overpronator.

**Slip Lasted** - Slip-lasted shoes are constructed without an insole board. This type of light weight last construction provides the greatest possible flexibility and is recommended for the underpronator with a neutral foot.

**Combination Lasted** – Combination lasted shoes use slip lasting in the forefoot for enhanced flexibility and an insole board in the rearfoot to control excessive motion. Footwear constructed using this type of last is appropriate for most people.

**Strobel Lasted** – Strobel lasted shoes use a thin material acting like a sock liner stretched along its perimeter. The construction provides an excellent blend of stability and flexibility. This type of lasting is becoming more popular.