

## What shoe for your Sport?

It would be fair to say that people demand greater versatility from their athletic footwear than their sporting apparel. One would not expect to wear their netball skirt for horse riding, but yet this is being demanded of modern athletic footwear. If your schedule looks something like netball Monday, tennis Wednesday, aerobics Friday and golf Sunday &ndash; do not despair, but think carefully about what you are demanding of your footwear.

In a perfect world (or in the world of athletes), everyone would have a different pair of athletic shoes for each different activity they participate in, as the biomechanical demands of each activity vary significantly. For example, tennis places great emphasis on side-to-side movements, walking entails forward progression, while netball uses a combination of both as well as pivoting. The features of a shoe should not only fit the foot, but also the activity in which it will be used for.

With hundreds of athletic shoes available it is important that you choose the appropriate shoe for your feet and activity &ndash; this does not necessarily have to be the latest and greatest model chocked full of gimmicks, but most importantly, it should be appropriate for your foot type. The three main foot types you will hear people talking about are; the excessively pronated foot (flat foot); the neutral foot; and the excessively supinated foot (high arched foot). As the foot functions differently dynamically versus statically, a 'foot print' may not be a true indication of your foot type.

There are a few essential properties that need to be specifically designed for each type of foot.

The first is a midsole of the shoe: This predominantly determines the level of cushioning that a shoe can provide. Athletes with flat feet should use a midsole of dual density that is firm on the inner arch of the foot. Athletes with high arched feet require extra shock absorption and should choose a shoe with a soft midsole that still provides stability on the outer border of the foot. The most suitable midsole is imperative as pronation control and cushioning are still considered to be the key concepts of injury prevention.

The other feature that should be considered for specific foot types is the amount of curve in a shoe from heel to toe. Straight lasted shoes give more stability and support and are recommended for flat feet. A curved lasted shoe is suggested for high arched foot types. In-between these two types is a neutral lasted type shoe. This is for a foot that requires midfoot support, but not too much controlling support in the reafoot.

The features to look for in a shoe regardless of foot type are:

- &bull; A firm heel counter: (the area wrapping around at the back of the shoe),
- &bull; Forefoot flexibility, Curved last compared to a straight last
- &bull; A wide toe box and
- &bull; Breathe-ability.

A firm heel counter enhances rear foot stability, while forefoot flexibility allows for a natural toe-off phase of gait. The rigidity of the heel counter can be tested by squeezing the back of the shoe, while forefoot flexibility can be tested by simulating the natural walking step (i.e. place the shoe on a surface, grasp the rear of the shoe with one hand, lift the rear a couple of inches off the surface). Only minimal force is needed to simulate the step and the shoe should flex under the ball of the foot.

Breathe-ability cannot be ignored as sweaty moist environments can lead to blisters, irritation and general discomfort. Another point to consider is the fact that female feet are simply not scaled down versions of male feet, but rather different in a number of shape characteristics, hence gender specific shoes should be considered when available.

So, when selecting a shoe for a particular activity, please remember that you are not only fitting the shoe to your foot, but also to your activity. It has been shown that shoes tested in conditions for which they were not designed exhibited frictional characteristics that may have safety implications. Thus suggesting a cross trainer may very well be used for aerobics and netball, but would not be suitable for golf.

In summary, the essential points to remember when choosing an athletic shoe for exercise are:

- &bull; Standard features &ndash; firm heel counter, forefoot flexibility, wide toe box and breath-ability.
- &bull; Foot type dependant features &ndash; level of support and cushioning of midsole and the amount of curve.
- &bull; Playing surface of your particular activity and the movements involved.

Remember, if you are unsure about a shoe's suitability, whether it be appropriateness for your foot type or your sporting activity, your podiatrist may advise you.

For further information please contact Total Care Podiatry in Geelong