

Choosing footwear



Frequently in our practice, we find that so many problems can be resolved by simple adjustments to minor things, of which footwear is one. To think that a major athlete or even a casual sports person who takes their sport seriously does not allocate enough time and/or information gathering to arguably the most important sporting apparel of their career astounds us.

All sports have their technique specialities as well as their footwear requirements and it is essential to take this into consideration. Common to all, however, is the construction and function of the shoe. For example, we need the shoe to flip around the toe box only and not collapse or buckle along the arch area. A simple flex test of the shoe by holding it between two hands and lifting the heel of the shoe against the toe box will show this. If it bends in half (in the middle) it is not good.



In sports requiring the athlete to twist or turn the shoe will be required to hold its form and not twist as well. This is known as torsion and twisting the shoe between both hands should feel very firm and not turn easily.

Turn the shoe upside down and look at the sole (or last) of the shoe. There are generally three types of lasts:

- 1) **straight** for more flat/pronated foot type
- 2) **semi curved** for a neutral type foot
- 3) **curved** for a high arch or supinated foot type. (see diagrams below)



1: Severe Over pronation (flat foot)

A severe over-pronator is at risk of injury. These runners have poor shock attenuation and severely disrupted foot function. Muscle joint, tendon, ligament and bony overload may occur secondary to severe over-pronation. These athletes have very specific footwear requirements.

2: Over Pronation (medium arch)

If a runner pronates more than would be considered normal, the foot does not function as effectively, and may not achieve its roles as an efficient lever for forward propulsion. An over pronator may have issues in relation to the timing of muscle firing, and prolonged rotation of the leg to the foot.

3: Neutral (normal arch)

A neutral runner is one who is considered to have no bio-mechanical problems. The foot in this case is functionally normal, and the shoe will fulfil the roles of comfort, fit and traction.

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4: Under Pronation (high arch)

Foot pronation is a natural and normal motion, and helps to attenuate shock at heel contact. An underpronator sometimes called a **supinator**, has less-than normal amount of contact phase pronation, and therefore is subjected to increased shock transmission through the lower limbs.

The lace mechanism is also important and should not be only for cosmetics. The operation of the laces is to hold the foot stable inside the shoe and to be able to adjust for most types of widths.

These days shoe manufacturers are looking for an edge and generally use the laces in a myriad of ways. Simply, when lacing the shoe or boot there must always be a gap between the lips (where the eyelets are) of at least 2.5cm. This allows for further adjustment after stretching occurs from wear.



Common to all sports, the mouth of the shoes (the opening that allows the foot in) must not be too wide. The smaller the better as it allows for the athlete to have the shoe hold the feet in, rather than the feet hold the shoe on and consequently causing fatigue/blistering or bruising of the foot, or may even cause lower limb problems.

Now, more specifically, Wakefield Sports Clinic Podiatrists advise footballers, soccer and rugby union and league players to have at least three pairs of shoes at their disposal: one pair for running as in sneaker type; one pair of boots that have a moulded sole, for pre-season as grounds are harder and these shoes offer a softer feel to the foot; and finally one pair for the season proper, a more "screw in" type of boot that will suit a softer ground.

Make sure you remove the inner lining of the boot and take a look inside. This will reveal any studs/screws that may be in a position that could create problems to your feet. The Asics boot seems to be the best in this category but everyone is an individual and I would suggest that everyone tries different shoes!

For basketball, netball, tennis and other court sports, most shoes are now not required to cover the ankles as today strapping is used with better effect. So long as there is enough depth to accommodate the feet and/or device such as orthotics without the feeling of lifting out will suffice. It is crucial in a sport like netball, when planting of the foot and sudden stopping (inertia) is common, that the shoe fits the foot well.

For running a lighter shoe that is flexible in the toe box and that has a good cushioning undersole is important. A good heel counter is also important to prevent the shoe from collapsing on initial impact with the ground. Above all before you embark on your sporting jaunt, it is a must to see your podiatrist especially at the beginning of the season, in order to address any problems including skin lesions, shoe advice and bio-mechanics (which is another article on its own) so you can *put your best foot forward*.



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