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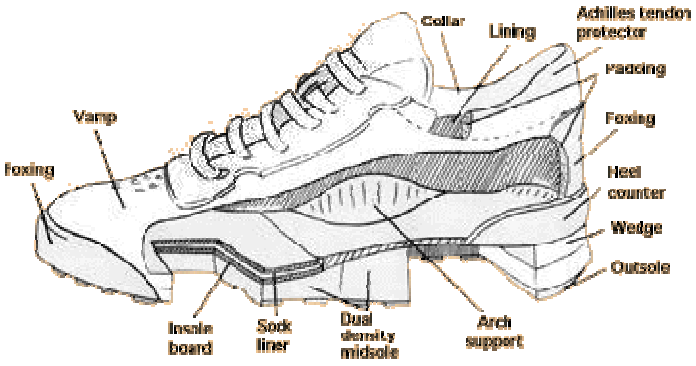
revitalise — bounce — be healthy

Selecting a suitable Running Shoe

Running is both a very popular competitive sport in its own right and a fitness activity used at all levels, from recreational gym routines to elite sports training programs. But running requires the body to absorb continuous repeated impact forces, and running-related injuries are a common presentation at our physiotherapy practice.
Thus, before entering into a running program you should ensure you have the correct footwear.



Determine your foot type to achieve overall footwear comfort

Your foot type is determined by your:

- Foot width: broad, normal or narrow
- Arch shape: High, normal or flat
- Foot length in cm

Ensure that the base of the inside of the shoe fits the base of your foot. Also ensure that you have a thumbnail's length of space from the end of your large toe to the shoe's edge.

Get to know your running technique

There are three categories to describe the way in which you make contact with the ground while running:

- Forefoot striker- You contact the ground with the balls of your feet first
- Midfoot striker- Your entire foot contacts the ground at once
- Heel striker (Majority of runners are heel strikers)- Your heel makes contact with the ground first

Get acquainted to the mechanics of your foot after it contacts the ground

You are an:

- Under pronator if your foot rolls outwards
- Over pronator if your ankle rolls inwards
- Over pronator with splayed feet if your ankle rolls inwards and your feet turn outwards.

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In conjunction with each foot strike pattern there is a certain degree of rolling inwards or outwards of the ankle, as well as some inward or outward twisting of the foot.

For example, if you are a **heel striker**, you can benefit from a sharper angle on the rear outsole of the shoe decreasing the amount of stress forced through the leg and reducing the predisposition of lower limb injuries.
In regards to stability and cushioning, the most recent technologies include spongy foam and silicone based compounds that absorb shock, improve shoe durability and enhance rebound energy. **Look for silicone-based compounds with high resiliency as they are the most effective for rebound energy minimizing energy expenditure and improving overall running performance.**

In regards to your foot mechanics, excessive rigidity through the middle of a shoe can directly impact on the way it will tend to function. If you are an overpronator, you will have the tendency to apply additional pressure to the shoe from around the rear arch position of the foot.
If that is the case, you should select shoes with effective stabilizing components such as higher density foam compounds to accommodate for the additional pressure being applied to this area of the shoe. These are usually grey in colour.

Thermoplastic devices are another effective stabilizing component. These components are molded and, depending on the shoe's specific function, are usually positioned under the midfoot area. They enhance responsiveness and the correct position prior to foot take off. For those who are forefoot and midfoot strikers, the thermoplastic device should not be too hard, or positioned too far forward, of the shoe. Most of you who abide by this running style will require functional flexibility in the forefoot of the shoe, not rigidity. Excessive rigidity in the forefoot of a running shoe can restrict efficient foot mechanics during propulsion, which can affect the overall responsiveness.

Unsuitable running footwear may impact on running biomechanics and cause injuries. **Note that if the running shoe you purchased is not comfortable, then it's likely it is not suitable for your foot and will therefore not function effectively during running**.
To evaluate your running technique, the most effective approach is through a biomechanical assessment which involves a needs analysis, anatomical marking, videography, running technique analysis, footwear analysis and technique modification. Consult your physiotherapist for further information.

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