

## Health & Fitness Tips

### Shoes - If the Shoe Fits

When it comes to running, your shoes are the single most important piece of equipment. Other than being uncomfortable, ill-fitting and unsuitable running shoes can cause injuries.

To ensure you select the correct running shoes, you will first have to determine what kind of foot you have. To do that, talk with a podiatrist, physiotherapist or a sports footwear retailer who is well informed of the various foot types.

The function of a running shoe is to protect the foot from external and impact injury, offer support and stability to the foot and to ensure optimum anatomical alignment where needed. With this in mind, the type of running shoe that you wear can play a key role in the prevention of lower limb, foot and back injury and to assist performance.

#### Foot basics

In order to transfer force and reduce stress on joints of the foot and lower limb, running mechanics have the foot roll in as it hits the ground. The amount of rolling is termed pronation.

An excessive, rapid or prolonged amount of pronation is known as over-pronation and has the potential to cause knee, shin, ankle and Achilles tendon problems as does a lack of sufficient pronation; often called supination or under-pronation.

Overpronation can be seen demonstrated by excess wear on the outside of a shoe.

#### Rear foot stability

Running shoes require more rear-foot stability due to the "heel first" impact and have a raised heel. This elevated heel position allows for more shock absorption and to assist in forward projection of gait.

As running is a linear action, stability becomes less important than impact support at contact and mid-stance phase of gait.

#### Normal arches

If you have normal arches and your foot motion is normal, the selection of shoes is a little more simple, as you may choose from many styles.

It is, however, important that you select shoes that are supportive and stable but also offer a good blend of cushioning, medial support and durability. They often have a semi-curved shape and don't control foot motion as strictly as motion-control shoes.

#### Low arches (flat feet)

If you have low arches or flat feet, you may be an over-pronator, meaning your foot rolls too far inward and often too quickly when you run.

This can cause injuries so it is important to select shoes that offer superior motion control and foot stability.

These often have firm mid-soles with different control features that reduce the degree and velocity of pronation, hence giving the foot greater stability. They are, however, often heavier and more expensive than some other styles of running shoes.

#### High arches

If you have a high arch, your foot may be supinated or underpronated, meaning it doesn't roll inward far enough, therefore reducing the foot ability to absorb shock and adjust to different ground surfaces.

It is recommended that you should keep away from both stability and motion control shoes and select a shoe with plenty of cushioning.

Cushioned shoes assist your feet to roll inward (absorbing shock), have a curved shape to encourage foot motion and have the softest mid-sole with the least medial support features.

#### Characteristics of a correct runner

Once your foot type and degree of pronation is determined, one other important characteristic you'll need to look for is shoe shape.



A 'last' is the base of a shoe and helps to determine shoe shape. With this in mind, you can see the shape most clearly by looking at the bottom of the shoe.

Typically, runners come in three shapes (straight, semi-curved and curved) which correspond to the three foot types.

Most experts believe that:

- Over-pronators need a runner with a straight shape
- Under-pronators need a runner with a curved shape
- Normal/neutral pronators need a runner with a semi-curved shape.

Buying your running shoe

It still pays to go to a specialty running store (at least for your first running shoe purchase).

When buying a running shoe:

- Replace your shoes frequently. For running, use 600-800 km as a rough guide (If you are running 20km a week you should look at changing shoes every 30-35 weeks).
- Shop in the late afternoon as your feet are larger at the end of the day from walking, standing etc. This can give you an indication as to how much your feet swell during exercise.
- Bring your old shoes with you. Shoe wear will assist in determining any abnormal wear patterns.
- Wear or buy the socks you'll wear when you run.
- If orthotics are worn, bring them with you to ensure that they fit comfortably into the shoe.
- Buy a runner that is appropriate for your foot type and training intensity, not for cosmetics, celebrity endorsement, or cost.
- Be aware than sizing between companies is usually slightly different. Therefore always have a salesperson measure your feet. Make sure the salesperson measures both of your feet, as one is often slightly larger than the other. You should be fitted for the larger foot and always try both shoes on.
- If the shoes don't feel good in the shop, don't buy them. Runners do not need to be "broken in" to be comfortable (see fitting).
- "Test-drive" them in the shop. Some shops have a treadmill.

### **Tell the salesperson**

For the shoe specialist to advise you correctly of model type, inform them of:

- How long you have been walking or running
- How many kilometres you walk or run per week
- Any foot problems you have
- Where you do most of your walking or running ie. concrete paths, cross country
- Your weight.

Ensure your runner fits properly A proper fit is THE most important step in finding the right runner. A shoe that fits will be snug but not tight. Following these guidelines will ensure a proper fit:

- Make sure there is about a thumbs width from the front of the shoe to the end of your longest toe.
- Allow for enough room at the widest part of your foot without letting the foot slide around.
- The heel of your foot should fit snugly against the back of the shoe without sliding up or down as you walk or run.
- The shoe upper must fit snugly and securely without irritating or pressing too tightly on any part of the foot. Caring for your runner Wear running shoes only for running.
- Wearing running shoes for daily wear or playing other sports can break down the motion control and cushioning of your shoes.
- Do not kick off your shoes without untying them. This will destroy the heel counter.

- Avoid running in wet shoes. A wet mid-sole has 40 per cent to 50 per cent less shock absorbing capability.
- Do not wash runners in the washing machine. This will deform their shape.
- Exposure to excessive heat will degrade the components of the shoe. Don't put them in the clothes dryer. Let them dry naturally after exposure to water.