

RUNNING CORRECTLY

By Simon Burley Physiotherapist

Most of us who run/jog regularly invest in expensive running shoes, however, we give little thought to the technique of running. We tend to run in the established pattern that we developed as a 7 - 9 year old and changed only a little from there. Usually for the worse if we're not stretching the appropriate musculature. That is unless we decide to become competitive and want to go faster or if we are injured.

The best way to improve your running technique is to see a track coach, otherwise take note of the following.

There are four major components to evaluate in your running pattern if you want to be a better runner and/or avoid injury.

Each of these can be easily evaluated by being videotaped front/back on and from the side and then watching the video in slow motion and freeze frame.

1) **Stride Angle**

Stride angle is quite different from stride length. It is the angle between the thighs when you are at full stride. Using freeze frame you can measure this. For a recreational runner it should be about 90 degrees and about 100 degrees for a competitive runner. A physiotherapist who understands running biomechanics can teach you the appropriate stretches to improve your stride angle.

2) **Overstride.**

A problem for runners can be reaching out too far in front with the feet. This actually breaks forward motion, increasing shock through the legs. Good runners actually land with the lower leg vertical, just a little bit ahead of the centre of gravity (at the naval).

To avoid overstriding think of running by lifting your knee's up in front rather than reaching out with your feet. Also avoid too much downhill or altering your style to keep up with taller or faster runners.

3) **Bounce.**

The head should not bob up and down when running but remain relatively level. If you do bounce then you're increasing impact and the chance of injury. You are also wasting

your energy propelling yourself upwards rather than mainly forwards.

Often poor stride length can lead to excessive bounce as compensation. Actually what should be done is the appropriate stretches to increase stride length.

4) **Cross-Over:**

Efficient runners run as if their feet are following separate, parallel lines. Crossover occurs when one or both feet cross-over to the midline or further.

This can be the result of:

- i) Muscular imbalances of the trunk or hips which would need correcting through stretching / strengthening programs,
- ii) Leg-length discrepancies
- iii) Foot biomechanical abnormalities.

Cross-over can often be noticed by a compensatory abnormal arm swing. For instance, if the right leg is crossing over the midline the left arm will excessively swing across to compensate the body torque.

The reverse can also occur where upper trunk and shoulder inflexibility on one side can result in lower limb cross-over.

Cross-over is one of the major causes of runners injuries. If noticed professional evaluation for muscular imbalances is recommended.

Video analysis is offered at the Maroochydore Physiotherapy Centre 5479 1777 and the Buderim Physiotherapy Centre 5476 9068