



SPEED

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TRANSITION

It's that time of the year when most sprinters are increasing their speed work and consequently there is a higher risk to injuries, and in particular the hamstrings. I have often quoted the 60:100 balance of strength between hams and quads, which was a hangover from when I coached middle and long distance runners. I have recently read, and it makes sense, that as the event gets faster, the ratio should come nearer to par. With this in mind we were recently doing the Nordic curl when one or two athletes complained of pain in the adductors, which tends to indicate a weakness and worthy of addressing.

EMS (Electronic Muscle Stimulus)

This is not for everyone, and could be expensive, but it not only acts as a local massage/muscle recovery treatment it also stimulates muscle fibres that may not otherwise benefit from 'normal' exercise, including weight lifting, resulting in a greater proportion of muscle recruitment and a subsequent improvement in strength and the potential for greater speed. Some physiotherapists believe EMS can be used after two hours post injury, whilst others believe there should be a 24hr delay during which time RICE can have a chance to be effective. It would also give a chance for any stresses to show up, in which case the use of EMS is not such a good idea.

A warm up routine you may not have tried



Place cones or markers about 10-15 metres apart. Jog to #1 and touch the ground in front of the toes; jog to #2 and repeat but stretching as far forward as possible; jog to #3 and touch the ground at the side of the ankles; then repeat at #4 but with the feet wider apart. This principle can be used for a whole variety of exercises; it just makes a change.

GLUTES AND QUADS

Take the stance shown with the quad parallel to the ground and hold for 2 seconds before smartly changing legs while advancing by one short stride to hold again. Continue for as long as possible and feel the pain!



STARTING WARM UPS

- 1) Jump up, land in a crouch position and start
- 2) In a crouch stat position, perform a clap press up and run
- 3) Bullet train. Jog, rapid one knee lift, jog, then the other knee
- 4) Double bound with arms reaching upwards, to land with lead leg forward and immediately run a few strides before repeating
- 5) In the crouch position, jump the legs rapidly 3 times and start.



SLEEP – abbreviated from an article in the Performance section of Athletics Weekly

A survey of the effects of sleep on performance showed that 8 hours was necessary (9 hrs for students under 20) in order to perform at an optimum level.; less than this has a detrimental effect on alertness, absorption of information, athletic performance, and increases the risk of injuries and the likelihood of catching illnesses. Furthermore, use of electronic devices within an hour of going to bed stimulated the brain and delayed the time of actually going to sleep. If this applies to you, try it for two weeks to judge the results.

THE IMMUNE SYSTEM

As you can imagine, this protects the body from illness through the number of white blood cells in the system, (commonly between 3.5 and 10.8), but it goes further than that, a low count is also an indicator of tiredness, lethargy and reduced athletic performance. Without a blood test you can take immediate steps to counteract these symptoms by increasing your intake of fruit and veg, not forgetting that darker skins generally indicate higher levels of benefit, eg broccoli,

TRAINING POSSIBILITIES IN SPEED ENDURANCE

1. Fast work over 150-300m to mirror competition speed, working on 2 reps until prior to the major competitions when reducing it to 1 rep.
2. 2x50 strides; 2-4 relaxed starts; 6-8 x 30 fast starts; 2x60 block starts, 2(4x60) high speed runs with walk back recovery – keep it smooth but not flat out.
3. 2-3 x 200 followed by weight training

HAMSTRING

In the semi final of the IAAF world indoors the BBC commentator said of Dina Asha Smith 'if only she could get her hips up over her (driving) leg she will be able to go a bit quicker'. When it came to the final, Dina was absent from the line up, apparently with a hamstring twinge.

The primary purpose of the hamstring is to straighten the knee, whilst its secondary function is to hinge the leg along with the glutes, hence it is necessary to carry out separate hamstring exercises to pinpoint the short head and the long head.

Weak abs tend to produce a backward lean which moves the COG behind the upright leg, high knee drills, leg/hip swings, upward bounds, down-force created by quads, the gastroc and soleus muscles.

Incidentally, one of the major reasons some athletes can run faster than others despite doing similar training, is due to the anchor point of the hamstring muscles. Next month I shall copy in a paper on this very subject.

