



London Marathon 2010

It seems like yesterday London runners tied their laces to compete in the 2009 London Marathon. With just four weeks to go before this year's London Marathon we thought it might be helpful to (i) explain some of the common problems experienced by runners, (ii) characterise a "niggle" versus a possible "injury", (iii) give you some general "runners" tips, and (iv) set out some exercises to help keep you injury-free between now and the big day.

What are some of the common problems experienced by runners?

Some examples of common problems experienced by some runners include:

- Ilio-tibial band friction syndrome (ITBFS): pain is usually felt on the outside of the knee, especially as the knee moves to and from knee extension. This is usually associated with tightness in the gluteal (buttock), quadriceps (front of thigh) and adjacent muscle groups, and delayed or reduced activation patterns in gluteal and inner quadriceps muscles.
- Calf strains and/ or Achilles tendonitis (inflammation of the Achilles tendon): may be caused by tightness and/ or recruitment problems in the calf muscles, and also muscles of the feet, thighs, buttocks and spine.
- Plantar Fasciitis: Tightness of the fascia (white connective tissue) and muscles within the feet and leg

can cause pain under the foot (commonly just forward of the heel, but this can be anywhere along the underside of the foot).

- Low back pain: When associated with running, low back pain is often associated with extension and/ or rotation through the lumbar segments. Stiffness in your upper back, hip and lower back may all contribute to your lower back doing 'a bit more than its share' of extension and rotation.

Do I have an injury?

It is important to recognise that not every niggle is an injury. Some niggles are natural as your body adapts to meet the new demands placed upon it. It is also important to remember that all people are of different shapes, sizes and alignments, and different things work for different people. Some people have never had a day of pain in their lives even though they have flat feet, carry a bit more weight, shuffle more than run etc. There is hope for us all!

However (i) pain that lasts or even increases during runs, **or** (ii) does not disappear between training sessions, **or** (iii) is starkly different to usual muscle soreness following exercise. If you have any of these, or you have any doubts, it is best to see your Chartered (State Registered) Physiotherapist to assist you in correcting the problem.

Handy tip 1:

Build up gradually.

- Not every single run needs to be longer or harder than the preceding one.
- Allow your body time to adapt following a longer run before you increase the distance further.

Handy tip 2:

Monitor your shoes...

- Rotating two pairs of training shoes can reduce the stress on your feet and legs.
- Also check your shoes for signs of wear more on one side than another, as this may provide a clue if you are experiencing problems.
- Good heel support and a shoe that shares the bend and twist throughout the forefoot and midfoot (rather than just at one point).

Handy tip 3:

Be flexible with your training program

- A flexible program within a structured framework allows you to deal with the normal 'juggle' of daily life, ill health etc; Unlike a strictly rigid program, this is more realistic.
- Pick out the 'target runs' in your program (ie, these might be your 10 mile run, half marathon race, 15 mile, 16 mile, 18 mile and two twenty mile runs). These are the ones that the runs in between are building you to do well in. Not every run is 'make or break'.
- Flexibility allows you to adapt your program according to how your body feels. Rather than running 20 miles on a sore leg or when you're very run down, re-tailoring your fortnight can help you stay fit and healthy.

What are some of the exercises I can do to keep myself injury free?

Below are a series of exercises which we believe are useful in helping prevent and manage common problems experienced by runners. These exercises are not intended to be an exhaustive list, and may well be complemented by additional dynamic exercises to address specific issues. If you have any concerns, consult your Chartered Physiotherapist.

Hip flexor stretches

- stretches the muscles at the front of the hip
- hold for at least 30 secs, doing three repetitions each side
- a cushion under the knee might be more comfortable
- **watchpoint:** avoid extending of the lumbar spine, in order to localise the stretch to the front of the hip.



Spinal and hip rotation

- dynamic mobility exercise; useful for spinal, lower limb, pectoral and upper limb mobility and control
- initiate the hip and spinal roll (from the start position) with the knees; the head simultaneously rolls the other way
- initiate the roll back to the start position from the abdominals
- Do 10 repetitions each way
- **watchpoints:** keep feet stacked; avoid overarching of the spine (keep the lower spine gentle tucked under)



Start position

Dynamic calf lengthening and strengthening (on a step)

- hold the lowered heel position for 2 seconds, and go onto the toes between repetitions
- Do 10 repetitions each side
- Gentle fingertip support on a wall is okay
- **watchpoints:** ensure feet are facing forward, not turned out to one side; if you are suffering from calf cramps or a suspected tear, this exercise may need to be done more gently (or may be inappropriate) at this stage. Consult your Chartered Physiotherapist for advice.



Lowering one heel



Onto toes

Toe flexor and plantar fascia stretches

- place your big toe on the heel of the foot in front - bring the knee over the foot
- stretches under the foot and calf 30 secs hold, 3 repetitions each side
- **watchpoint:** as per the above exercise



Gluteal (buttock) stretches

- pull your knee across your body
- 30 secs holds, 3 repetitions each side
- aim for different angles for each stretch, to stretch different regions of the buttocks
- isolate the gluteals by keeping the pelvis symmetrical on the mat; for variation: in order to allow some stretching of the lower back as well, allow some rotation of the spine (allow the pelvis to roll, unlike the initial exercise)



Spiky ball releases on gluteals (buttocks) and quadriceps, ITB (front and side of thighs)

- this loosens focal areas of increased tension in these muscles, which are often associated with knee, hip or lower leg discomfort
- cover all regions of the buttock muscles, and the front as well as the side of the thighs (all the way from the hip to the knee)



Article by **John Nugus**
B. Physiotherapy MCSP,
MHPC, MSc (Pain)
MIASP. Certified Pilates
Instructor.