



RUNNING STRENGTH AND CONDITIONING FOR INJURY PREVENTION

Running is becoming an increasingly popular sport, both recreationally and competitively. This is due to the many known health benefits, as well as the ease of access to running.

Injuries can affect runners of all abilities, whether you are experienced and pushing for a new PB, or a beginner where the body is not used to the additional demands.

Strength and conditioning is becoming a key part of running training for injury prevention and exercise performance. A review of the literature by Lauersen et al. (2013) found that 'strength training reduced sports injuries to less than a third and overuse injuries could be almost halved'. Yamamoto et al. (2008) found a 4.6% (range 3-8.1%) improvement in running economy, and 2.9% improved running performance (over 3k and 5k), in their systematic review.

Calf Raises

Stand with your feet together, raise up onto your tip toes, slowly lower back to the ground. Repeat 10 times.



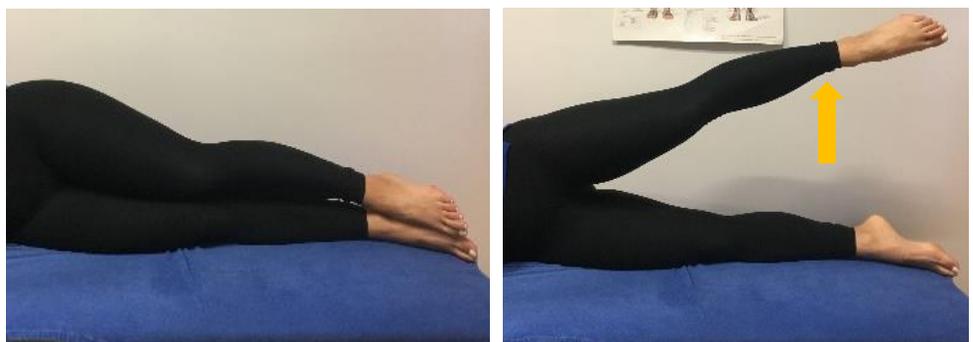
Step-Up

Stand at the step, place one foot up on to the step, lift yourself up then lower slowly. Repeat with other foot leading. Repeat 10 times.



Side Lying Hip Abduction

Lay on your side with your legs straight, slowly lift as far as comfortable, then slowly lower back to the bed. Repeat 10 times.



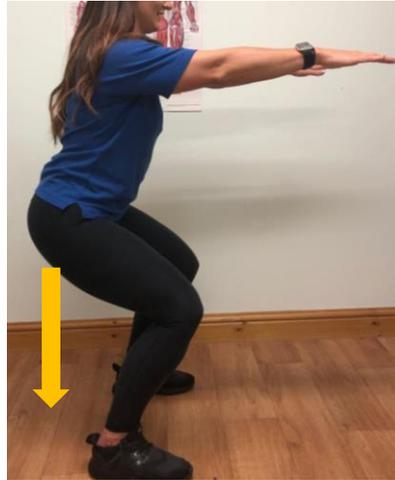
Crab Walk

Tie resistance band around your knees, slightly squat down, side step stretching the band then return legs together. You can make this exercise harder by moving the band lower down your legs towards your ankles. Perform 5 sets.



Squats

Start in a standing position with feet hip distance apart, slowly bend your knees whilst pushing your buttocks out backwards (as if you are about to sit down) until you reach a comfortable limit, then stand back up slowly. Repeat 10 times.



8 LAWS OF INJURY PREVENTION FOR RUNNERS

1. Know your limits. Every runner has an injury threshold.
2. Be the tortoise, not the hare. Increase your distances gradually.
3. Listen to your body. At the first sign of an atypical pain (discomfort that worsens during a run or causes you to alter your gait), take three days off.
4. Consider shortening your stride. The number of foot strikes or repetitions trumps having a longer stride because it reduces your impact load. Studies have shown that runners who shorten their stride by 10 percent could reduce risk of tibial stress fracture by three to six percent.
5. Run on a level surface. If you're increasing your mileage, feel an injury coming on, or are returning from injury, try to do some of your training runs on a level surface.
6. Don't race or do speedwork too often. Recognise that races take a heavy toll, so give yourself plenty of recovery time (one day for each mile raced).
7. Stretch and strengthen your body, in particular the backs of your legs and core. Knee and Achilles problems are among runners' most frequent complaints, and so experts recommend increasing the range of motion and strength of your muscles. You don't want to train for bulging muscles. You need just enough core, hip, and lower-leg strength training to keep your pelvis and lower-limb joints properly positioned.
8. Get shoes that fit you and your biomechanical needs. The correct trainers will not cure an injury, but may help prevent them in the future.



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