

Long-Distance Running

FOCUS ON SPORT

Long-Distance Running Program: Preventing Injuries and Increasing Performance through Strength Training.

If you look at a prototypical long distance runner you notice muscles – this is because these individuals usually have less than 10% body fat. They won't have big muscles but lean, sinewy muscles that are designed to be efficient over hours of constant contractions. This is a concept that recently became more evident when one of our MedStrength trainers undertook the challenge of running a marathon. It soon became apparent that he was carrying the wrong kind of muscle bulk and would need to change the way he strength trained; in training for running, instead of lifting very heavy loads for few repetitions, the focus is on higher repetitions (12-15 reps) with lighter resistance. This method switches the emphasis on developing the slow-twitch muscle fibres over the fast-twitch fibres for a more fatigue-resistant strength.

A common misconception is that strength training is unnecessary for long-distance running. This is untrue, especially for those with muscular imbalances or previous injuries. Although getting outside and running is likely the most important part of running longer distances over shorter periods of time, if you have any weaknesses they will rear their ugly head as you start building up the miles. This is where strength training comes in.

For starters, a solid foundation is important. Undergoing a muscle balance assessment with our team of physiotherapists is a good way to pinpoint any deficiencies and potential injuries, if you're not already aware of them. Once you have worked any issues, training all the major muscles of the body to develop overall strength should be a primary goal. This is easily accomplished using the MedX machines on our MedStrength training circuit.

Once you have built general strength then you can focus on exercises that are more specific to running. This means using the muscles of the lower limbs and performing exercises in standing to continue to develop this functional position.

Muscles important in running include all the major muscles of the lower limbs and those of the core. Quadriceps control knee bends (through extension), while Gluteus Maximus and Hamstrings control hip bends (through flexion). The muscles that control hip stability are also extremely important and are often neglected. These include the abductor and adductor groups. The core muscles are used to maintain proper posture needed to keep the proper running position.

Warm-up:

Set up a circle of cones.

30 sec each of the following around the cones:

walking
walking with knees up
walking
jogging
walking
running
sprinting
walking
running with knees up
walking

Beginner to Moderate Strength-training Circuit:

TARGET: Hamstrings, gluts, core, back, shoulders

PURPOSE: Uses nearly every muscle, induces high heart rate and builds flexibility, endurance and strength

Dumbbell Swings:

Hold a dumbbell with both hands, arms straight with a wide stance. With back straight and a slight bend in knees, press hips back and swing the dumbbell between legs and behind hips. Stand up and use hips to drive dumbbell forward and swing the weight over your head. Repeat 10 -15 times.

Skipping Ropes:

3 mins skipping. Aim for at least 15 jumps in a row.

Lunges:

Forward and side lunges: 10 lunges of each type on each leg.

Step ups :

Holding 8 kg dumbbells perform step ups on the box forwards and backwards for 6 mins, allowing yourself 1 min rest every 2 mins.

TARGET: Abdominals

PURPOSE: Challenges abdominals through a full range of motion

Butterfly Sit-Ups

Sit on the floor, knees bent with soles of feet together and toes touching wall. Place a folded towel on the floor behind you, positioned under your lumbar spine when you lie back. Extend arms straight so fingertips touch the wall and, keeping your back straight, lie back until your shoulder blades touch the ground. Sit back up immediately and touch your fingertips to the wall. Repeat 10 - 20 times.

Moderate to Advanced Strength Training Circuit:

Choose 2-4 exercises from the below categories and perform each exercise to the point of fatigue, in proper form, for one set per circuit. For example, one set of Wall Balls followed by Planks, Push Ups, and Travelling Lunges. Repeat this circuit 2-4 times making sure to complete all exercises in a manner that allows form failure in 12-15 reps. To adjust the program for difficulty add one of the exercises from category 5 (plyometrics) to your circuits. Plyometrics are functionally the closest form of strength training to running and are a key component in the final stages of a comprehensive program. Another way to increase difficulty and to add variety is to switch between the exercises as you complete each circuit.

Category One- Full Body:

Squat to O/H Press, Wall Balls, Squat to O/H Press on Bosu, Wall Balls on Bosu

Category Two- Lower Body:

Travelling Lunges with Medicine ball twists, Body weight squat, Swiss Ball squat with DBs, Stationary lunges with DBs.

Category Three- Upper Body:

Push Ups, TRX Rows, DB Bench press, DB incline Press

Category Four- Core:

Planks, Side Planks, Reformer curl ups, Swiss Ball Jack Knives.

Category Five- Plyometrics:

Box Jumps, Split Jumps, Single leg hops, Skipping rope.