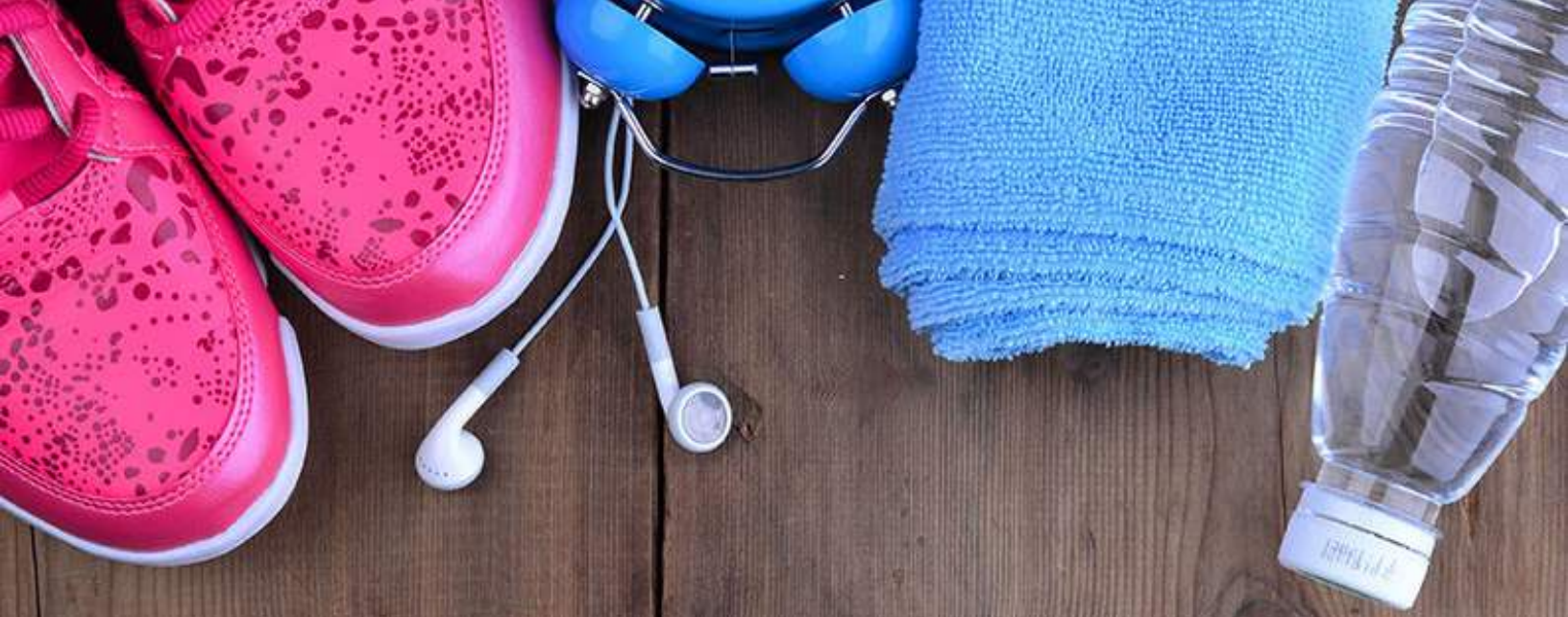


PreFormance® Benchmarking & Supplementary Strength Guide for Runners

Phil Roberton

Introduction

This guide is here for you, to help ensure that your approach is set up in a way that will allow you to make the most possible progress in the least possible time, without wasting any effort on things which won't actually help you.

Demands

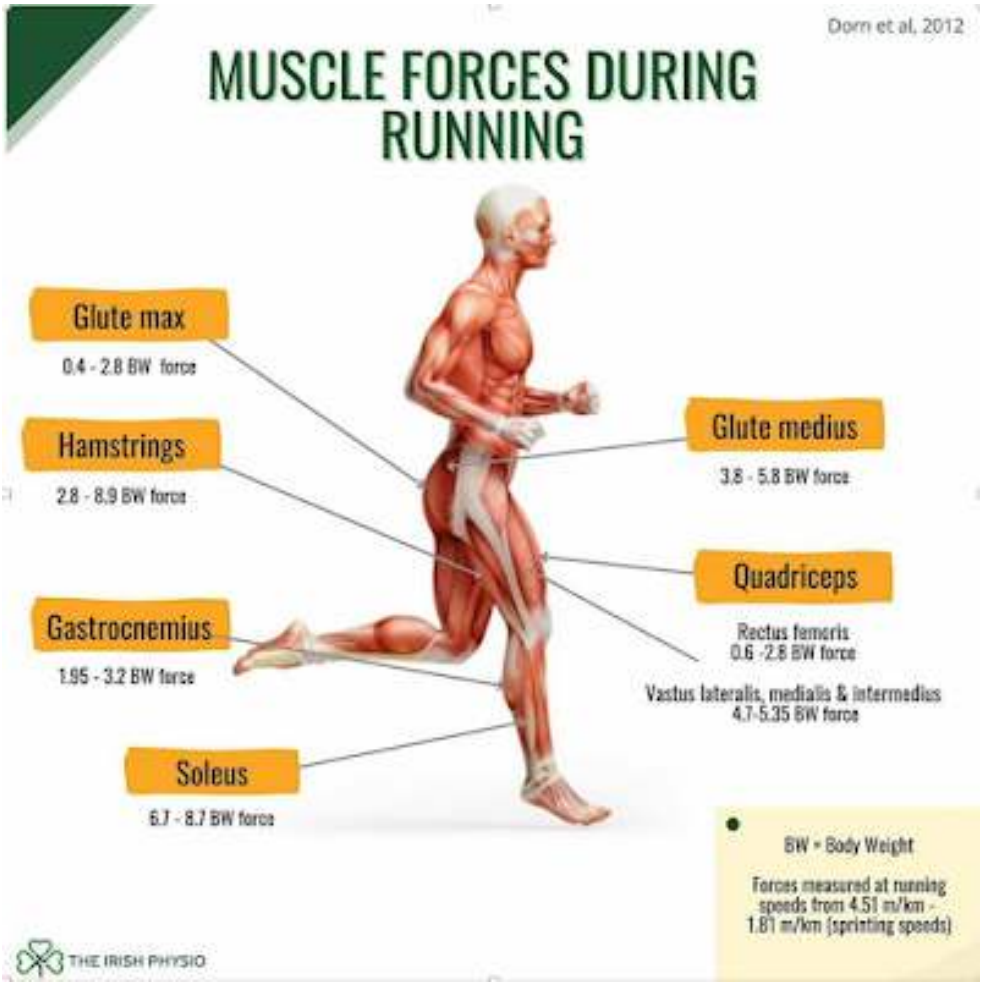
The is no doubt, that running is booming. With clubs, crews, and new running clubs popping up daily, it's great to see people engaging in an activity which is so beneficial to ones mental & physical wellbeing. Events are also heavily populated, from 5km to Ultras, and everything in between.

Whilst the distances vary if we were looking at running as a highly varied whole, there are general rules that athletes must adhere to in order to succeed as a runner, regardless of the specific event in which they choose to participate. Runners require specific 'fitness' as well as skill in running and they need extreme amounts of recovery capacity combined with an uncanny ability to avoid repetitive strain injuries or muscle imbalances. We'll offer some general training advice in this guide, but ideally your training will be bespoke to your individual fitness level, taking into account training history, injury history and lifestyle factors including time availability. We aren't trying to teach you to suck eggs, but it never hurts to refresh the basics.

“A foolish man builds his house on sand”

Running is great. It has so many benefits. There is a saying about too much of a good thing! The repetitive nature of the sport does lead to high injury rates, with incidences of 19-78% (Barton et al, 2018).

Whilst injury causes are multifaceted, it does seem the high loads placed through the body are a likely cause of a running related injury.



Despite these high forces, our bodies are awesome, and will cope with the demand. BUT, we must make sure we give our bodies lots of time to adapt, and condition our muscles groups for these demands. Runners love to run, and often neglect the important supplementary work.

To create strong & resilient bodies, we need to incorporate strength work. This can significantly help with running efficiency, and help us run further. What to do is dependent on a number of factors, such as age, training experience, ability to recover, and your goals.

I would highly recommend doing the following strength & flexibility tests, which will give you a benchmark of where you currently are, and a target or where to get to. The program is accessible and requires no more equipment than a sturdy object to place your foot on/lead from a height to land from.

The program will approach running in 3 key aspects:

• **Muscle force/endurance**: concept - ability to provide high force output over an extended period of time

• **Explosive strength**: concept - high force production through in low volumes as taxing for CNS

• **Core/trunk stability**: concept - support to lumbopelvic region to ease pressure on spine and pelvis.

These exercises target triple extension through the hips, knees and ankles, almost every sport movement, whether running, jumping or turning, and a lot of day-to-day tasks, such as walking, getting out of a chair and ascending or descending stairs, requires adequate levels of strength in these movements.

Insufficient levels of such strength can contribute to injury, but this can be easily avoided. Aim to perform as many reps as possible for each one, stopping when you can't do any more or your technique breaks down.

Record the number of reps you achieved for each as your baseline score. To improve your score, add these exercises to your regular workouts or use the progressions and regressions we have included.

If you can't hit the recommended amount of reps, break up each target number of reps across three to four sets. For example, the target reps for the single-leg hamstring bridge is 25, so begin with four sets of six single-leg hamstring bridges on each side.

Next week, progress this to three sets of eight, then two sets of 12 and eventually shoot for one full set of 25.

The target number on these tests are based on various studies which showed they helped reduce injury risk, but ultimately your unique baseline score is a better sign of progress. Set your score, build up your strength, then repeat the test.

As long as those numbers are going up, you will be better conditioned to run. How to change exercises: If we are unable to hit these numbers, then we start regressing the exercise to the one on its left and aim to hit these numbers, if we are unable to do this due to pain or capacity, we move to the one below.

We want to be finding the exercises challenging where we only have 3 or less repetitions left in the tank. At this point, we know we have hit a threshold/intensity that will create a beneficial change in the muscle. The objective should be to work at this intensity of exercise for a few weeks before progressing forwards to the exercise on the right of the exercise you are currently performing.

Why progress exercises: Progressing exercises is very important. If you can increase the demand of the exercise and build muscle strength to complete this, it will directly translate into:

- A better performance in endurance based running due to training

- Reduce the risk of injury due to exposing the muscle groups to more demanding and endurance-based exercises progressively rather than large jumps

- Increased efficiency at providing blood to muscles due to capillarisation changes

When to progress

Progressions should be systematic, once you have more than 3 reps left in the tank, and have been performing the current exercise for at least a week, then move up by one block to the right. Repeat for a week minimum, then progress when you can perform exercises with more than 3 reps in the tank. These exercises can make up your supplementary strength sessions during the week.

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*Advised - do either strength or endurance per session, not both in one session.

Calves: Single-leg calf raise (off a step or wedge)
Benchmark target: 25 each leg, tempo 1sec up/1sec down

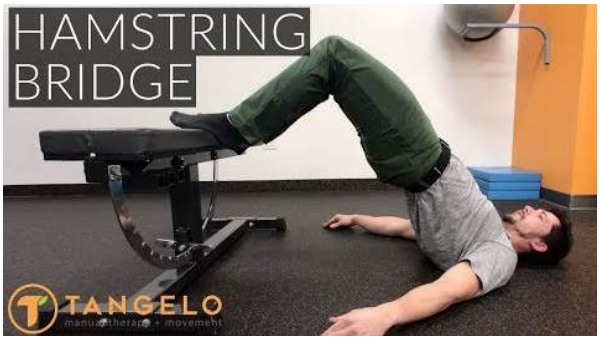
Regression: Double leg calf raise

Progressions: addition of weight/slowing tempo on eccentric phase/programming later when fatigued.

Sets and reps for strength: 3 sets 8-12 reps, 7/10 challenge level.
Sets and reps for endurance: 3 sets 15-25 reps, 7/10 challenge level.

Hamstrings/Glutes: Single leg hamstring bridge
Benchmark target: 25 each leg, tempo 1sec up/1sec down

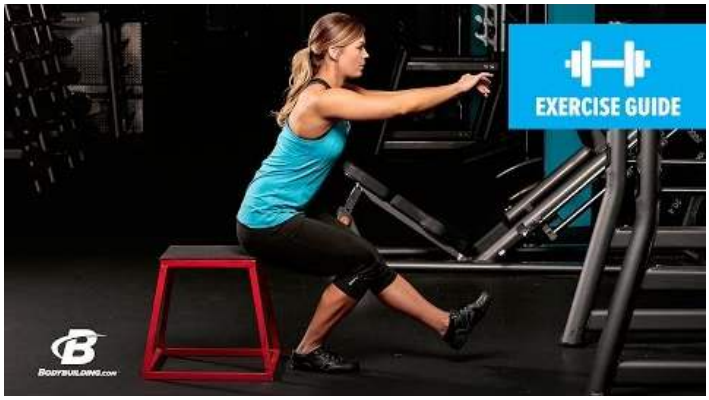
Regression: Hamstring Bridge



Progressions: addition of weight/slowing tempo on eccentric phase/programming later when fatigued.

Sets and reps for strength: 3 sets 8-12 reps, 7/10 challenge level.
Sets and reps for endurance: 3 sets 15-25 reps, 7/10 challenge level.

Quads/Glutes: Single leg sit to stand
Benchmark target: 22 each leg, tempo 1sec up/1sec down



Regression: Eccentric single leg squat

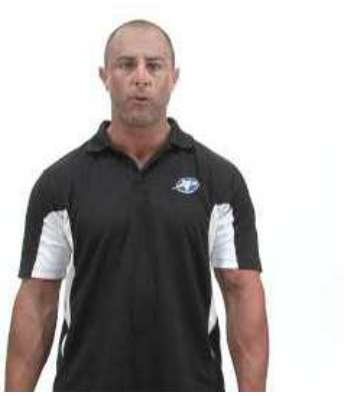
Progressions: addition of weight to hold/slow tempo on eccentric phase/program later in the session when fatigued already.

Sets and reps for strength: 3 sets 8-12 reps, 7/10 challenge level.
Sets and reps for endurance: 3 sets 15-25 reps, 7/10 challenge level.

Plyometrics:

Calf based plyometric:
Sets and reps: 3 sets of 8 reps (quality not quantity)

Countermovement jump:
Sets and reps: 3 sets of 3 reps



Core stability:

Deadbug
Sets and reps: Until 7/10 challenge hit.

Side plank:
Sets and reps: Until form fails

Flexibility tests:

Knee to wall test

Normal value: 3inches

Sit and reach

	Fitness Category	Males	Females
1	Excellent	>46.5cm	>45.5cm
2	Good	46.5 - 38cm	45.5 - 38cm
3	Average	37.5 - 27cm	37.5 - 29cm
4	Below average	26.5 - 17cm	28.5 - 20cm

About the Author: Phil Roberton BSc / Nike Athlete / Biomechanics Coach / NLP / Clinical Hypnotherapy.

A COACH WHO IS PASSIONATE ABOUT HELPING INDIVIDUALS FIND FULFILMENT IN EVERY ASPECT OF THEIR LIVES. WORKS EXCLUSIVELY WITH A NUMBER OF CHARITIES AND THEIR 2,000 TCS LONDON MARATHON RUNNERS, WITH THE GOAL OF REDUCING DROPOUT RATES AND INCENTIVISING HIGHER LEVELS OF FUNDRAISING.

He does this through the 20 years of being involved with the event, the understanding of the individuals involved, and educating them around his principles of PreFormance®. Preparing the body & mind for the lifestyle demands of getting to the startline. Nutrition, strength work, intelligent training, recovery, stress management, breathing, and other protocols. Training for this running event, isn't just about running. Neither is crossing the finishing line the hardest one to cross.

He uses the event as a platform to inspire people to find Purpose, create Balance, and to Change the(ir) World.