

## STRENGTH TRAINING FOR RUNNING

Total body strength training can not only significantly improve running performance, but can also reduce the chances of running related injuries

Much is said about core strength and rightly so. Since the running portion is usually started when one is already fatigued, having a strong core does wonders for maintaining good running form at this time.

But we should not forget the rest of our body.

Since our running cadence is around the same as the Kenyans (around 180 strides/min), if they run twice as fast as us it is because their stride is twice as long. Stride length starts right at the bottom with ankle strength.

Similarly, good arm drive can help power up hills, keep us erect, and help up with that spring at the end of a race.

There is a great deal we can do to become that ripped, strong, running machine but most of us put it on the back burner. It is often because of time constraints; often because we just don't enjoy it.

Two points are very important to remember here.

1. A small amount of core/strength work is a lot better than none.
2. A few basic exercises, done regularly and correctly, can pay big dividends.

### A FEW KEY GENERAL POINTS TO REMEMBER

1. Don't overemphasize select muscles (eg. Abs) while neglecting others (eg. Back) When a certain set of muscles are worked, don't forget their antagonistic muscles. Otherwise you'll get an imbalance and increase the chance of injury. A good example is working the quads while forgetting the hamstrings.
2. Make sure the exercises are done properly, targeting the correct muscles. A simple exercise done with less resistance is much more effective and safe than a more complicated, high resistance one.
3. Be conscious of your fitness level, age, etc. If things start to hurt, pull back.
4. Ease into the program and don't be afraid to stretch the appropriate muscles when needed.
5. For the time constrained athlete a targeted workout of even 10 minutes or less can be beneficial.

## CORE WORKOUTS

The core is a set of around 30 muscles that connect your legs to your hips, spine, and rib cage. It consists of the front and side abs, obliques, hip flexors, lower back muscles, and glutes.

When doing a proper core workout, make sure you work all muscles. The six pack abs are tempting but that doesn't help your running if the back and glutes are weak.

There are tons of core exercises and workouts. Here are some of the basics.

### RUSSIAN TWISTERS:

Basic: Sit with feet off ground, knees bent. Hands together touching one side, then the other.

Advanced(a) Bicycle with the legs while twisting.(b) Add a weight or med ball to the rotation.

### CRUNCHES:

Basic: Simple forward crunch.

Advanced(a) Touch elbow to opposite knee.(b) Do reverse crunches (lie on back, legs on floor,. Bring legs up to vertical position).

A more advanced exercise here would be Airplanes. Lie on your back with the legs together in a vertical position. Rotate the legs so that they touch the floor on one side. Bring them back up and touch the other side. Repeat.

## FRONT/SIDE PLANKS

Basic: Go into correct plank position and hold for a certain length of time, depending on your core strength. Keep body aligned from shoulders to feet. Avoid the banana look.

Advanced (Front) (a)From basic position, lift one leg and hold. Drop it down and lift the other. Only the leg moves. The rest of the body stays rigid. (b) Lift one leg and the opposite arm simultaneously. Hold for a few seconds. Repeat (c) Do with stability balls.

Advanced (side) (a) From basic side position lift the top leg up and down. (b) From the basic position drop the hips to the floor and back up. Repeat. (c) from the basic position place the top arm straight up, then rotate it to reach under the body. Bring back and repeat.

## BACK WORK

Bird Dogs: Get on your hands and knees. Extend one leg and the opposite arm straight out. Repeat with the other.

Supermans: Lie face down, arms extended. Raise one arm and the opposite leg. Hold. Repeat with the other arm and leg. For more difficulty, raise both arms and legs at the same time.

Back Extensions. Very good. You need support or a stability ball here.

## GLUTES

Bridges: Basic. Lie on back with shins at 90. Feet flat on floor. Raise hips so that knees to shoulders are in line. Hold.

Advanced: (a) Raise hips then lift one leg off the floor and hold it. The leg may be bent (easier) or straight. (c) same exercise but support the legs with the heel only. (d) Same exercises using a stability ball.

## HIP FLEXORS

Lunges: Basic: Hands on hips, chest up head up. Take long step forward. Keep 90 angle at the front knee. Dip back knee near or touching floor. Hold. Bring back front leg and repeat with the other. This may be done in one position or as a continuous walking series.

Advanced: (a) reach hands over head while lunging. (b) reach both hands to floor while lunging (c) Rotate so that the left elbow touches the right leading knee. Repeat with the right elbow and left knee. (d) Lunge while holding a weight or med ball to your chest, over your head, or moving it up and down, one side to another, as you lunge. (e) Back lunges instead of forward. (f) Go back, return, go forward, return, repeat.

Knee raises (with equipment)

Basic: Sit on a chair. Support with hands. Lift hips off the chair and raise the knees.

With gym equipment for support, go from standing position to rising the knees to a 90 angle

Advanced: Same exercise. Keep the legs straight throughout.

## OTHER KEY MUSCLES TO WORK ON

### ANKLE/CALF MUSCLES:

A long, powerful stride starts with a good rear leg push off. This requires strength in the ankle and calf area

Ankle raises can be done with and without weights

One legged hopping is excellent. Hopping continuously on one foot around a small square or X builds strength, speed, and balance.

Plyometrics like Frogs (repeated standing broad jumps), one legged hopping, and bounding build strength and power. Adding boxes to the drills really increases the difficulty.

## QUADS

Squats of all types, with and without weights, are great . They can be done continuously in sets. You can also get in the squat position and hold it for a period of time.

Hill training (especially short steep ones) is excellent as are bounding and plyometrics.

## ARMS AND SHOULDERS

Besides the arm drive. Strength in the shoulder and arm area helps posture, which is so important when you are fatigued.

### PUSHUPS;

There are many variations, from the easy to very difficult. What is important in all of them is that you maintain a good stable body position and you do the full pushup Keep the plank position and get that 90 bend in the arms. Use of stability , bosun, and med balls bring a lot more of the core into play.

## UPPER BACK

Good strong lats are important for balance and good posture. Don't neglect them if possible.

## MORE GENERAL NOTES

This outline merely touches the surface of what you can do.

If you invest in a few weights/ a suitable med ball/stability ball you'll have way more variety and scope with your workouts. Get equipment that is suitable for you.

You can find some good stuff on line. If you check out google, you tube etc, you can find lots of information.. Seeing videos of how things are done properly is a great help. Magazines like runners world often have videos and instruction on their websites.

Core and strength work is pretty well universal in all sports now. A dry land session in hockey or baseball will have a lot or similarity with a track workout.