

Strength Training Exercises



The introduction of strength training to complement the work you do on the track or on the road can reduce the risks of picking up many of the injuries runners see as part and parcel of their sport. It can also help you to become you a more efficient runner, improve your recovery from sessions and help you train harder and longer during your high training-load weeks. By selecting exercises that target the areas most important for running, you can ensure maximum crossover to your technical training. Below are 5 exercises that you can put together in a session to target each of those areas, writes Neil Welch, Lead Strength & Conditioning Coach SSC.

SINGLE LEG STRENGTH - REAR FOOT ELEVATED SPLIT SQUAT



This will help to increase your force production through one leg and work through the ranges of motion you need for running.

Get into a long stride, placing all your weight through your front heel; your back leg should be a passenger. Aim to keep your T-shirt logo at the wall in front, your waistband horizontal and thigh pointing straight ahead. Lower your back knee toward the floor, pause for two seconds at the bottom of your movement, then try to drive your heel through the ground as hard as you can back up to your start position.

Go for 3x5 on each leg with a load that feels like you could only manage 1 or 2 more reps with correct technique.

ROTATIONAL CONTROL - BANDED SINGLE LEG SQUAT



This is a challenging whole-body control exercise that will take some working towards. The picture demonstrates it using a high box; if the squat movement is too difficult, try just standing on one leg and resisting the rotation. As you improve, aim to start using lower boxes to increase the challenge.

The idea here is to keep your hands in line with your belly button as you squat. You will have to fight hard to stop your upper body and lower body from rotating.

3x5 reps on each leg, no external loads needed, increase the difficulty by increasing the range of motion you work through.

HAMSTRING STRENGTH - SINGLE LEG STIFF LEG DEADLIFT



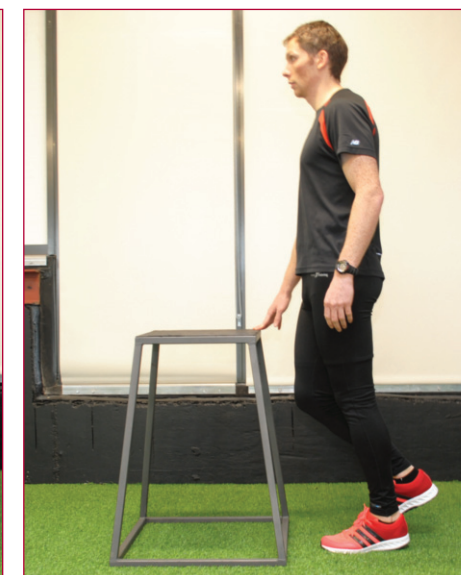
High hamstring issues are something we see a lot of at the clinic and they can be reduced through increasing hamstring strength and rotational control.

Start on one leg using the opposite hand for balance. Keep your weight on your heel and knee very slightly bent. All your movement should be like a see-saw, with your centre point being your hip. Lower your chest towards the ground, bringing your back leg with you until you feel a stretch in your hamstrings.

The key here is to keep your waistband parallel to the floor, not letting it tilt away; this is a common mistake with this exercise. After a one-second pause at the bottom, bring your self back upright by thinking about driving your heel backwards and into the floor.

3x5 each leg, progress by taking the hand away for balance then holding onto dumbbells.

CALF STRENGTH - SINGLE LEG SPEED CALF RAISE



Calf and Achilles injuries are very common in runners; this exercise is aimed at reducing the risk of these. The important emphases here are the speed and range of movement.

Use a wall for balance and start all the way up on the ball of one foot aiming to bury your big toe into the ground. Lower your heel to the ground over two seconds. As your heel kisses the ground, push the ball of your foot into the ground as hard as possible, bringing yourself up to the top position. The key here is to get absolute full range through your ankle through the line of your 1st toes, not your little toe. If this is too difficult to start with, go to two feet.

3x8 each leg, progress by holding a dumbbell in one hand using the other for balance.

JUMPING AND LANDING MECHANICS - BROAD JUMP TO SINGLE LEG LANDING



Plyometrics are well-known to enhance running performance. They are a very high-intensity form of exercise though, and shouldn't be used without some form of consistent strength training or without strong takeoff and landing mechanics.

This exercise aims to improve both of those while improving stiffness to improve your running economy.

Start on both feet in a quarter-squat position (bum back rather than knees forward); jump forwards landing on one leg. Try to land as quietly, quickly and as stable as possible, sitting back into the landing, not falling forwards onto the ball of the foot. Hold the landing for two seconds, then relax and reset before the next jump. Start small with the jumps, around 40cm, until you're able to control your landings, then progress the distance.

3x5 on each leg.