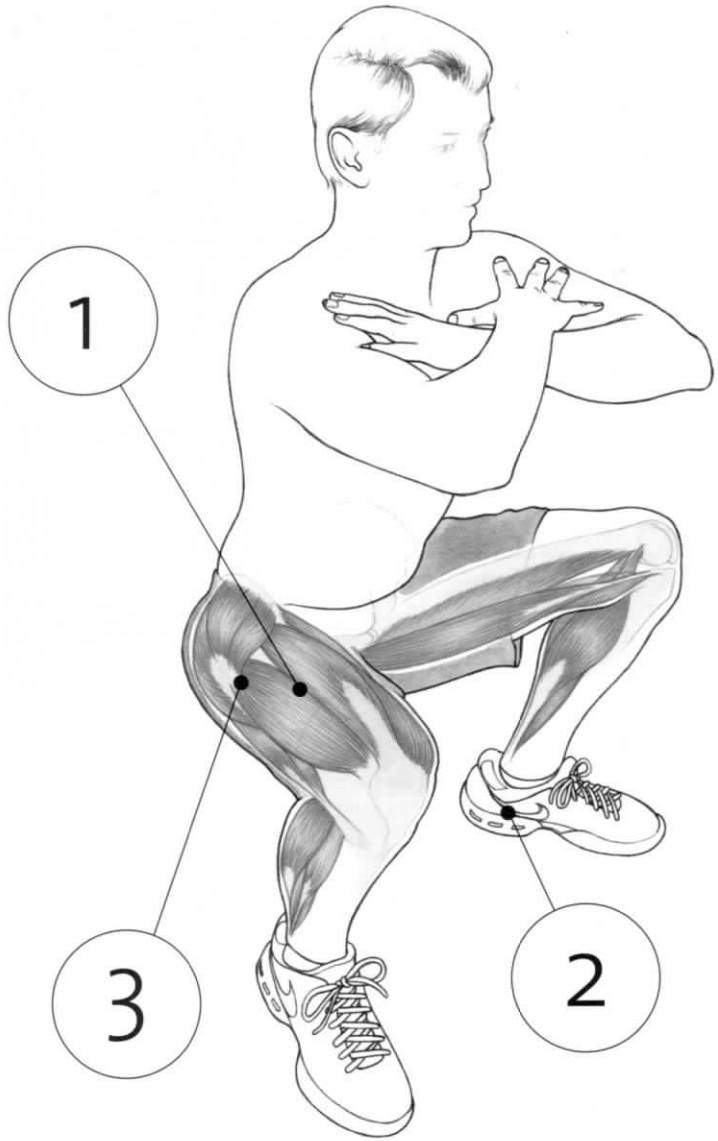
Legs – squats



1 Keep knees soft and gently squeeze abs and bum. Tip your hips back as if you are sitting down in a chair, then go down until your upper leg is parallel with the floor. Push back up to the start position.

2 Keep all the weight driving through your heels, as this will maximize the workload in the glutes and hamstrings. Make sure your back stays long and keep knees over your middle toes.

3 As you start to fatigue, focus on keeping your abs and backside muscles engaged as this will protect the lower back. Use your breathing to help, releasing breath as you press up.

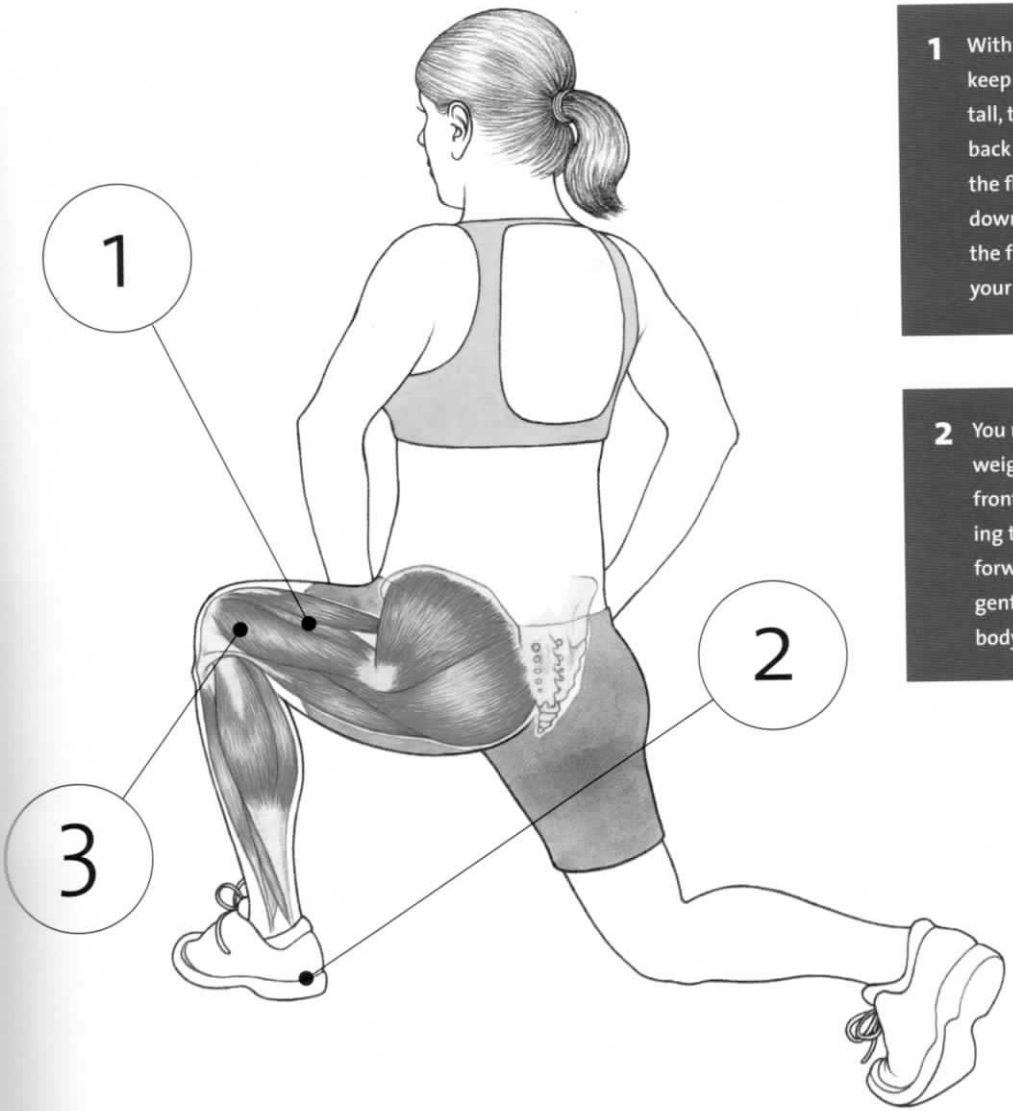
Muscles used

Primary: quads, glutes, hamstrings, lower back (erector spinae). Secondary: calves.

How will this help my running?

This exercise is all about strengthening the muscles you need for running, including the quads, hamstrings and lower back. The stronger your legs are the more you will be able to push off.

Legs – lunges



1 With feet hip-width apart keep knees soft and body tall, then take a long step back keeping back heel off the floor. Aim your back knee down to the floor and keep the front knee in line with your middle toe.

2 You need to keep your weight pressing through the front heel without allowing the front knee to travel forwards. Keep your pelvis gently tucked under your body.

3 The feel of the lunge movement is straight down and up. There should be no forward movement. This will keep the pressure on your front knee.

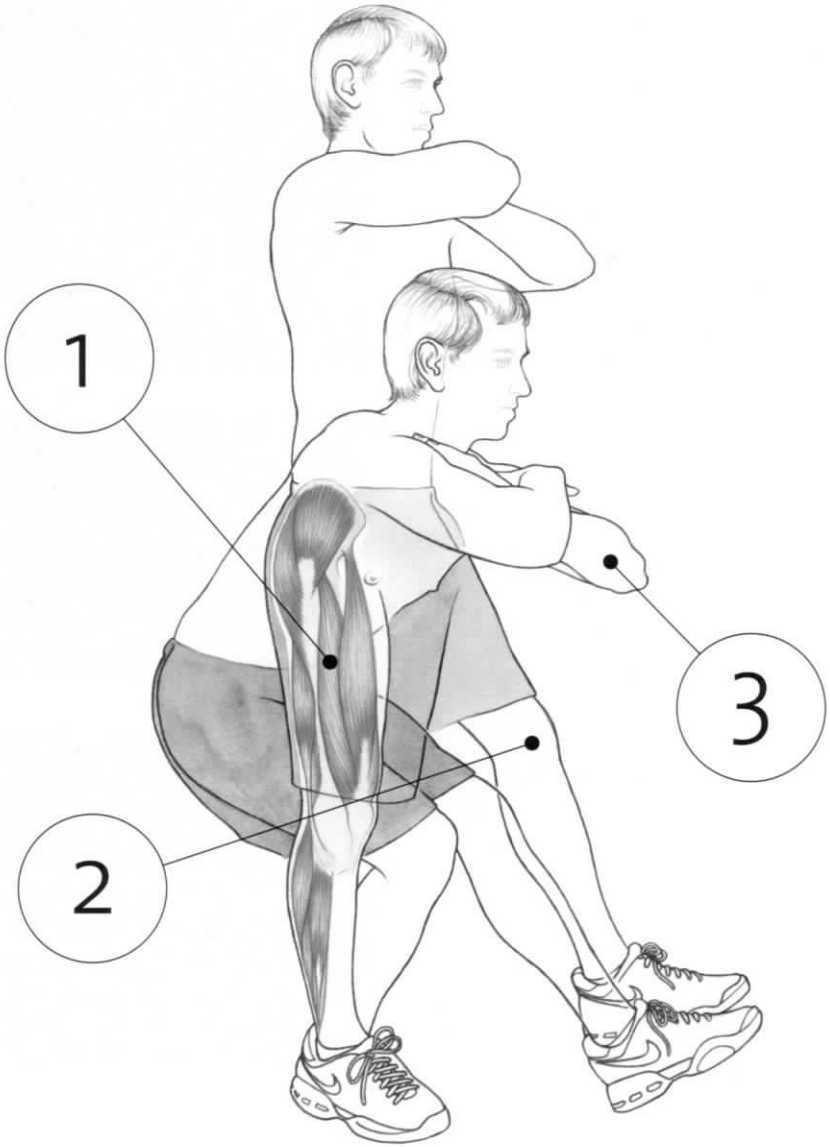
Muscles used

Primary: quads, glutes, hamstrings, calves.

How will this help my running?

This exercise promotes strength and power, enabling you to cover more distance on each stride. These type of power exercises also work the heart rate.

Legs – single leg squats



1 Standing on one leg have the other leg bent at a right angle with the knee at hip height. This is the position you will start and finish each rep.

2 Keeping the posture tall throughout the rep, bend your supporting knee sit back as if you are about to sit on to a chair.

3 This exercise is as much about balance as strength. So when starting you may want to use a wall as support. Lose this support as soon as possible to gain all the benefits.

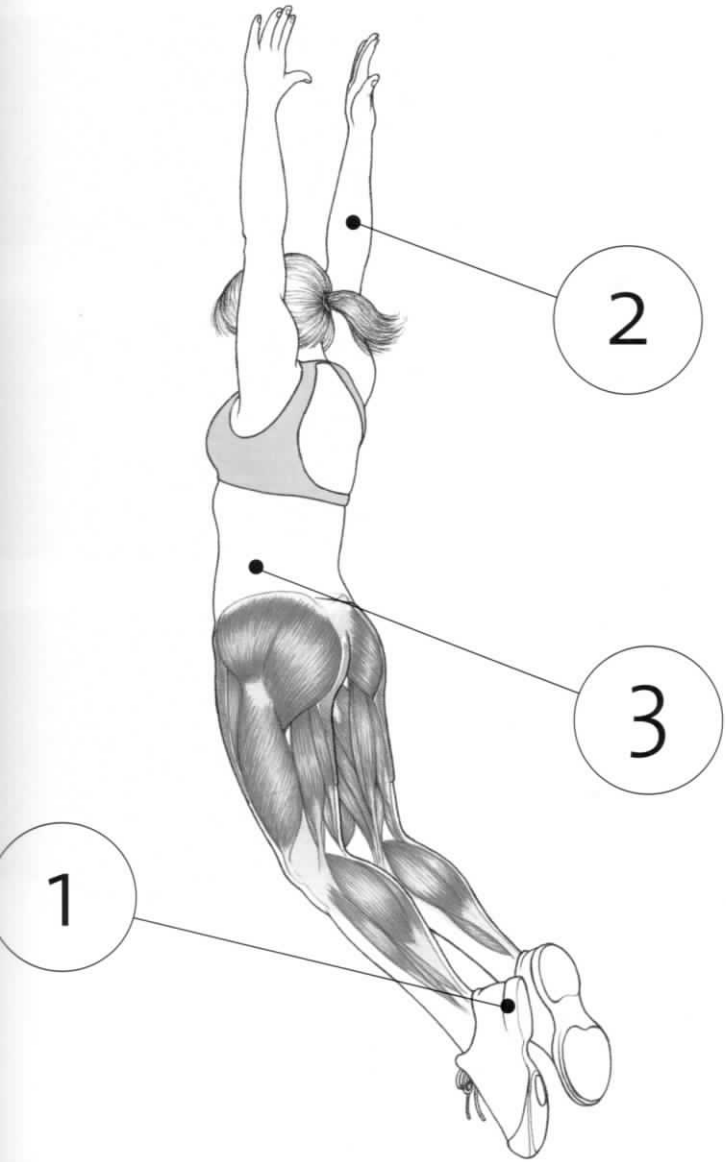
Muscles used

Primary: glutes, quads, hamstrings, calves. Secondary: lower back.

How will this help my running?

Extra strength and stability of one leg, which is how we run. All the muscles of the legs you use to run will be working. This can also help create a better alignment when you run, so preventing pronation and supination.

Legs – jump squats



1 This is advanced dynamic work. Take a shallow squat, then jump forward pushing equally off both feet to jump as far as you can. Land through a heel-to-toe action and bend your knees on impact to cushion the landing.

2 Take a pause between each rep to steady your body so you are in a strong starting position. You can use your arms to gain momentum, using a natural swing.

3 As with all dynamic work there is a high risk of injury if the exercise is not performed correctly, so as you get tired make sure your abs are gently squeezed in and landings are soft. If you can't maintain this then it's time to stop.

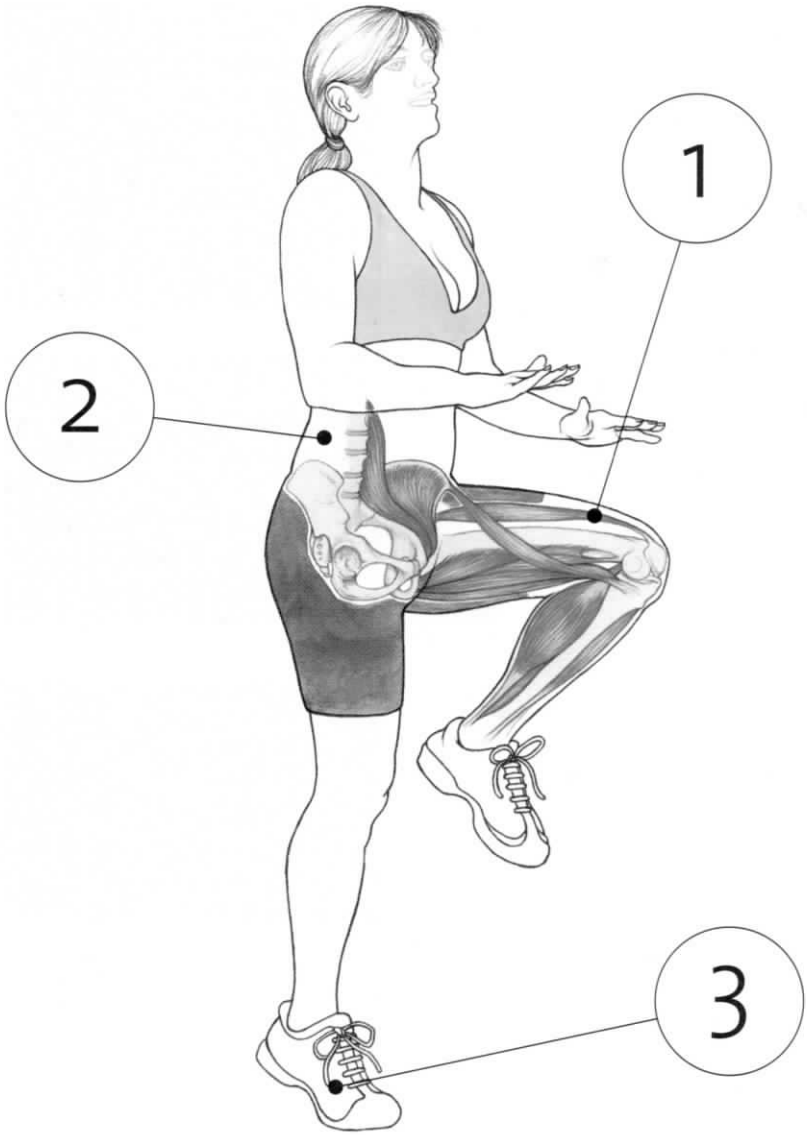
Muscles used

Primary: quads, glutes, hamstrings, lower back.
Secondary: calves.

How will this help my running?

Performing this exercise will give you the power your legs need to push off, and the control they need while landing. You will also feel your heart rate rising and working in your anaerobic zones.

Legs – single leg hops



1 Just like the single leg squats, start standing on one leg and have the other leg bent at a right angle with the knee at hip height.

2 Hop as high as you can, making sure that you do not bend forward or lean back. You should try to land on the same spot as where you took off.

3 To prevent any damage to your back or knees, the landing in this exercise is crucial. Make sure you are cushioning your landings as if you are landing on a mattress.

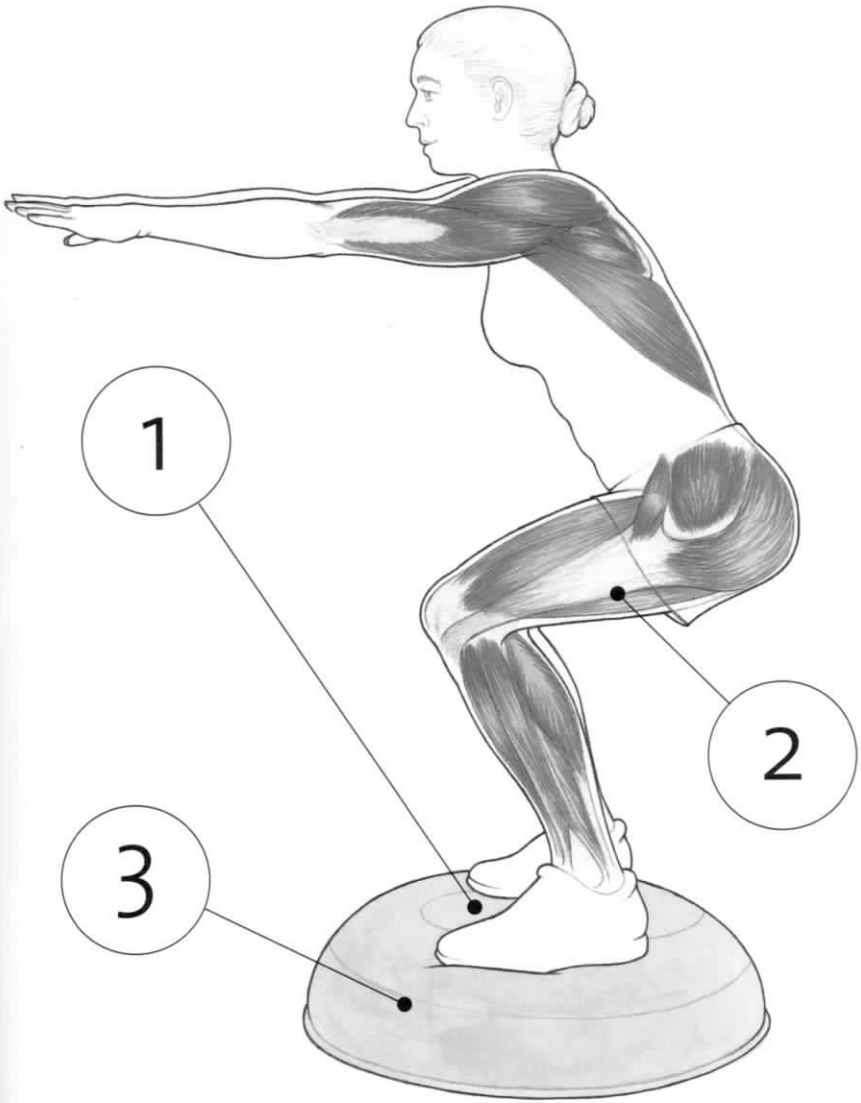
Muscles used

Primary: glutes, quads, hamstrings, calves.

How will this help my running?

This is a great exercise to give you power when you push off your leg, control when landing on your leg and all the stability you will need when running.

Legs – squats on ball



1 Start with your feet hip-width apart on the ball. Stand tall, then sit back and down keeping your back long and your chest lifted. Keep your knees in line with your middle toes.

2 All the weight needs to be going through the heel of your foot as this will take the pressure away from the knees and activate the glutes and hamstrings.

3 The action is the same as doing squats on the floor. You can also progress your lunges in a similar fashion by doing single leg squats.

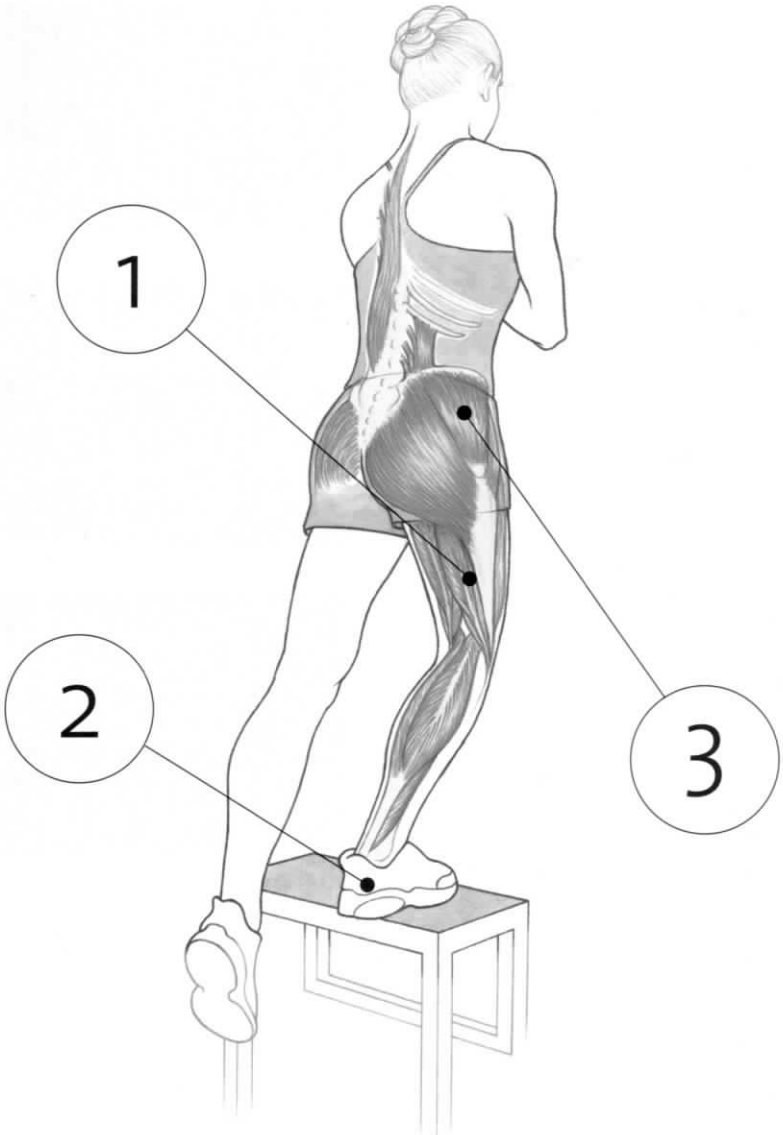
Muscles used

Primary: quads, hamstrings, glutes, lower back.
Secondary: calves, core.

How will this help my running?

As well as the strength benefits gained from the squat action, this exercise will help keep your posture tall when running, giving you a more efficient running action.

Legs – bench steps



1 Stand about 30cm (about 12 inches) away from a step or bench. Step one foot up before bringing the other leg up, always keeping the foot and knee at a right angle.

2 When stepping onto the bench with your first leg, carefully put your heel down first. This will keep your body secure on the bench and activate the correct muscles.

3 Always keep your body straight and tall. The temptation is to lean forward from the hips. To increase the intensity you can hold weights in each hand.

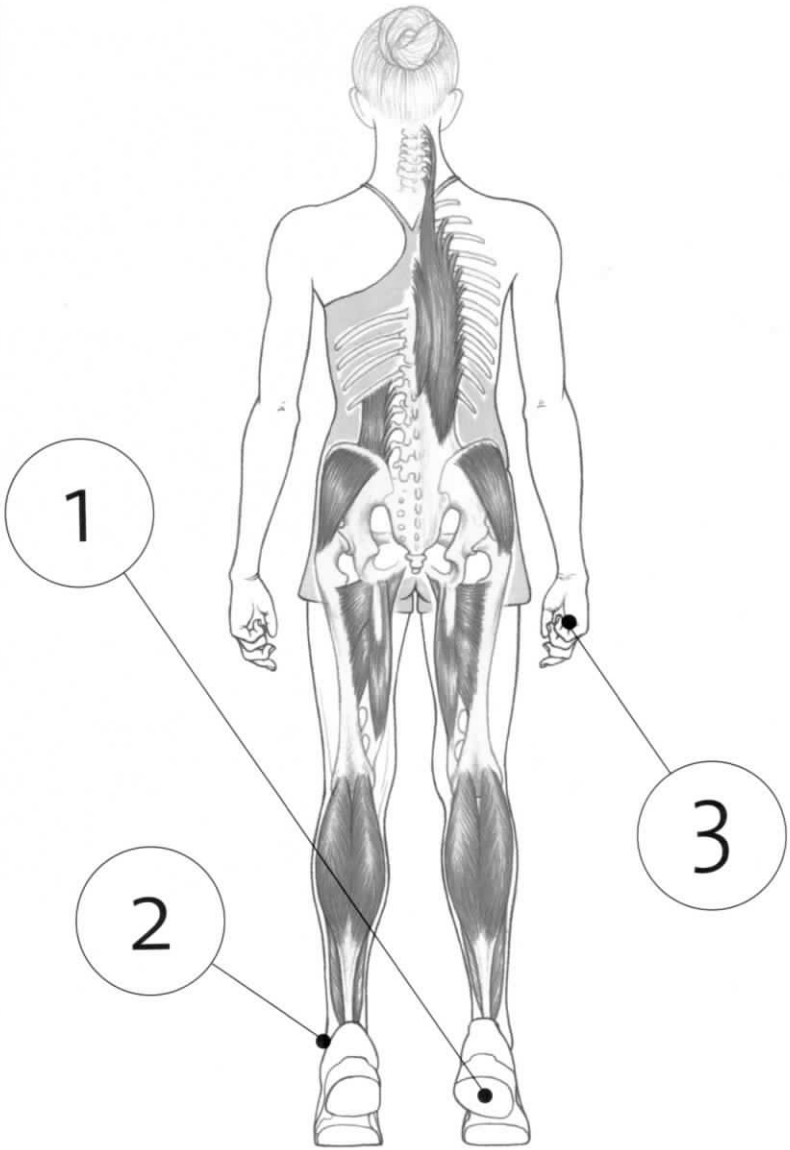
Muscles used

Primary: quads, glutes. Secondary: hamstrings, calves.

How will this help my running?

This gives you strength and power in your quads, hamstrings and core, which will really help with some of the steeper hills when running.

Legs – calf raises



1 Keep feet hip-width apart and your body tall, then rise up high onto the balls of your feet, and lower back to starting position.

2 Keep your ankles in neutral alignment. The temptation is to let your heels fall out to the side. Always keep your whole body lifted and straight.

3 To increase the intensity you can hold a weight in each hand. If no equipment is available simply use cans of food or something heavy and easy to hold.

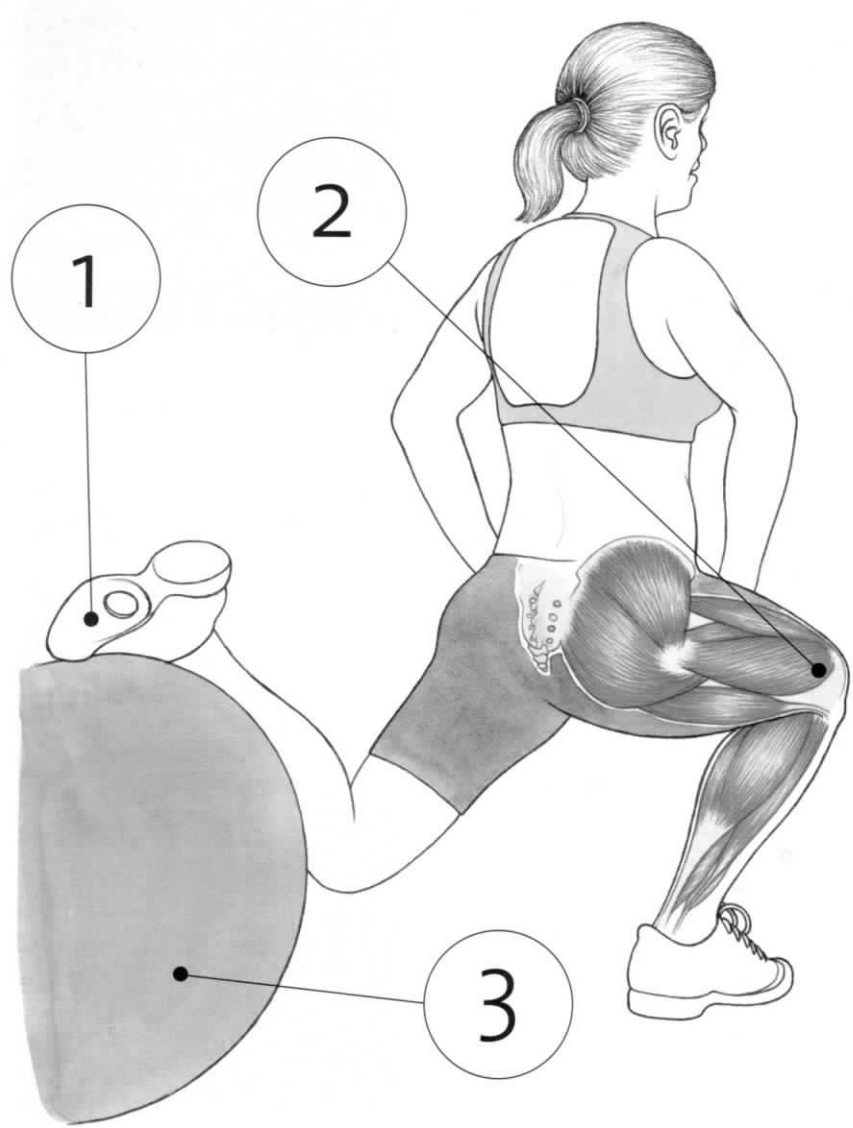
Muscles used

Primary: calves.

How will this help my running?

The calf muscles need to be really strong for runners. Every time your foot fully extends as you push off the floor your calf contracts.

Legs – lunges with one foot on ball



1 Have the top of one foot on the ball behind you. The weight should be on your front foot, which you should position as far forward as possible.

2 Bending the front leg make sure that your knee goes no further forward than your ankle. It should lower down to a 90-degree angle. Think of going straight up and down with all your weight pressing through the front heel.

3 This is an advanced exercise and requires strength and co-ordination. If you need the wall for support use it until you can manage without. If you don't have a exercise ball, you can use a more stable base such as a bench.

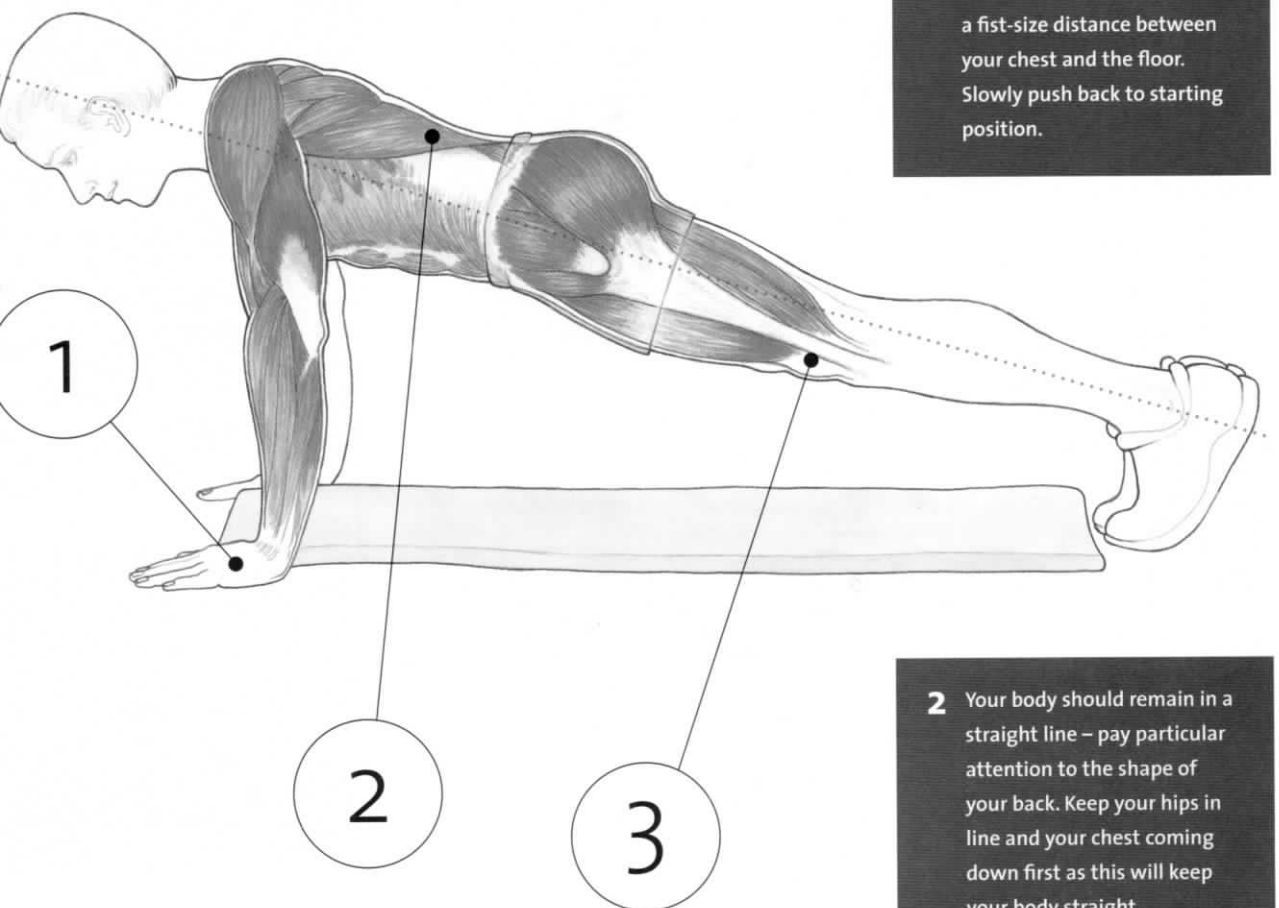
Muscles used

Primary: quads, glutes, hamstrings, calves.

How will this help my running?

This exercise will strengthen all the running muscles of the leg. It will force you to use one leg so you become equally strong in balance on both sides. Remember you use both legs to run.

Chest – press-ups



1 Start with your hands wider than your shoulders and then lower your chest down to the floor until there is a fist-size distance between your chest and the floor. Slowly push back to starting position.

2 Your body should remain in a straight line – pay particular attention to the shape of your back. Keep your hips in line and your chest coming down first as this will keep your body straight.

3 You can lower your knees down to lower the intensity of the press-up. You should also do this if you feel you are losing your body alignment.

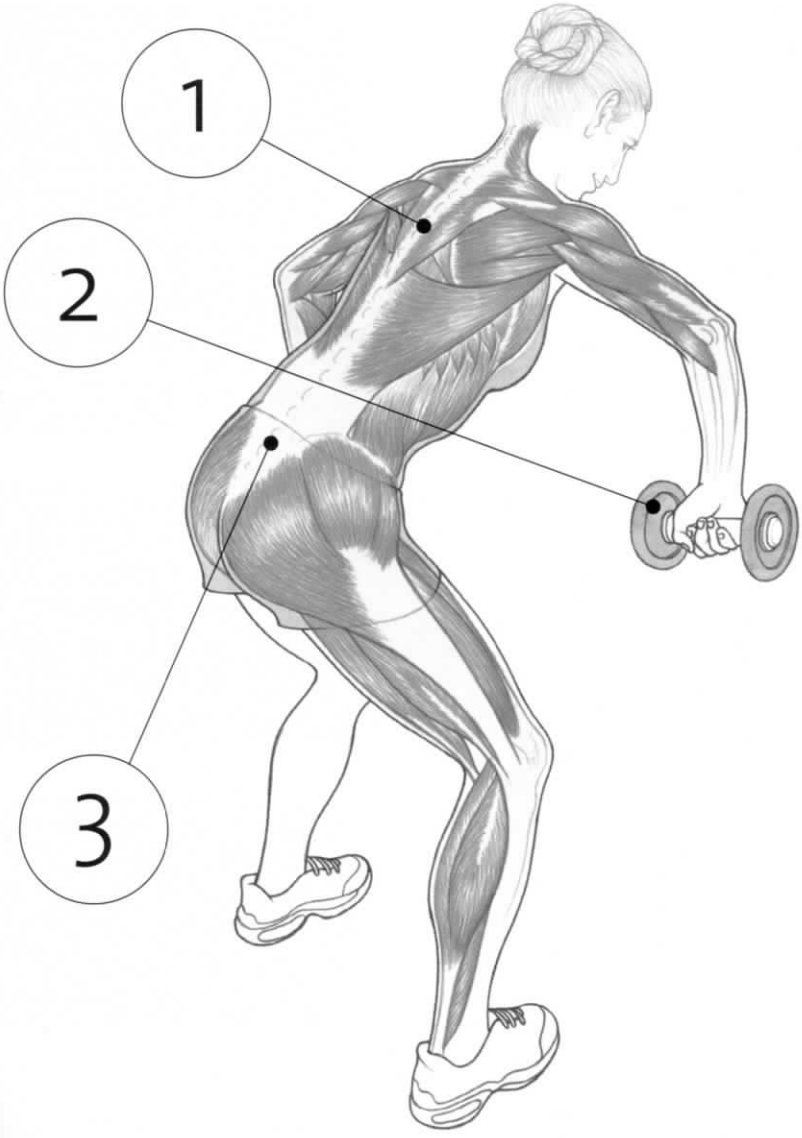
Muscles used

Primary: pecs.
Secondary: triceps.

How will this help my running?

This exercise will help keep your posture tall, promoting that ideal running stance. It will also keep your body in good overall balance.

Back – bent-over rowing



1 When lifting the weights feel your shoulder blades squeezing together. This will concentrate the workload in the centre of your back.

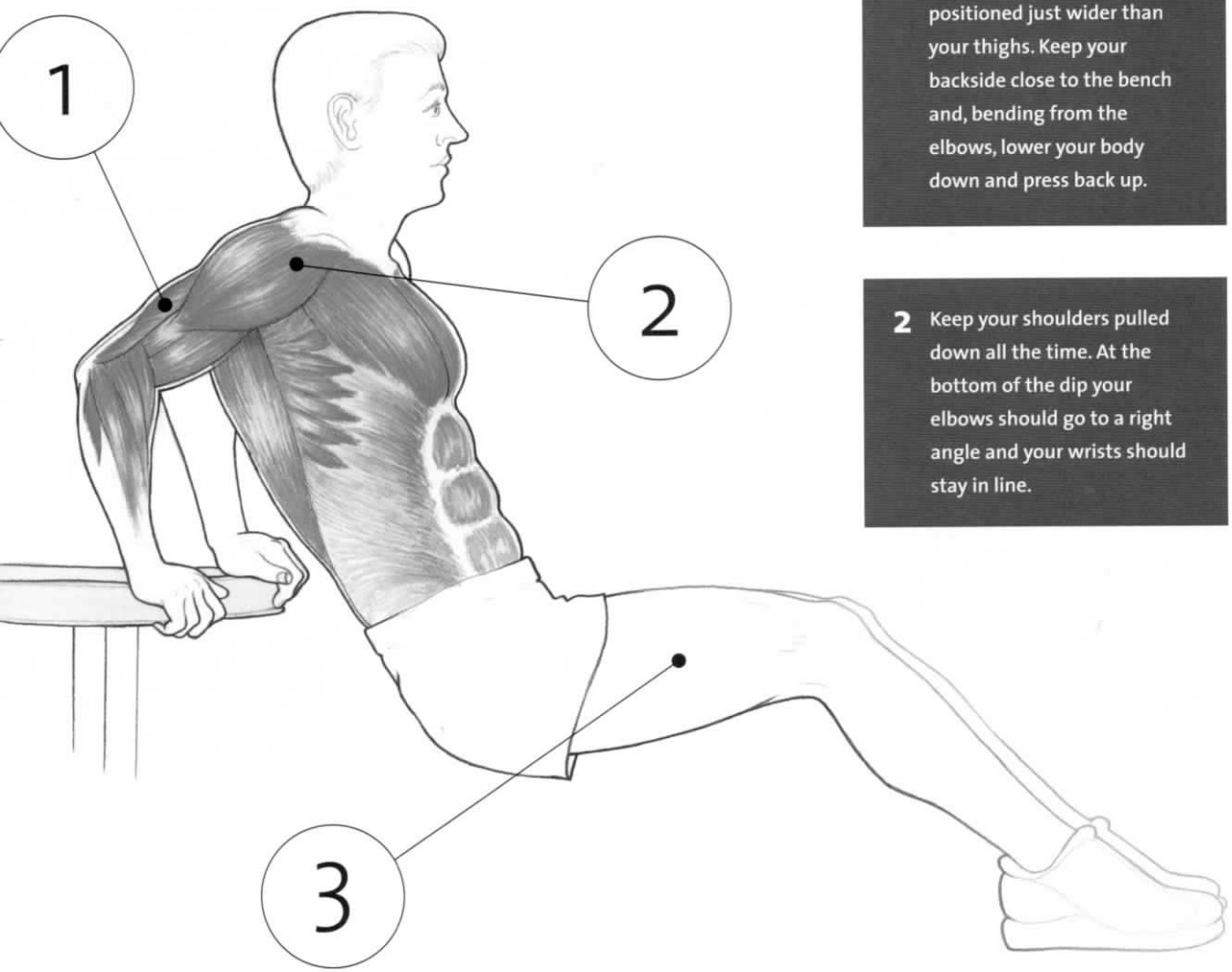
2 Start with the weights down by your knees. Stay in this bent-over position and squeeze the weights in towards the belly button in a rowing movement, before straightening your arms to the starting position again.

3 Staying in this position can be tough on your lower back and there is a temptation to curve your lower spine outwards. Avoid this by keeping your pelvis in the correct alignment and squeezing your abs.

Muscles used	How will this help my running?
Primary: neck, shoulder and back (trapezius). Secondary: biceps.	You will be working the centre of your back and lower shoulder muscles which help keep the posture open and stop the hunched posture often seen in runners.

* To do this exercise without weights, start in the same position but put both feet on a resistance band and pull round in an arc from your shoulders in the same path to the top as with weights.

Arms – tricep dips



1 Start with your hands on a bench (or step) and positioned just wider than your thighs. Keep your backside close to the bench and, bending from the elbows, lower your body down and press back up.

2 Keep your shoulders pulled down all the time. At the bottom of the dip your elbows should go to a right angle and your wrists should stay in line.

3 You can make this exercise more intense by straightening your legs and flexing your feet. When doing this keep your backside close to the bench.

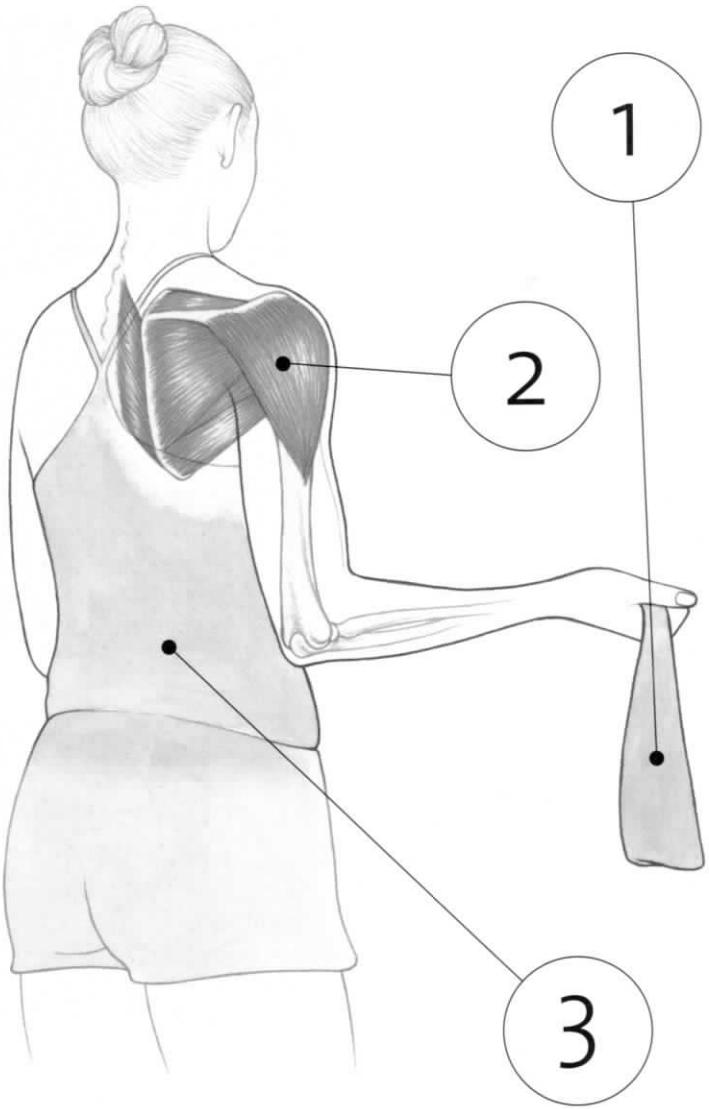
Muscles used

Primary: triceps.

How will this help my running?

Similar to the bicep curls, this will help create a good even strength to your body, but don't imagine that because you have big arms you will run better.

Shoulders – rotator cuff



1 Using a resistance band, start with one end of the band tied to a pole and hold the other end in one hand. Ensuring you keep your working elbow close to your body pull your hand across the body at a right angle.

2 While keeping your elbow at a right angle, open your arm outwards from your body so you are squeezing the back of your shoulder.

3 This is a great exercise for keeping the shoulder alignment open. Make sure your posture stays true so you don't allow any movement around your back.

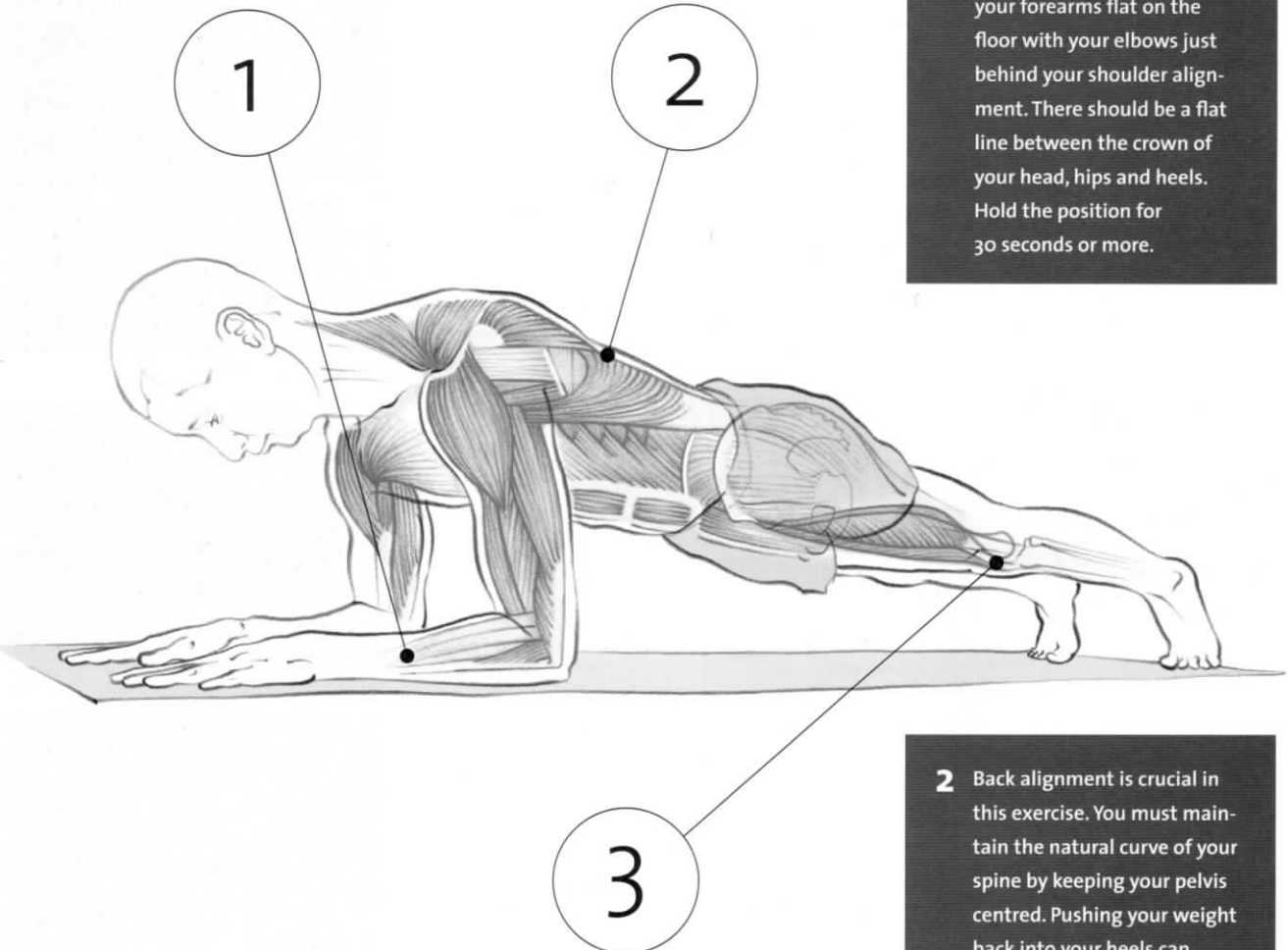
Muscles used

Primary: back of shoulder (rotator cuff).

How will this help my running?

Strong shoulders help to keep your upper body tall and avoids you hunching over, which is a common problem among longer distance runners.

Core – front plank



1 To get into position place your forearms flat on the floor with your elbows just behind your shoulder alignment. There should be a flat line between the crown of your head, hips and heels. Hold the position for 30 seconds or more.

2 Back alignment is crucial in this exercise. You must maintain the natural curve of your spine by keeping your pelvis centred. Pushing your weight back into your heels can really lengthen your spine.

3 If you cannot maintain the correct alignment, gently lower your knees to the floor. You should do this for a lower intensity option.

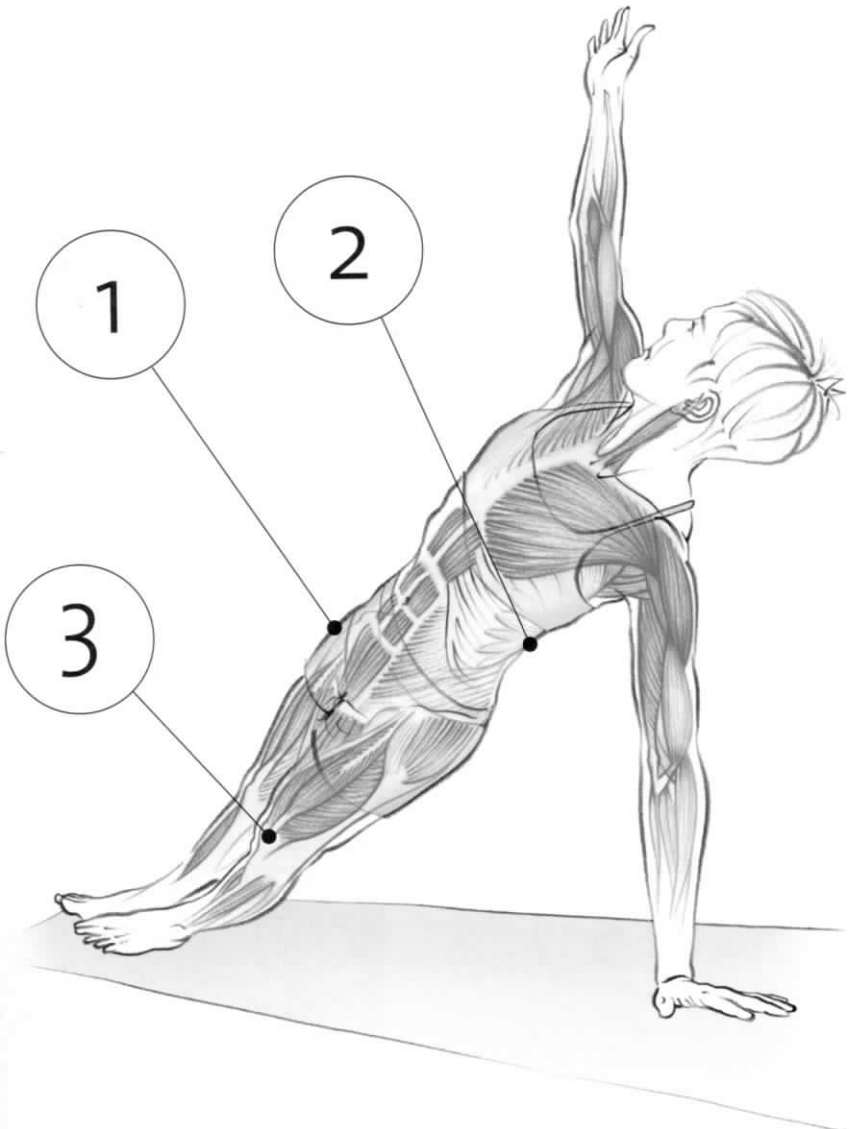
Muscles used

Primary: deep and superficial abs and lower back.

How will this help my running?

Core strength is essential for runners to ensure posture stays tall and straight, especially during long distances when tiredness kicks in.

Core – side plank



1 To get into position place one hand on the floor with your elbow in a direct line under your shoulder. Your hips should be stacked one on top of the other. Then lift up as if you a drawing away from a flame until your body is in position as per the illustration. Hold for 30 seconds or more.

2 As with the front plank the key is body alignment. Your back must maintain its natural curve – lengthen your legs as the will help to keep your back long.

3 A lower intensity alternative of this exercise is to bend your knees at a right angle so your feet are behind and lift up on your arm while balancing on your knees. This can be used if your shoulders are weak.

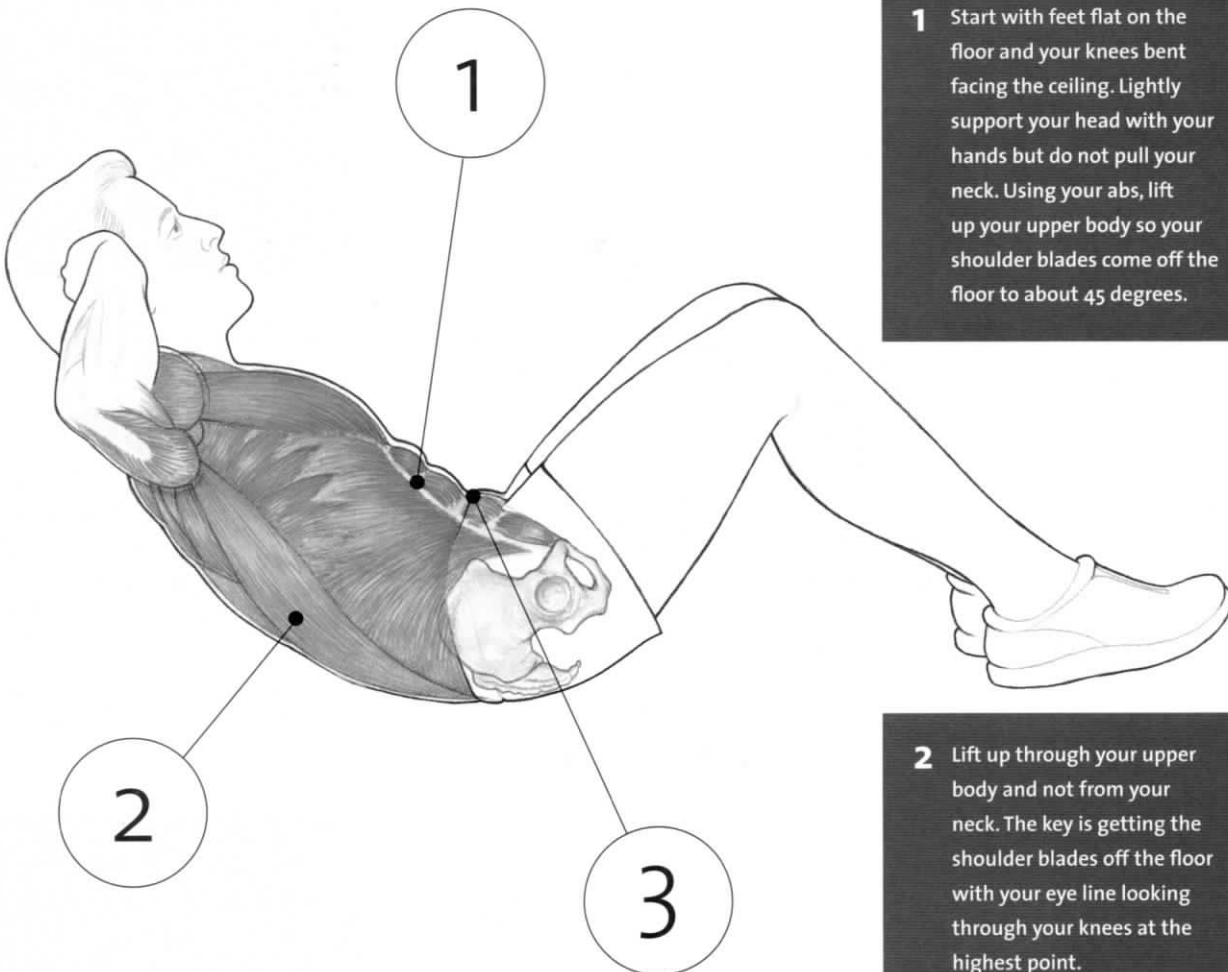
Muscles used

Primary: side abs, deep and superficial abs and lower back.

How will this help my running?

Strengthens your obliques and core muscles. Vital in helping to promote a good running posture and preventing back injury.

Core – sit-ups



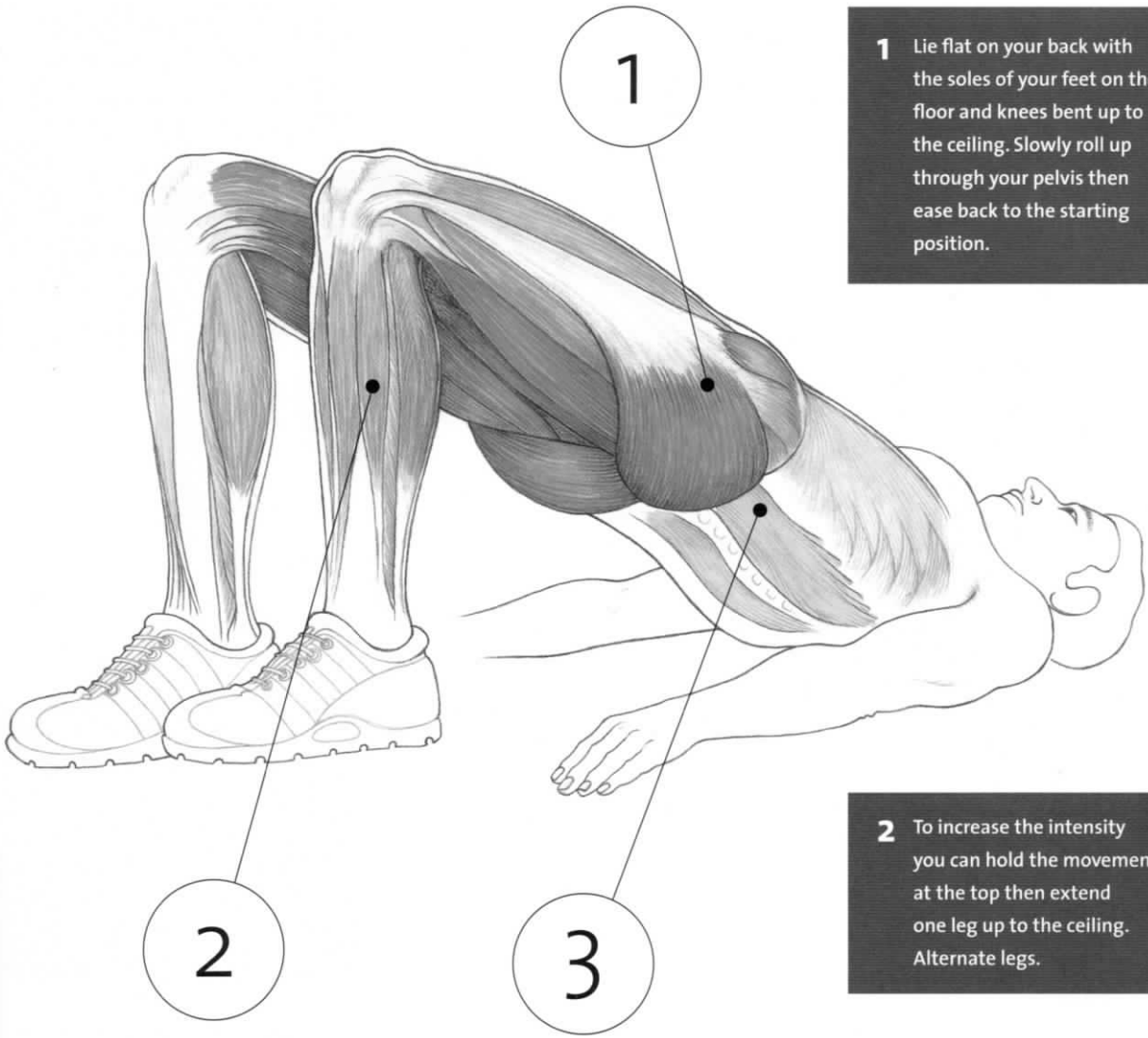
1 Start with feet flat on the floor and your knees bent facing the ceiling. Lightly support your head with your hands but do not pull your neck. Using your abs, lift up your upper body so your shoulder blades come off the floor to about 45 degrees.

2 Lift up through your upper body and not from your neck. The key is getting the shoulder blades off the floor with your eye line looking through your knees at the highest point.

3 To get the best results keep pulling your belly button gently back towards the spine. For increased intensity and to improve balance, this exercise can be done with the base of your back balanced on an exercise ball.

Muscles used	How will this help my running?
Primary: superficial abs.	Sit-ups will work your six-pack muscles, which are worked as you bring your legs through when running.

Core – shoulder bridge



1 Lie flat on your back with the soles of your feet on the floor and knees bent up to the ceiling. Slowly roll up through your pelvis then ease back to the starting position.

2 To increase the intensity you can hold the movement at the top then extend one leg up to the ceiling. Alternate legs.

3 At the top of the movement your shoulders, hips and knees should all be in a line. When rolling up and down, imagine your spine as a bi-cycle chain and roll through each link one at a time.

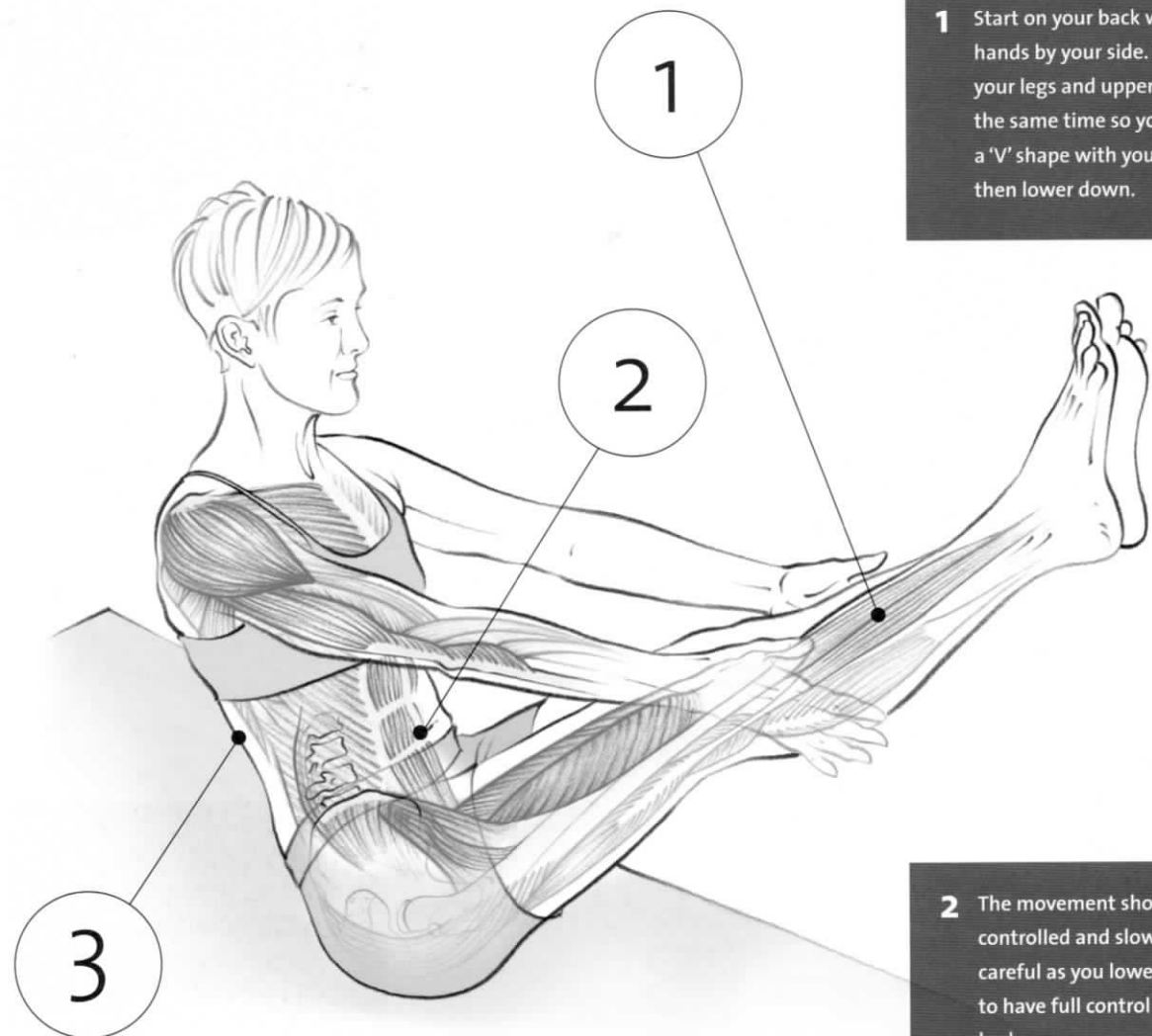
Muscles used

Primary: glutes, hamstrings, lower back, abs.

How will this help my running?

This exercise works all the smaller core muscles down the spine. You will be grateful for doing this exercise after those long training runs, as it will stop the back hurting.

Core – leg raises



1 Start on your back with your hands by your side. Lift up your legs and upper body at the same time so you create a 'V' shape with your body, then lower down.

2 The movement should be controlled and slow. Be very careful as you lower down to have full control of your body.

3 This is a tough exercise and performed incorrectly can cause injury to the back. A good option to start with is to keep the knees bent as you come up.

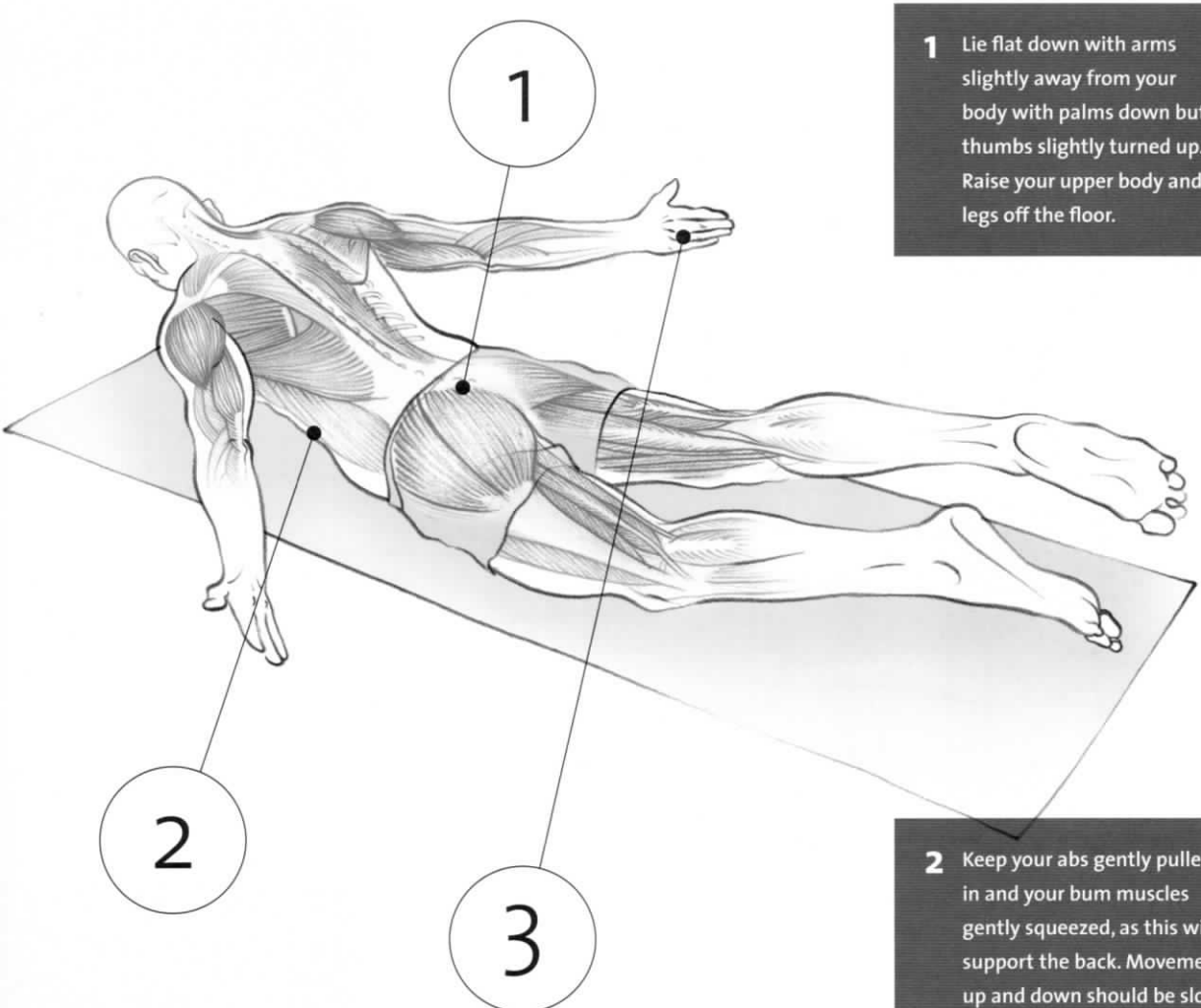
Muscles used

General: top of leg and abs, hip flexors.

How will this help my running?

This will work the hip flexors (top of the leg), and external abdominal muscles. Getting them stronger will help you bring your leg through more smoothly.

Core – back raises



1 Lie flat down with arms slightly away from your body with palms down but thumbs slightly turned up. Raise your upper body and legs off the floor.

2 Keep your abs gently pulled in and your bum muscles gently squeezed, as this will support the back. Movement up and down should be slow and controlled.

3 If you want more support for your back place your hands under your shoulders for support and push up from the floor. Use as much or as little pressure on the hands as you need.

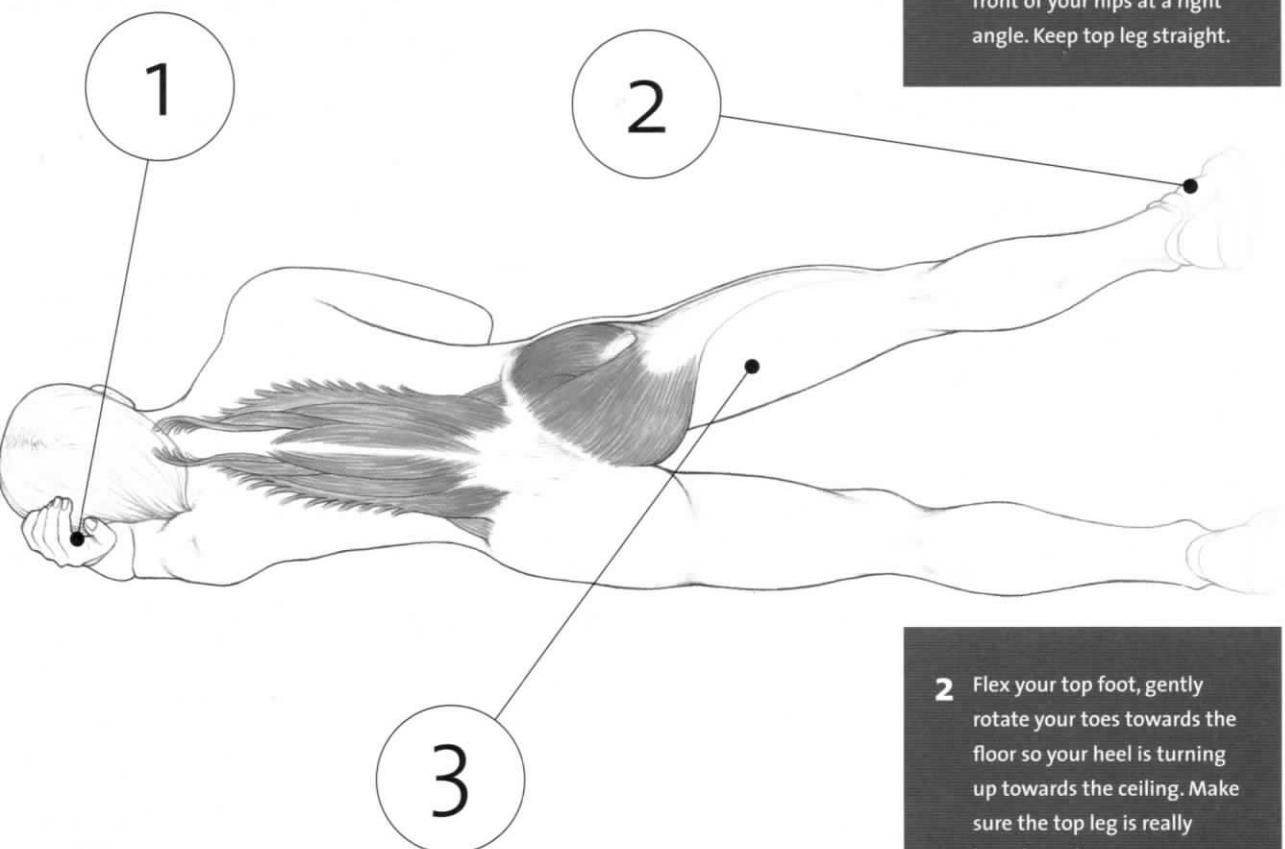
Muscles used

Primary: lower back.

How will this help my running?

This exercise strengthens the lower back muscles to make sure that you can keep the posture true throughout your runs. Remember a good posture creates a more efficient and faster running action.

Core – hip abductor



1 Lying on you side, support your head with your hand. Have your bottom knee in front of your hips at a right angle. Keep top leg straight.

2 Flex your top foot, gently rotate your toes towards the floor so your heel is turning up towards the ceiling. Make sure the top leg is really lengthened.

3 Gently pulse the top leg up and down 10 times. Then create small circles one way 10 times and reverse and repeat the circle 10 times. Repeat this set two to three times.

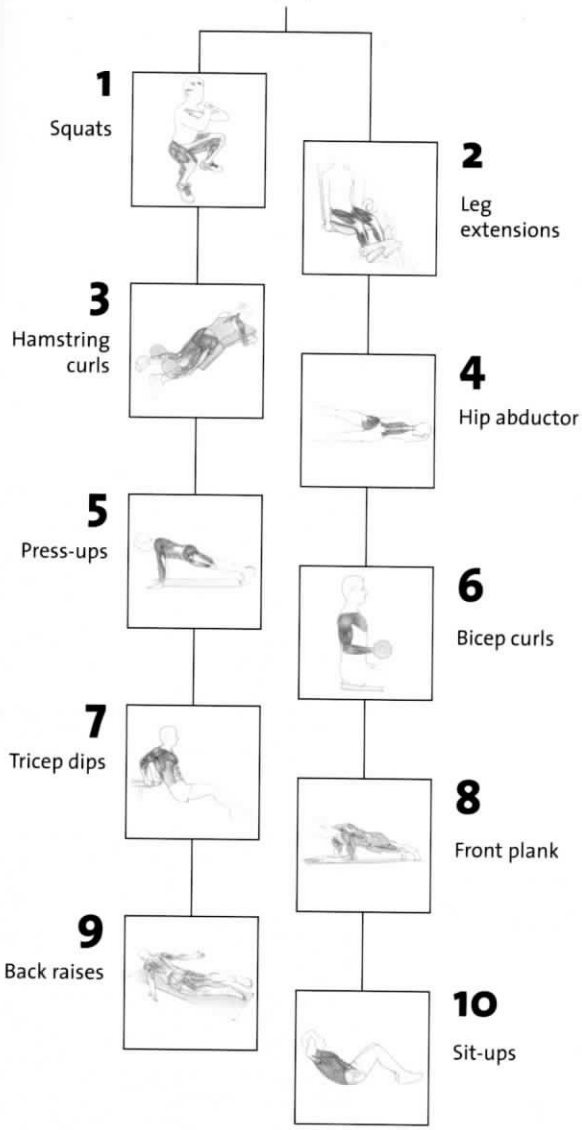
Muscles used	How will this help my running?
Primary: glutes	This exercise really isolates the glute. This muscle is used in stabilizing the hips, which helps in the prevention of runners' knee.

Workout programme – beginners

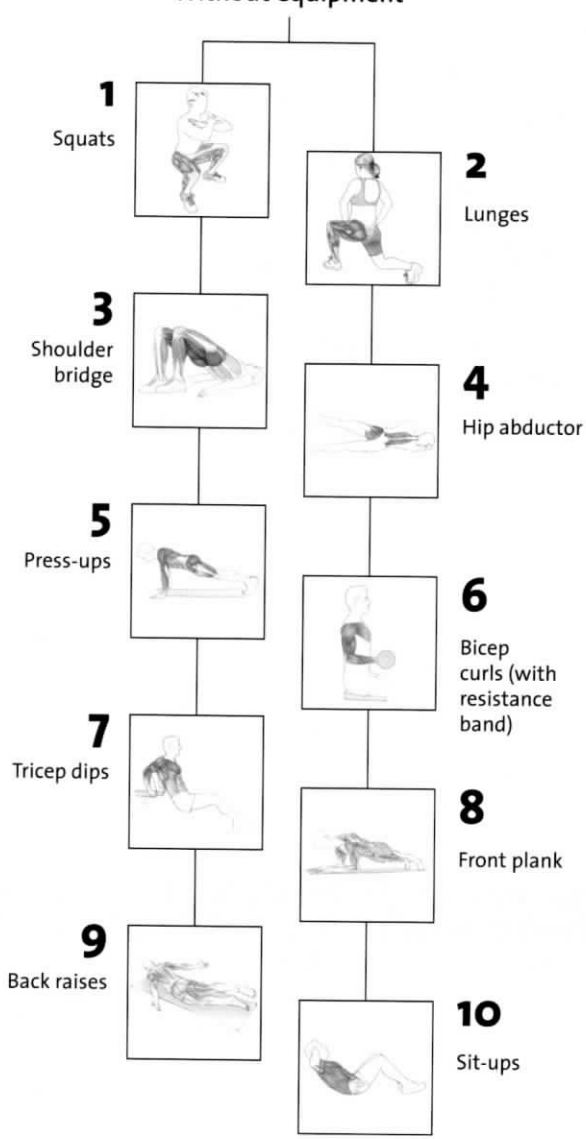
Sets x2, reps x8-12 (sit-ups, core raises, back raises x15 reps), 1 min recovery between exercises.
Planks: aim for 30 second holds (reduce if losing technique).

To find your ideal weight for each exercise you should be able to complete the reps but just about hit failure on the final rep. As a guide, the heaviest weight you would use would be for your larger muscle groups (eg glutes and quads used in squats) and the lightest weight you would use would be for your smaller muscle groups (eg biceps in bicep curls).

With equipment



Without equipment



Workout programme – intermediate

Sets x2, reps x10-15 (core raises x20 reps)
Planks: aim for 45 second holds (reduce if losing technique)

To find your ideal weight for each exercise you should be able to complete the reps but just about hit failure on the final rep. As a guide the heaviest weight you would use would be for your larger muscle groups (eg glutes and quads used in lunges) and the lightest weight you would use would be for your smaller muscle groups (eg shoulders in bent-over rowing).

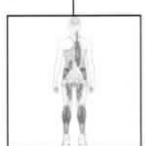
With equipment

1 Squats on a ball

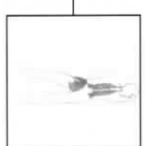
2 Dead lift

3 Single leg squats

4 Calf raises

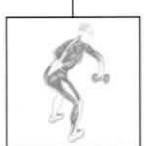


5 Hip abductor



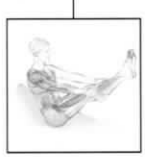
6 Press-ups

7 Bent-over rowing



8 Side plank

9 Leg raises

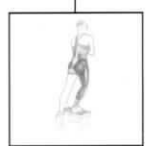


10 Balance on one leg

Without equipment

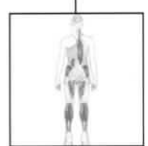
1 Lunges

2 Bench steps

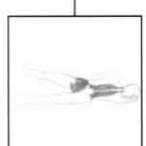


3 Single leg squats

4 Calf raises



5 Hip abductor



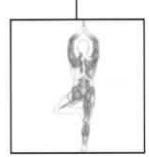
6 Press-ups

7 Bent-over rowing (with resistance band)

8 Side plank

9 Leg raises

10 Balance on one leg



Workout programme – advanced

Sets x3, reps x12-15 (core raises x30 reps)
Planks: aim for 1 min to 1 min and 30 seconds holds (reduce if losing technique)

To find your ideal weight for each exercise you should be able to complete the reps but just about hit failure on the final rep. As a guide, the heaviest weight you would use would be for your larger muscle groups (eg glutes and quads used in lunges) and the lightest weight you would use would be for your smaller muscle groups (eg shoulders in bent-over rowing).

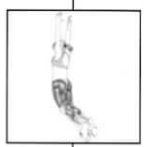
With equipment

1 Lunges with one foot on ball

2 Single leg squats

3 Single leg hops

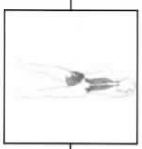
4 Jump squats



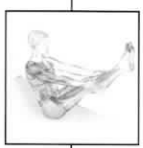
5 Press-ups

6 Dead lift

7 Hip abductor



8 Leg raises



9 Front plank

10 Side plank

Without equipment

1 Lunges

2 Single leg squats

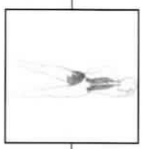
3 Single leg hops

4 Jump squats

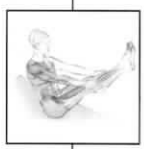
5 Press-ups

6 Bent-over rowing (with resistance band)

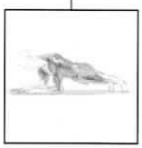
7 Hip abductor



8 Leg raises



9 Front plank



10 Side plank