

PILATES

CORE STRENGTH, EXERCISES & DAILY ROUTINES



FLAME TREE
PUBLISHING

THE CORE MUSCLES

The core applies to the band of muscles that sits under your ribcage and either side of your spine. This area is important when it comes to your overall body strength, as every movement you make originates from here. Hence, when this area is unstable, or weak from underuse, instability occurs, which can lead to injury and imbalance. The core is made up of more than just your abdominals and back. There's a whole layer of muscles under your torso, including your pelvis and your back.

Your core muscles include:

✔ **Multifidus:** Deep spinal muscles that run from the neck to the centre bone of the chest.

✔ **External obliques:** Muscles on the side of the waist that attach at the lower ribs, pelvis and abdominal fascia (see right).

✔ **Internal obliques:** Internal waist muscles or abdominal muscles that attach at the lower ribs, rectus sheath, pelvis and thoracolumbar fascia.

✔ **Transversus abdominis:** Abdominal muscles that attach at the lower ribs, pelvis, thoracolumbar fascia and rectus sheath.

✔ **Rectus abdominis:** A pair of muscles that run vertically on the front wall of the abdomen, generally referred to as 'abs.' This is the primary abdominal muscle that attaches to the lower sternum and the front of the pubic bone.



✔ **Abdominal fascia:** These connective tissues join the obliques and rectus abdominis to the pectoral muscles.

✔ **Latissimus dorsi:** A pair of dorsal muscles also known as 'lats'. This muscle is the largest spinal stabilizer and helps perform all the pulling motions through the arms.

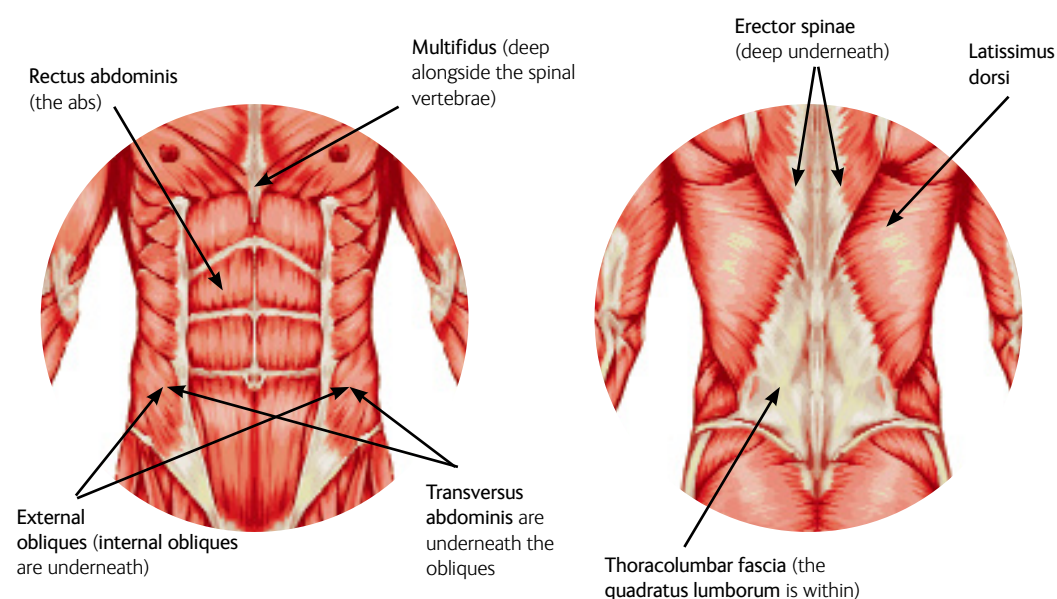
✔ **Erector spinae:** This paired bundle of muscles and tendons runs the length of the back.

The core muscles all work together to support the lumbar spine (the lower part of the back).

✔ **Quadratus lumborum:** This muscle stabilizes the spine while allowing flexibility.

✔ **Thoracolumbar fascia:** Think of this as a net. It connects and holds the lats, glutes, internal obliques and transverse abdominals and supports the spine.

It's not important to memorize all these muscles, but it is important to realize just how complicated your core is, and why it's imperative to keep it stabilized and strong. Knowing how and when your core is centred is one of the first skills you'll learn in Pilates. It's not just a matter of pulling your belly button in as much as possible. Neither is it keeping your hips and stomach muscles as rigid as possible (which would just lead to back problems).



LARGE PILATES EQUIPMENT

We have introduced props into your workout to help add interest and variation to your exercises. These are all available through sports stores or online, and all are relatively low priced. However, there are larger, studio-based apparatus which you may come across if you go to special classes.

Common Studio Equipment

Some of the commonest apparatus you may come across are the reformer, the cadillac and the chair. Many instructors also use the barrel to help challenge your range of movement. So what do these pieces of equipment do?

The Reformer

This is the most popular piece of Pilates equipment and one you've probably seen before. This was created by Joseph Pilates and remains unchanged today. It is used in or in similar ways to:

- ✔ **The Hundred (pages 92–93)**
- ✔ **Roll Over (pages 97–98)**
- ✔ **Corkscrew (pages 127–28)**
- ✔ **Jackknife (page 139)**
- ✔ **Dart (page 76)**
- ✔ **Curl Ups (page 71)**
- ✔ **Side Twist (pages 145–46)**
- ✔ **Saw (pages 105)**



The Cadillac

This may also be introduced to you as the trapeze table. It looks similar to the pull-down systems you see at many gyms.

This can help you if your spine isn't particularly flexible or you need help stabilizing this area. It is used in or in similar ways to:

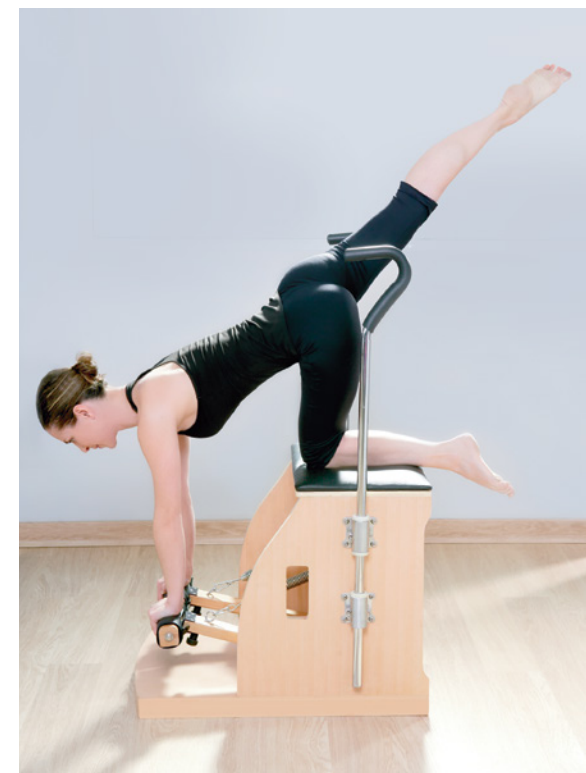
- ✔ **Roll Up (pages 94–95)**
- ✔ **Roll Over (pages 97–98)**
- ✔ **Cat Stretch (page 42)**
- ✔ **Single Leg Stretch (pages 81–82)**
- ✔ **Curl Ups (page 71)**



The Chair

As you might expect, the chair helps to support you while you perform certain movements, particularly those which may challenge your balance. It is used in or in similar ways to:

- ✔ **Inner Thigh Lift (page 15 of this PDF)**
- ✔ **Torpedo (page 121)**
- ✔ **Roll Down (page 60)**



The Barrel

This piece of equipment provides support for the spine and helps you to improve your core strength. It is used in or in similar ways to:

- ✔ **Side Twist (page 145)**
- ✔ **Swan Dive (pages 129–30)**

THE SMALL BALL

Using the ball gives your joints a wonderful massage and support. Take half the air out of the ball to make these movements easier.

Top Tip

Close your eyes and feel the muscles in your neck, shoulders and spine release.



Neck Circles

This movement will help to release any tension around your head and neck area, to improve posture and release any potential headaches.

1. **Lie on the mat** in the starting position. Place your head on the small ball, so that the bottom of the ball sits at the base of your head.
2. **Breathing naturally**, roll your head on the ball in small circular motions, first clockwise and then anti-clockwise.
3. **Begin with large circular movements**, reducing the movements as you go, side to side as though you're saying 'no', then as though you're nodding agreement, then squash the ball into the floor. Go as slowly and controlled as you can.
4. **Repeat** up to **10** times in each direction.



Side Ball Twist

Imagine you're wringing all the water out of the ball as you give your side a wonderful massage and stretch.

1. **Lie on your left side** with the ball under the curve of your waist. Your knees should be on top of each other, feet flexed facing towards the back of the mat.
2. **Breathe in** and, as you exhale, stretch your right leg outwards, toes pointed.
3. **Place your right arm** behind your head, bending at the elbow. Lean on your left arm, which should be propping up your upper body.
4. **Twist forwards**, so that your face moves down towards the mat and your body 'wrigs out' the ball.
5. **Reverse the movement**, so that you're facing behind you.
6. Repeat **three to five** times.
7. **Repeat** on the opposite side.



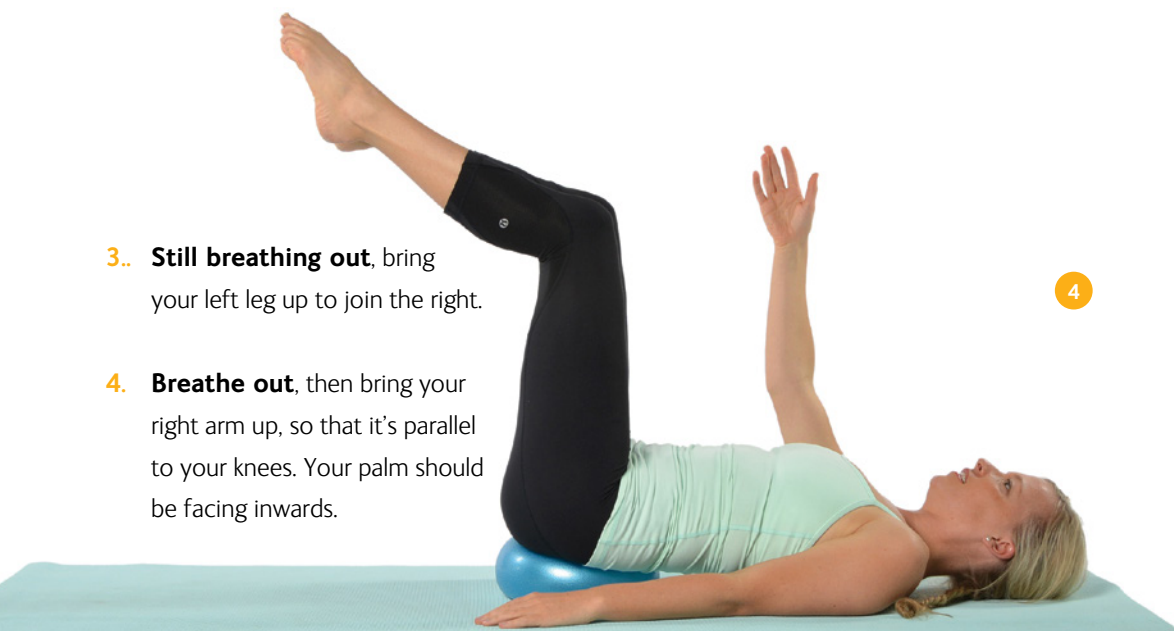
Dead Bug On The Ball

This is similar to your arm work, with the added benefit of support under your lower back.



1. **Lie on the mat** with your knees bent, the small ball under your lower back, palms facing downwards.
2. **Breathe in** and, as you exhale, lift your right leg, keeping your toes pointed and knee slightly bent.





- 3.. **Still breathing out**, bring your left leg up to join the right.
4. **Breathe out**, then bring your right arm up, so that it's parallel to your knees. Your palm should be facing inwards.

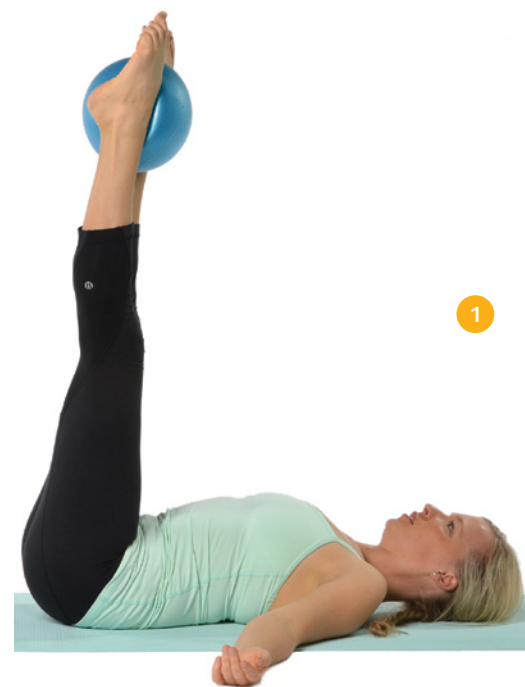


5. **Breathe in** and bring your other arm up so your palms are facing, but without your hands touching.
6. **Hold this position** for the count of five, then return limb by limb to the starting position.

Side To Side With The Ball

This is a very challenging move that works your entire body. Only complete this move if you feel confident in your strength and stability.

1. **Place the ball** between your feet and lift them to the ceiling. Your arms should be facing down, stretched out to your sides.
2. **Slightly sway your legs** to the right, keeping your focus on your core.
3. **Return to the centre**, then repeat on the opposite side.
4. **Repeat six to eight times** in each direction.



THE MAGIC CIRCLE

The magic circle, or toning circle as it's also known, can help to strengthen and work the inner thighs and arms – notoriously difficult areas to tone.

Top Tip

Try to keep the magic circle slightly squeezed the entire time.



Inner Thigh Squeezes

Work those inner thighs by squeezing the magic circle. Make sure that your hips and spine are stable, so that you don't feel the workout in your lower back.

1. **Start by lying on your back** on the mat with your knees bent and your feet planted on the ground.
2. **Place the magic circle** between your thighs about three inches above the knee.
3. **Inhale to prepare** and then exhale as you squeeze the magic circle with your thighs. Inhale as you release the circle and then exhale as you squeeze again.
4. **Be sure** that these repetitions are slow and controlled.
5. **After 10 squeezes**, hold the magic circle slightly squeezed and then begin a set of 16 pulses.
6. **To finish**, squeeze the magic circle as much as you can and hold it for five breaths.

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Roll Up

Similar to the roll up described on pages 94–95, the added use of the magic circle challenges your core and stability.

1. **Place the magic circle** around one foot and lie back on the mat. Breathe out.
2. **Breathe in** and, activating your core, use your stomach muscles to bring you to a sitting position. You should be able to reach the magic circle now.
3. **Lean forwards**, so that you can feel a stretch in the back of your thigh.
4. **Still holding on to the circle**, slowly return to sitting position, straightening your arms as you go. You probably won't be able to return to the full prone position, so go as far as you can.
5. **Return to the sitting position**, using your stomach muscles, not the circle, to pull you upwards.
6. Repeat **three to five** times on the right leg before repeating on the left leg.



Inner Thigh Lift

A wonderful way to stretch your thigh, as well as your lower back and hip joints. Make sure you don't hunch over – keep your posture strong.

1. **Lie on your back** with the magic circle in one hand.
2. **Breathe in and then breathe out**, lifting your right leg to the ceiling, so that as you lift your torso you can place the magic circle around your foot. Make sure that the padded area is around the base of your foot for comfort.
3. **Breathe in and, as you exhale**, return your torso to the mat; your leg should follow your progress, towards your head, as you gently use the magic circle to help yourself downwards.
4. **Repeat five times** on the right leg before swapping over and repeating on the left leg.



Torpedo

A great way to tone those inner thighs as well as reinforcing the stretch and stability in your spinal area.

1. **Lie on your left side** on the mat, with your head resting on your outstretched left arm. The magic circle should be placed between your legs, around your lower calves.
2. **Breathe in to prepare**, feeling your legs take control of the magic circle.
3. **Breathe out** and, from your abdominals, lift your legs towards the ceiling, squeezing the magic circle between your legs as you do so. This is a difficult move, so only lift as far as you can. You may also find that you experience cramp in your leg, so just take it slowly.
4. **Hold this lifted position** for two to three breaths before slowly returning to the starting position.
5. **Repeat five times** before repeating the movement on the other side.

Top Tip

Make sure that you don't slump forwards, so use your top arm to support your body and posture.



Roll Over

This is a great all-over workout – it helps to strengthen your entire body, while challenging the stability of your hips and spine.

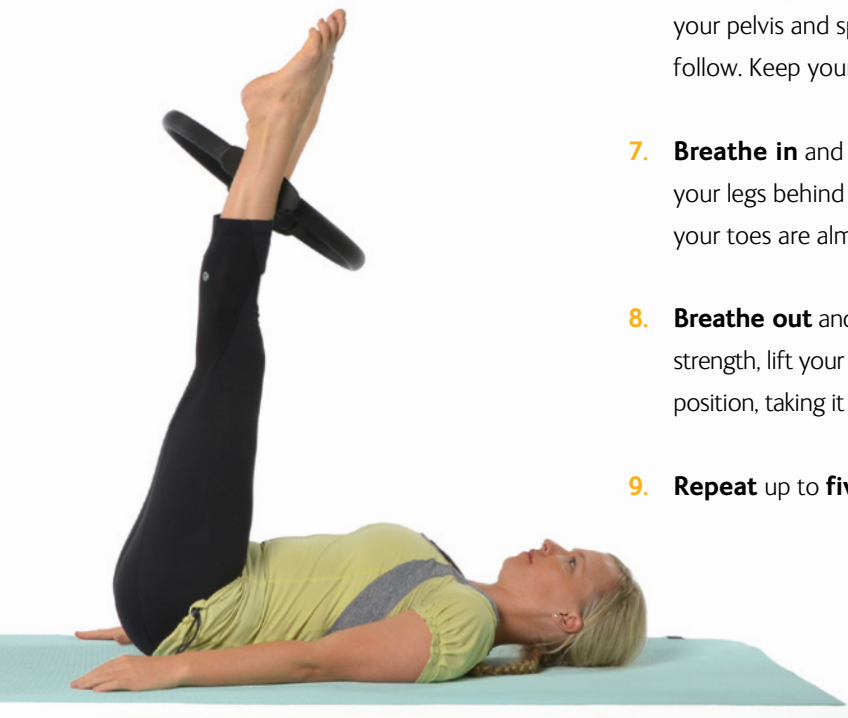
1. **Lie in the starting position.** Take a couple of breaths to prepare.
2. **Stretch forwards** to place the magic circle between your legs, bending your knees up to make it easier. Ensure that the padded sections are comfortably positioned.
3. **Lower your legs**, so that you're back in the starting position, but with the magic circle just above your ankles.
4. **Breathe in** and bring your legs towards the ceiling, keeping your torso still and activated.

Top Tip

Make sure that you're not using your arms or your hands to lift your legs up. They should be loosely placed on the mat, not pressing hard into the floor. Use your abdominal muscles for this movement.



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5. **Breathe out** as your legs continue to lift up and over your head, while keeping the magic circle firmly between your legs.
6. **As you continue** to lift your legs, your pelvis and spine will automatically follow. Keep your movements steady.
7. **Breathe in** and continue to lower your legs behind you until, ideally, your toes are almost touching the mat.
8. **Breathe out** and, using your core strength, lift your legs back to the starting position, taking it as slowly as possible.
9. **Repeat** up to **five** times.

7



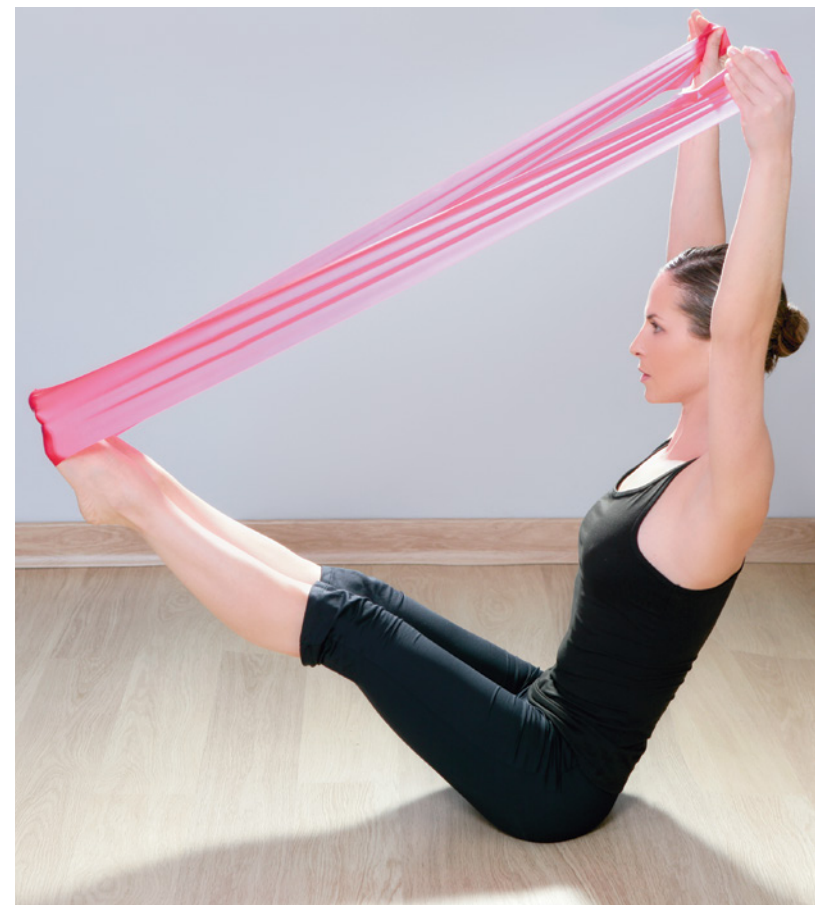
STRETCH BAND

These stretchy, rubbery bands can be used in most exercise classes, and even yoga classes. However, with the introduction of props such as the magic circle, stretch bands do not tend to be used as often as they once were.

A stretch band provides extra resistance to your Pilates workout, and can help to tone your arms, legs, core muscles, lower back, hips and abdominals. If you're doing the workout at home and you don't have a magic circle, you can use a stretch band in most of the magic circle exercises instead, to create a similar workout environment.

Exercises you can incorporate a stretch band into include the following – ask your Pilates instructor:

- ✔ **Standing Leg Press**
- ✔ **Oblique Twist**
- ✔ **Waist Twist (similar to Spine Twist, pages 103–04)**
- ✔ **Roll Down (pages 60–61)**



THE PILATES BALL

The Pilates Ball, also known as an exercise ball or Swiss ball, helps to promote stability and utilize your stomach muscles. It's great for pregnant women, as it takes the pressure away from the lower back.



Side To Side

Open up the hips and relax the lower back with this great stretch, which helps reinforce your stability.

1. **Lie on your back** with your arms at your sides, palms facing upwards. Place a Pilates ball under your thighs, so that your knees are bent.
2. **Breathe in** and enforce the feeling of hugging the ball with your legs, while maintaining a strong and firm core.
3. **Breathe out** and slowly roll your legs to the side. Your right hip will lift slightly, although your torso and head should remain still.
4. **Breathe in** and return your legs to the middle, before rolling towards the right side.
5. **Repeat** the movement **five** to **eight** times.



Hamstring Curl

This is a great move to open up the lower back and increase the flexibility in your knees. If you regularly run or sit at a desk for long hours, this will help to stretch your legs.

- 1. Lie on the mat** with your lower legs placed on the exercise ball. Your arms should be stretched out to your sides. Breathe in to prepare.
- 2. Raise your back and hips** off the floor, while straightening your lower back, knees and hips out in front of you. The ball should move slightly forwards and you'll need to press down slightly on the ball with your feet to control it. Keep your spine and pelvis strong and stable.
- 3. Breathe in**, then, as you exhale, bring the ball back towards your body. Your feet will lower on the ball, so that your feet are flat. Your spine and bottom will lower slightly towards the ground, but not all the way. Hold here and take a couple of breaths.
- Repeat **five** times.

Hold here for three seconds, breathing normally.



Jackknife

This move is a lot of fun, although be warned: you will probably fall off the ball until you master the exercise. It's a great way to massage your torso and open up the muscles in your back.

- 1. Kneel on the mat** with the ball in front of you. Steady it with your right hand.
- 2. Lift yourself up and on to the ball**, resting on your stomach, bending your elbows to balance. Your feet should be flexed. Take a breath in to prepare and to stabilize your position on the ball.
- 3. Breathe out** and push yourself off from your feet, so that your body rides up and over the ball. Reach forwards with your hands to rest your upper body on your outstretched arms. One hand will be slightly in front of the other.
- 4. Hold the position** here and breathe deeply. Using your abdominal muscles, pull your knees in under your chest, before pushing back until your legs are fully extended. Repeat **five to ten** times.
- 5. Return to step 2**, using your hands to push you back.



Pike

One of the most difficult moves, it can take some practice to do this movement without falling off! Keep at it though, and you'll feel a great sense of achievement.

- 1. Begin on all fours**, with your knees bent on the ball, your outstretched arms supporting your upper body. Make sure you don't lock out your elbows. Your feet should be pointed. Breathe in to prepare yourself.
- 2. Exhale and, using your legs**, not your lower back, pull your legs forwards, so that you're in a crouched position in front of the ball, your hips almost directly over your shoulders. Your arms are still straight, but your upper body has lowered slightly towards the floor.



- 3. Inhale as you push** the ball to the back of the mat. Your back should be straight and your legs and toes pointed.
- 4. Exhale and bring the ball forwards again** until your torso is vertical, your shoulders and hips in alignment. Your upper body should be in a handstand position, with your legs lowered on to the ball, resting on your pointed toes.
- 5. Check that your torso is stable**, your abdominals are strong, and your hips and pelvis are stable.
- 6. Inhale and slowly lower yourself** back towards the floor, so that the ball rolls backwards until you're in step 3 position.
- 7. Repeat three to five times.**



THE FOAM ROLLER

These are wonderful pieces of equipment to help detoxify your body and give you a specific body massage. Be warned, they may look soft, but the massage can be quite painful as it works away at any knots and tight spots.



Illiotal Band (ITB) Massage

This is a wonderful massage for the outsides of your thighs. It helps to remove toxins and massage any sore muscles in your thighs.

1. **Place the foam roller** under your ITB (outer thigh). Using your arms, very slowly move your body over the roller and back, allowing it to massage the outer thigh.
2. **Breathe normally** and keep your legs relaxed.
3. This can feel **slightly painful** to start with, but it will ease off.
4. **Repeat** this process for 15–90 seconds.
5. **Swap legs** and repeat on the other leg.

Top Tip

This exercise can be performed with both legs off the ground as per the image, or with the upper leg in contact with the ground (via the foot) in front of or behind the lower leg, whichever is more comfortable.



Gluteal Massage

This may feel slightly painful, but try to remember that it's a good pain as the roller massages your thighs and glutes.

1. **Sit on your roller** with your knees bent, leaning on your arms. Your hands and fingers should be pointing to the back of the mat.
2. **Lift your left leg** and rest your ankle on your right knee, so that your left leg forms a triangle shape.
3. **Use the stability** of the bent right leg to push yourself backwards on the roller until the roller is under your bottom. Return to the start and repeat **five to seven** times. Repeat on the opposite leg.

Top Tip

If this doesn't feel like it's giving your glutes a sufficiently deep massage, you can replace the foam roller with a tennis ball. But be warned! It'll hurt!



Upper Back Massage

Release the tensions of the day and from your workout with this wonderfully relaxing upper-back massage. This is also a good movement to do at the end of the day, even if it's the only Pilates exercise you have time for.

1. **Sit on your mat** with your knees slightly bent and the foam roller placed under your shoulder blades. Your hands should be behind your head, as though you're doing a sit-up.
2. **Slowly lower your upper body** down on to the roller, so that you achieve a lovely curve in your spine.
3. **Using your abdominal muscles**, lift your torso and bottom off the floor.

This will automatically push the roller further back under your shoulders. Hold this position and feel your muscles relax on to the roller.

Top Tip

Take this as slowly as possible. Don't worry if you hear cracking or crunching noises, it's just your spine getting into the correct position!



Massaging Upper Back And Shoulders

This is a continuation of the previous movement, focusing on relaxing the neck, upper back and shoulder muscles.

1. **Repeat the steps** in Upper Back Massage on page 26 of this PDF.
2. **Continue the relaxing movement** by pushing further down on your feet, so that the roller now reaches under your neck and shoulders.
3. **Relax here for a while**, allowing your neck and shoulders to sink into the foam. Lightly roll the roller back and forth under your neck and shoulders to give yourself a mini massage.



Arm Reaches

Massage your spine and open your chest area with this stretch, which helps to remind you to stabilize your spine and pelvis area.

1. **Place your foam roller** so that it's lengthways on your mat.
2. **Lie on the roller**, feet flat on the floor, so that the length of the roller mirrors your spine. Your head should also be resting on the roller.
3. **Lift your arms** above you, keeping your shoulder blades down. Your palms should be facing each other.
4. **Lower your arms** to either side of your body. You'll need to maintain a stable spine and pelvis for this movement so that you don't fall off the roller.
5. **Sweep your arms** backwards until they're behind your head, fingertips (possibly) touching the ground.
6. **Return to** the starting position. Repeat **three to five** times.

Top Tip

You can increase your stability by raising your knees 90 degrees to the mat. Balancing on the roller will test the strength of your core.



Dead Bug Balance

The description says it all. Balancing on the foam roller will take some time, stability and strength. It's a great way to challenge your pelvic stability, while giving the muscles on either side of your spine a massage.

1. **Lie on the foam roller** with your knees bent and in the air at slightly more than a 90-degree angle, arms by your sides.
2. **Breathe in and focus** on balancing on the mat, using your abdominal muscles to push your body on to the roller.
3. **Breathe out** and lift your left arm up, so that your arm is in front of your shoulder.
4. **Continue to exhale** and bring your right arm up so that your palms are facing each other.
5. **Remain here** for a couple of breaths before returning your right arm to the floor, followed by the left arm.
6. Repeat **three to five** times, then swap the order of the arms.

