

**Contact details**

Musculoskeletal physiotherapy Whittington Health  
For Haringey enquiries Tel 020 8887 2412  
For Islington enquiries Tel 020 3316 8840

For more leaflets and self help information please see our website  
[www.whittington.nhs.uk/mskphysiotherapy](http://www.whittington.nhs.uk/mskphysiotherapy)

# Gym ball exercises, how can they help you?

Whittington Health  
Magdala Avenue  
London  
N19 5NF

Phone: 020 7272 3070

Date published: 29/10/2012  
Review date: 29/10/2014  
Ref: Phys/Gym/1  
©Whittington Health

Please recycle 

A patient's guide



.... caring for you 

This leaflet will give you information on gym ball exercises and how they can help you develop your core muscles and help you with your pain.

### Gym balls

An exercise ball/gym ball is made out of soft elastic and filled with air. It is most commonly used in physiotherapy to help you develop your core body muscles, both in the back and abdominals, by giving you an unstable surface to exercise from and challenging your balance.

#### Size guide: ball size: height ratio

45cm gym ball: 5'0" (152cm) or shorter

55cm Gym Ball: 5'1" - 5'6" (155cm - 167cm)

65cm Gym Ball: 5'7" - 6'1" (170cm - 185cm)

75cm Gym Ball: 6'2" (188cm) or taller



### Putting the ball to use

Sitting on a ball instead of a chair is a great way to look after your back. Try to sit on a ball for at least part of your work day, if you have a desk job, or even when watching television. When you sit on a ball, you're forced to sit up with good posture. Also, because the ball rolls around, it keeps your body moving, which help prevent the stiffness and back pain that you can get from being too sedentary.

### Safety considerations

Using a stability ball safely starts with proper inflation and care. Make sure you buy an 'anti-burst' ball. To increase your safety while using an exercise ball:

- maintain the natural curves in your back while exercising.
- increase your stability by placing your feet on the floor shoulder-width apart (or wider for better balance).
- put a mat in front of the ball to act as a cushion in case of a fall.
- use a wall behind the ball to keep the ball from rolling out from underneath you and to prevent you from falling directly to the floor should the ball slip forward.

### Recommended websites for exercise progression:

[www.spine-health.com](http://www.spine-health.com)

[www.ball-exercises.com](http://www.ball-exercises.com)

[www.sportsinjuryclinic.net/rehabilitation-exercises/swiss-ball-gym-ball-exercises/](http://www.sportsinjuryclinic.net/rehabilitation-exercises/swiss-ball-gym-ball-exercises/)

If you are unsure about when and how to progress you can check with your physiotherapist.

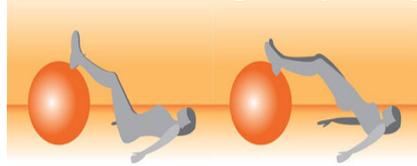
### Progressing your exercises

The difficulty of exercises using an exercise ball will vary for each person. Below are some ideas you can try to progress. If you need to sit next to a wall or a chair for support. Ask your physiotherapist for more ideas, specific to your posture type/condition.

### Seated march – improving your core stability and balance

Sit on the ball you back straight and pull your lower tummy in. Begin a slow march, alternating lifting the right foot and then the left. As you get comfortable with the movement, lift the knees higher and march faster. Repeat three x 20 repetitions. To challenge yourself further, you can then try lifting opposite arm and opposite leg at the same time.

### Bent knee bridge: improving gluteal and core strength



Lie on your back with your knees bent and your heels resting on top of the ball. Spread your arms out to your sides. Lift your hips off the floor while squeezing it, and push your hips toward the ceiling. Pause at the top of the movement, then go back to the starting position.

### Opposite limb extension: improving lower back, buttocks and hamstring strength



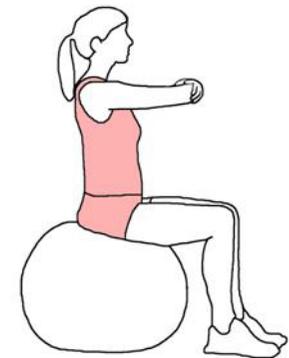
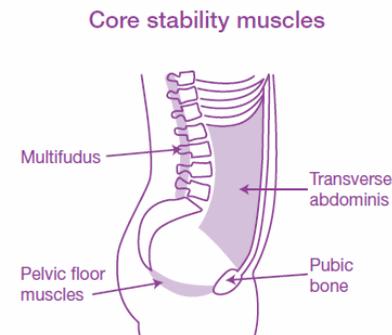
Lie with your stomach on the ball and stabilize yourself with your toes and hands. While looking down at the floor, extend your left arm and your right leg simultaneously, hold for two seconds, and return to starting position. Repeat with the opposite arm and leg.

### Have you got the right size ball?

Gym balls come in a variety of sizes. You can check with your physiotherapist before purchasing a ball to make sure you get the right size. A good guide is that when you are sitting on the ball your hips and knees should be parallel to the floor at a 90° angle and your feet should be flat on the floor.

### Gym balls and core stability

Your core muscles have to work constantly to help you maintain a good posture, whether this is sitting, standing, moving or lifting. The key role of the core is to support the upper body, and prevent injury to the spine. Having weaker core muscles may increase your chances of getting back pain.



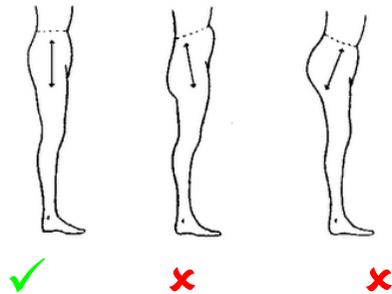
Gym ball exercises are a great way to help strengthen your core muscles. It provides an unstable surface on which you have to balance, making your muscles work hard to stop the ball from moving around underneath you. The difficulty of the exercises you can perform using the ball can range from easy to very hard, challenging your core muscles in different ways. You should always start off trying the easy exercises and then increasing the difficulty levels, making sure you feel comfortable completing the lower level exercises before you progress.

The difficulty of the exercises you can perform using the ball can range from easy to very hard, challenging your core muscles in different ways. You should always start off trying the easy exercises and then increasing the difficulty levels, making sure you feel comfortable completing the lower level exercises before you progress. If you are unsure about when and how to progress you can check with your physiotherapist.

### Using the gym ball when you have back pain

The ball is a great piece of equipment to use if you have back pain. Exercises on the ball are designed to help you move your spine in a gentle and controlled way, giving nourishment to the joints and discs that need it, by increasing the blood flow to the area. Finding a 'neutral pelvis' is important when you have back pain, as if your pelvis tips too far forwards, or too far backwards, it can cause extra stresses on to your spine and into your hips and legs.

Exercises on the ball help you find that neutral pelvis, and develop the muscles needed to help you maintain it in every day life.



### Early exercises, pelvic isolation with the exercise ball

Rock back-and-forth - sit on the exercise ball, with your feet flat on the floor, with arms to the sides or on hips. Slowly do a pelvic tilt, pulling stomach muscles in and moving hips slightly toward the front to flatten the small of the back. Return to the neutral position on the ball. Arch small of the back slightly and move hips slightly toward the back. Return to neutral position on the exercise ball. When comfortable with these movements, do them continuously back and forth for 10 repetitions.

Rock side-to-side – starting position is the same as above. Slowly shift weight slightly to the right. Return to the neutral position. Slowly shift weight to the left. Return to neutral position on the exercise ball. When comfortable with these movements, continue to do for 10 repetitions.

Circles - for a more advanced exercise, start in the front/pelvic tilt position and slowly shift weight around in a circular motion, three times clockwise and three times counterclockwise.

