

Physiotherapy Department

Women's dynamic control physiotherapy class

This booklet explains what happens in the class and how exercise can help with your back or pelvic pain in pregnancy. It also gives advice on exercising safely in pregnancy and returning to exercise after having your baby.

We have also included a copy of the exercises at the back of the booklet to help when you are practising exercises at home.

Please ask the physiotherapist during the class if you have any questions.

What should I expect from the class?

It is a one-hour Pilates circuit-based exercise class and cool down. The class is once a week for six sessions.

It includes 10 to 12 exercises that have been chosen to improve mobility in the upper back and improve weakness that is common in lower back and pelvic pain conditions.

The class is supervised by chartered physiotherapists who will check that you are doing exercises correctly and safely.

All exercises have been chosen as they work to exercise your back in a safe way during and after pregnancy. **However, if you feel that your pain is worsening when doing the exercise please tell the physiotherapist.** We will be able to correct your exercise technique or modify the exercise.

Why have I been referred?

Mild to moderate exercise is good for you and your developing baby and in the recovery process after you give birth (postnatally). Nearly all research agrees that exercises are the best treatment for people who have had back problems for some time. Evidence has shown that exercises can reduce pain and improve function. Other kind of treatments can be helpful for a short time, but doing exercise helps in the long term.

How does exercise help?

The muscles that control movement in the lower back and pelvis can be divided into two groups called the 'local' and 'global' muscles.

Your 'local' muscles (often called your 'deep' or 'core' muscles) surround your spine and pelvis closely. Normally these muscles will switch on just before movement in order to protect the spine. The main muscles that make up this group are called **transverse abdominus, multifidus and pelvic floor muscles**.

The 'global' muscles (sometimes called 'slings') sit closer to the surface of your skin. These muscles, along with the local muscles, will work together to give the spine even more support while you are moving. This is why we will be getting you to do exercises that work so many different muscles, often at the same time.

Recent research has shown that when we have pain there is a change in how we control these back muscles. For example, the deeper back muscles seem to be less active in people with long-standing low back pain. Having poor muscle control could worsen the condition. This is because a person would be unable to 'fine-tune' their muscles, which could lead to less spinal support during movement. However, research has shown that exercises that focus on the control of the deeper back muscles can improve both pain and function. It may also prevent the pain from recurring.

Therefore, the aim of this class is to teach an exercise programme that will improve the control of your back and pelvis while you move.

Other benefits of exercise

Exercise can improve posture, flexibility, strength, functional techniques, endurance and fitness, all of which help in the prevention and treatment of pain and are good for your developing baby.

Should I do exercises outside of the class?

Yes. To get the best results you should also be doing exercises at home. If your physiotherapist gave you different exercises before you started the class, continue with those. However, we also suggest that you add exercises taught to you during the class. You may want to do all of them another two or three times a week or you might pick up a few and do them daily.

Can I do other exercise?

Antenatal women – Mild to moderate exercise is good for you and your developing baby and most healthy women will find a programme of moderate exercise beneficial. Pregnancy can be the perfect opportunity to improve your level of fitness. Walking and swimming (or aquanatal classes) are excellent. Other low-impact exercises like a static bike, gym ball, core stability exercises or chair-based exercises with small weights or therabands are also good.

As your pregnancy progresses, do continue with a form of familiar exercise and remember that it is natural to slow down. Any activity that produces significant pain should be avoided.

Postnatal women – Cardiovascular exercise (such as walking) for 5-20 minutes, three to five times a week can improve aerobic fitness and lower back/pelvic pain. It is advisable to pace your return to normal sporting activity as you will be starting at a lower level than what you worked at before your pregnancy, and then slowly build up.

If you have a DRAM (separation of abdominal muscles) then ensure you discuss exercises with your physiotherapist before progressing on your own. The exercises you complete in this class are all safe for you to complete.

What happens when the classes finish?

Once you have completed the class you can continue doing the exercises at home yourself. This is because it takes a few months before you get favourable results and evidence shows that continuing with exercise may reduce the risk of your back pain coming back.

The exercises

Over the next few pages we have added the exercises that you will do in the women's dynamic control class. All the exercises have detailed descriptions next to them to help you. However, if you are unsure on how to do the exercises then please ask the physiotherapist in the class to check your technique.

Terms you may hear in the class when we are teaching exercises are **spinal neutral**, **squeeze pelvic floor muscle** and **lower abdominal activation**.

What is spinal neutral?

Spinal neutral is the best position in which you can 'switch on' your deep tummy muscles. The position is found by tilting your pelvis forwards and backwards and finding the mid-position.

How to squeeze your pelvic floor muscle

Your pelvic floor muscle extends from your coccyx (tailbone) to the pubic bone at the front. It provides the floor to your pelvis (the bottom part of your abdomen/tummy) and supports the contents of your pelvis: your bladder, uterus and back passage.

Close and draw up your back passage, as if you are trying to stop passing wind or stop yourself passing urine. Make sure that you do not contract your buttock muscles while you do this.

What is lower abdominal activation?

Once you find your neutral spine position then you can contract your lower abdominal muscles.

Antenatal women:

- Place your hands around the lower bump.
- Draw in your lower stomach muscles while keeping your back still. You may find it useful to think of lifting up your pelvic floor.
- You may feel your bump rise. Hold the contraction while continuing to breathe normally.

Postnatal women:

- Place your fingers on your lower abdominal muscles
- Gently contract your lower abdominal muscles so you feel gentle tension underneath your fingers, while keeping your back still.
- You may find it easier if you think of contracting your pelvic floor muscles.
- Hold the contraction while continuing to breathe normally.

Chest stretch with band



Starting position:

Standing feet shoulder-width apart, shoulders back, pelvis in a neutral position and knees soft. Hold on to band with each hand.



Action:

- Lift arms up above your head.
- Bend elbows to lower band behind head.
- Extend elbows so band is above your head.
- Lower arms to start position.

Cat stretch



Starting position:

Four-point kneeling. Elbows soft, knees hip-distance apart under hips, pelvis and back in neutral and neck long.



Action:

- Arch upper back, tucking tailbone downwards to floor and tucking head towards chest, into a C shape.



- Then arch lower back lifting head and neck up towards ceiling.

Spine twists on ball



Starting position:

Sitting on a gym ball pelvis and lower back in neutral. Hands in prayer position with hands rested at sternum, shoulders relaxed neck long.



Action:

- Rotate trunk. Allow head, neck and arms to follow movement, keeping pelvis forward.
- Hold the stretch.
- Rotate trunk back to midline, allow head, neck and arms to follow as a block.

Gym ball row



Starting position:

Sitting upright on the gym ball holding the end of the band in each hand. Ensure your elbows are at 90 degrees and your palms facing each other.



Action:

- Maintain your body position and pull your hands back towards your waist slowly, squeezing your shoulder blades together and return to the start position.

Pillow squeeze



Starting position:

Lying on your back on an incline, back pressed flat for neutral spine, knees bent and pillow between the knees. Arms resting beside your body.

Action:

- Gently squeeze the pillow with your inner thighs and draw up your pelvic floor muscles.
- Hold the squeeze for 5 seconds then relax.

Clam



Starting position:

Side lying, hips bent to 45 degree angle knees to 90. Top hand resting on the floor (for stability) or relaxed on side. Keep a towel between your knees and the band tied around your knees. Lift your waist by dropping your hip down away from your shoulder.



Level one action:

- Initiate the movement of lifting your knee upwards against the resistance of the band.
- Hold for five seconds.
- Relax.
- Repeat on opposite side after one minute.

Level two action:

- Keep your feet together and slowly lift the top knee without rotating the pelvis.
- Only go as far as comfortable
- Slowly return.
- Repeat one minute on each side.

Single leg stretches



Starting position:

Four-point kneeling position with neutral spine.



Level one action:

- Slide one foot backwards along the floor as far as control can be maintained in line with the hip.
- Slowly return to start position.
- Repeat by alternating legs.



Level two action:

- Tie band around the extended foot and hold the band in the same hand.
- Slide foot with band backwards along the floor as far as control can be maintained in line with the hip, while keeping both hands on the mat.
- Slowly return to start position.
- Change legs after 1 minute.



Level three action:

- Tie band around the extended foot and hold the band in your opposite hand.
- Slide foot with band backwards along the floor as far as control can be maintained in line with the hip, while extending your opposite arm with the band in a superman fashion.
- Slowly return to start position.
- Change legs/arms after one minute.

Wall squat



Level one starting position:

Standing with back against wall, flattening the lower arch of your back into the wall. Feet hip-width apart, knees soft and hands rested on hips or thighs.

Level one action:

- Bend knees into a squat position by sliding down the wall, maintaining lower back flat against wall and parallel alignment of knees.
- Hold for two seconds.
- Straighten knees by sliding up to starting position while maintaining lower back flat against wall.



Level two starting position:

Position gym ball into mid to lower back, feet hip distance apart, knees soft and hands rested on hips or thighs.

Level two action:

- Bend knees into a squat position, maintain parallel alignment of knees.
- Hold for two seconds.
- Straighten knees, to starting position, while maintaining lower-back flat against ball.

Triceps in standing



Starting position:

Stand with one foot in front of the other with the front knee bent and the rear leg straight. Lean your body forwards with a straight back so your nose is over your front toes. Holding a weight in both hands, elbows bent to 90 degrees.

Action:

- Slowly straighten your elbows then return to the start position maintaining your back and leg positions
- Repeat continuously.

Biceps curls on gym ball



Starting position:

Sitting upright on a gym ball holding a weight in each hand, palms facing up with arms resting by your sides.

Action:

- Bend the elbows keeping them a small distance from your shoulders.
- Slowly extend your elbows to the starting position.
- Repeat.

Inner thigh lifts



Starting position:

Side lying with your bottom leg straight and your top leg at 90 degrees, with knee resting on a pillow, maintaining neutral spine.

Action:

- Slowly lift the bottom leg up towards the ceiling then slowly lower it to hover just above the mat.
- Repeat continuously.

Pelvic tilts on gym ball



Starting position:

Sitting on gym ball, feet apart and resting flat on the floor. Keep a neutral spine position.

Action:

- Slowly stick your bottom out, chest out and sit up tall to tilt your pelvis forwards.
- Then slowly tuck your bottom underneath you rolling the pelvis backwards and tucking your tummy up to your chest.
- Repeat slowly from position to the other continuously.

Thread the needle



Starting position:

Four-point kneeling, pelvis in neutral and flat back posture.



Level one action:

- Reach one arm under opposite shoulder rotating your trunk. Allow your head and neck to follow the movement. Hold the stretch for 10 seconds while breathing normally.
- Bring the arm back to four-point kneeling position and repeat on the other side.



Level two action:

- Same as above, but rest the back of your palm on the foam roller.

Arm scissors



Starting position:

Standing with the gym ball against the wall and your back against the ball situating it between your shoulder blades. With your elbows straight, palms facing and arms at shoulder height.



Action:

- Slowly lift one arm up towards the ceiling and the other arm down towards the floor, maintaining straight elbows.
- Repeat by switching the position of your arms in a slow marching fashion.

Appointments at King's College Hospital

We have teamed up with King's College Hospital in a partnership known as King's Health Partners Academic Health Sciences Centre. We are working together to give our patients the best possible care, so you might find we invite you for appointments at King's College Hospital. To make sure everyone you meet always has the most up-to-date information about your health, we may share information about you between the hospitals.

Contact us

If you would like further information about this leaflet, or have any questions, then please contact the physiotherapy team, call 020 7188 5084.

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit www.guysandstthomas.nhs.uk/leaflets

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e: 020 7188 8801 at St Thomas' **t:** 020 7188 8803 at Guy's **e:** pals@gstt.nhs.uk

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