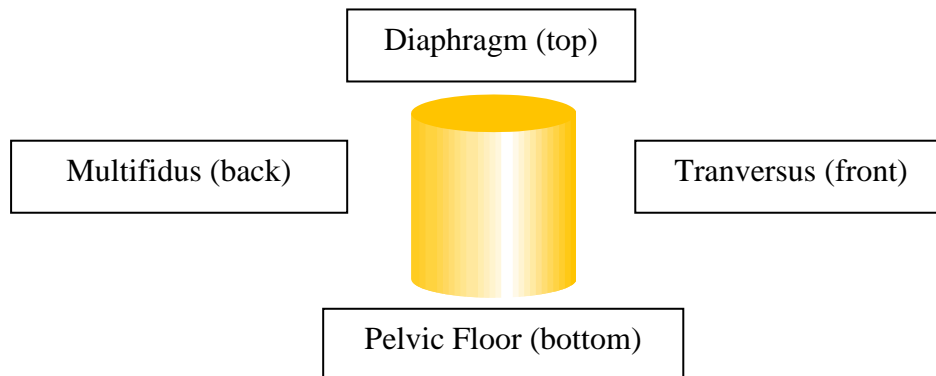


INTRODUCTION TO PILATES/ CORE STABILITY

The goal of Pilates is to improve the strength of the muscles surrounding your spine that are involved in your “core stability.” These muscles provide stability to your spine to support your discs and joints helping to prevent injury.

If you imagine what a coke can looks like then it helps to imagine how these muscles work to provide stability;

- 1) Your pelvic floor is the bottom of the coke can.
- 2) Your diaphragm is the top of the coke can.
- 3) Your Transversus sits at the front of the coke can.
- 4) And the Multifidus muscles sit at the back of the coke can.



The muscles work in conjunction with connective tissue (fascia) by acting as a natural corset. In people with back pain these muscles still work but the timing is not as good as it should be.

This booklet and a Pilates trained physiotherapist will teach you how to recruit these muscles, make you more aware of good posture and empower you to be able to follow Pilates exercises at home.

Pilates involves five key principles:

- 1) Breathing – You should feel the lower ribs expand sideways as you breathe in.
- 2) Centering - Learning how to find the spine neutral position and how to engage the appropriate muscles (see below)
- 3) Ribcage placement – Not allowing the ribcage to lift up during the exercises.
- 4) Shoulder blade placement - keeping shoulder blades down and back.
- 5) Head and neck position – Avoiding poking the chin by lengthening the back of the neck.

Guiding principles:

Pilates exercises are best done in a calm and quiet environment to enable the body and mind to focus. Throughout the exercises you should focus on maintaining neutral spine with slow and controlled quality of movement.

These exercises should not provoke your symptoms, if they do re-review your 5 key principles. If this still persists please discuss with your Pilates Physiotherapist.

Finding spine neutral

Lying on your back with bent knees, feet hip width apart with arms by your side **Imagine** you have a saucer of milk sitting on your tummy, tip the milk towards your nose and flatten your back into the mat. Then tip the milk towards your toes and arch your back. Repeat, and stop when the milk in the saucer would be level. You should just be able to place your fingers between the floor and the small of your back.



“Neutral”

Setting your “Centre” with your abdominal muscles.

Lie in the neutral spine (see above). Place your fingers on the bony points of your hips. Move your fingers across and down 4cm. This is the area of the muscles to be worked. Breathe in and breathe out fully. As you breathe out slowly and gently pull in the muscles below your belly button, as if you were tightening a belt or your trousers. You should feel gentle tension under your fingertips. Hold this position and breathe normally.

Setting your “Centre” with your pelvic floor muscles.

Lie in the neutral spine (see above). Place your fingers on the bony points of your hips. Move your fingers across and down 4cm. This is the area of the muscles to be worked. Breathe in and breathe out fully. As you breathe out imagine that you are trying to stop yourself going to the toilet to pass urine. You may feel gentle tension under your fingertips. Hold this position and breathe normally.



EXERCISES

Always start with level 1, when ready progress slowly to level 2.

These exercises should be performed daily to achieve maximum benefit.

SINGLE LEG STRETCH

Level 1

Find spine neutral.
Set your centre.
Breathe in to prepare.
Breathe out and slide one heel along the floor away from your bottom.
Breathe in and slide the along the floor towards your bottom.

Repeat 10 times alternating legs.



Level 2

Find spine neutral.
Set your centre.
Breathe in to prepare.
Breathe out and lift 1 leg up so that your hip and knee is at 90°.
Straighten your leg as much as you can.
Bring the knee back to 90°, then lower to the floor.

Repeat 10 times alternating legs.



Watch Points

Make sure the spine does not arch or flatten during the exercise (maintain your neutral spine).
Make sure your upper body stays relaxed.

HUNDREDS

Find spine neutral.
Set your centre.
Breathe in and out for 10 breaths.
As you breathe in and out gentle pulse your arms up and down by your sides.

Repeat 10 times.



HIP TWIST

Level 1

Find spine neutral.
Set your centre.
Breathe in to prepare.
Breathe out and slowly let 1 knee drop out to the side.
Breathe in and draw the knee back to the middle.

Repeat 10 times alternating legs.

Level 2

Find spine neutral.
Bring your knees together.
Set your centre.
Breathe in to prepare.
Breathe out and roll both knees to the right.
Let the pelvis and low back gently roll with it.
At the same time let your head gently roll to the left.
Breathe in.
Breathe out and roll your legs and head back to the middle.

Repeat 10 times alternating sides.

Watch Points

Make sure the back and pelvis stay still and your other leg doesn't move.



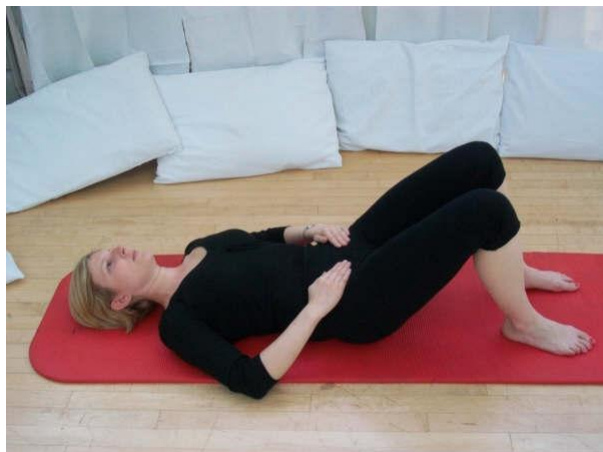
SHOULDER BRIDGE Level 1

Find spine neutral.
Walk your heels a small distance towards your bottom.
Set your centre.
Breathe in to prepare.
Breathe out and gently roll the bottom of your back into the floor.
Squeeze your bottom muscles as you lift it off of the floor.
Gently roll the rest of your back up bone by bone until you are resting on your shoulder blades or to where you can manage.
Breathe in and hold the position.
Breathe out and gently roll down bone by bone, starting with the top of your spine.

Repeat 10 times.

Watch Points

Make sure your hamstrings (muscle at back of thigh) are not over working.
Stop the movement before any weight is put through the neck or head.



SHOULDER BRIDGE Level 2

Level 2

Find spine neutral.
Walk your heels a small distance towards your bottom.
Set your centre.
Breathe in to prepare.
Breathe out and gently roll the bottom of your back into the floor.
Squeeze your bottom muscles as you lift it off of the floor.
Gently roll the rest of your back up bone by bone until you are resting on your shoulder blades or to where you can manage.
Breathe in and hold the position.
In this position lift 1 heel up off the floor, then lower.
Repeat on other side.
Breathe out and gently roll down bone by bone, starting with the top of your spine.



Level 3

Find spine neutral.
Walk your heels a small distance

towards your bottom.
Set your centre.
Breathe in to prepare.
Breathe out and gently roll the bottom of your back into the floor.
Squeeze your bottom muscles as you lift it off of the floor.
Gently roll the rest of your back up bone by bone until you are resting on your shoulder blades or to where you can manage.
Breathe in and hold the position.
In this position lift 1 leg up and stretch it away from you, then lower back to the floor.
Repeat on other side.
Breathe out and gently roll down bone by bone, starting with the top of your spine.

Repeat 10 times.

Watch Points

Make sure your hamstrings (muscle at back of thigh) are not over working.
Stop the movement before any weight is put through the neck or head.



DOUBLE LEG STRETCH

Find spine neutral.
Set your centre.
Breathe in to prepare.
Breathe out and lift both arms up to 90°.
Breathe in
Breathe out and slowly lower your arms above your head.
At the same time slide one heel along the floor away from your bottom.
Breathe in and circle your arms out to the side finishing with them above you.
At the same time slide your heel back to your bottom.

Repeat 10 times alternating legs.

Watch Points

Do not allow your back to arch.
Do not overwork the muscles around your neck.



CLAM

Level 1

Lie on your side.
Have your underneath arm stretched out under your head.
Hips bent to 45° and knees bent to 90°. Shoulders and hips should feel stacked on each other.
Gently point your top hip towards your toes to give a small gap at your waist.
Centre yourself.
Breathe in to prepare.
Breathe out and lift your top knee up whilst keeping your heels together.
Breathe in and lower your top leg.

Repeat 10 times

Level 2

Lie on your side.
Have your underneath arm stretched out under your head.
Hips bent to 45° and knees bent to 90°. Shoulders and hips should feel stacked on each other.
Gently point your top hip towards your toes to give a small gap at your waist.
Centre yourself.
Lift both feet in the air a small distance, ensure the rest of your posture stays the same.
Breathe in to prepare.
Breathe out and lift your top knee up whilst keeping your heels together.
Breathe in and lower your top leg.

Repeat 10 times

Watch Points

You should only feel the movement coming from your hip.
Do not allow yourself to roll backwards.

SIDE KICK

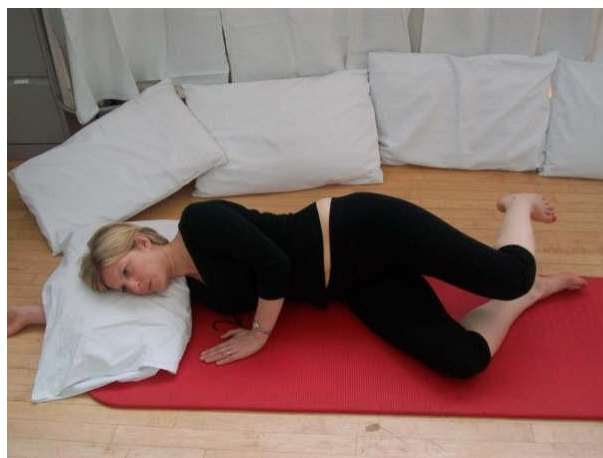


Lie on your side.
Have your underneath arm stretched out under your head.
Hips bent to 45° and knees bent to 90°. Shoulders and hips should feel stacked on each other.
Gently point your top hip towards your toes to give a small gap at your waist.
Centre yourself.
Breathe in to prepare.
Breathe out and lift your top leg up to hip height.
Smoothly move the leg forward from the hip joint, keeping the bent.
Breathe in and smoothly move the leg backwards then lower down to the start position.

Repeat 10 times

Watch Points

You should only feel the movement coming from your hip.
Do not allow yourself to roll backwards.
Do not tense the muscles around your neck and shoulders.



ARM OPENING

Lie on your side.
Have both your arms stretched out in front of you.
Hips bent to 45° and knees bent to 90°. Shoulders and hips should feel stacked on each other.
Gently point your top hip towards your toes to give a small gap at your waist.
Centre yourself.
Breathe in to prepare.
Breathe out and lift your top arm up to the ceiling.
Let your upper body twist so that you feel your chest opening.
Allow your head to follow the movement.
Breathe in and hold the position.
Breathe out and bring your upper body and arm back to the start position.

Repeat 10 times.

Watch Points

Do not allow your pelvis to roll backwards.
Do not lift your head off the floor.



SWAN DIVE

Lie on your stomach with legs out straight and hip width apart.
Bend your arms up to the side of your shoulders.
Rest your forehead on a small cushion or folded towel.
Imagine making a small double chin and keep the back of your neck long.
Centre yourself.
Breathe in to prepare.
Breathe out and gently lift your breastbone off of the floor.
Breathe in and hold the position.
Breathe out and gently lower yourself down.

Repeat 10 times.

Watch Points

Make sure you keep your neck still throughout the movement.
Do not over work the muscles around the tops of your shoulders.



BREAST STROKE

Lie on your stomach with legs out straight and hip width apart.
Place your arms by your sides.
Rest your forehead on a small cushion or folded towel.
Imagine making a small double chin and keep the back of your neck long.
Centre yourself.
Breathe in to prepare.
Breathe out and glide your shoulder blades back and down.
At the same time gently hover your arms off the floor.
Breathe in and hold the position.
Breathe out and gently lower your arms and shoulder blades down.

Repeat 10 times.

Watch Points

Make sure you keep your neck still throughout the movement.
Do not over work the muscles around the tops of your shoulders.
Do not arch your lower back.



SPINE TWIST

Sit up tall.
Find spine neutral.
Fold your arms across your chest.
Set your centre.
Breathe in to prepare.
Breathe out and twist your upper body to the left.
Breathe in and hold the stretch.
Breathe out and twist back to the start position.
Repeat to the right side.

Repeat 10 times.

Watch Points

Do not slump down in this position.



ROLL UP

Sit up tall on top of your sitting bones on a chair or a cushion.
Find spine neutral.
Place 1 thumb in your belly button and the other thumb on the bottom of your breast bone.
Set your centre.
Breathe in to prepare.
Breathe out and roll backwards off the sitting bones. You will gently curve the bottom of your back.
The distance between the 2 thumbs should stay the same.
Breathe in and roll forwards back to the start position.

Repeat 10 times.

Watch Points

Only the bottom of the spine should move – your mid back and neck should stay long.



ONE LEG CIRCLE

Find spine neutral.
Set your centre.
Breathe in to prepare.
Breathe out and lift 1 leg, bending the hip and knee to 90°.
With your foot draw a small circle in a clockwise direction.
Repeat 8 -10 times.
Breathe out and lower the leg down to the start position.
Repeat 8 -10 times in an anti clockwise direction.
Repeat with the opposite leg.

Watch Points

Make sure you keep your neutral spine and do not allow your pelvis or back to move.

