

BASIC PRINCIPLES

There are Five Basic Principles that provide the foundation of STOTT PILATES™ and are key to performing the exercises safely and effectively. They show you how to breathe properly and position your body through the exercises. These principles will make you more aware of your 'core' and help you get better results from your workout.

It is important to start any exercise in a position that is tension-free. If there is already tension before starting, too much stress will be created once movement begins.

This doesn't mean complete relaxation, though. For example, when lying on your back with pelvis and spine neutral, a slight activation of the muscles will be necessary to maintain pelvic, rib cage and spinal placement.

After learning STOTT PILATES™ Basic Principles, you will be on the way to achieving a neutral, tension-free position. You will be more aware of your body, and will start to carry yourself differently. You may even stand a little taller!

Proper breathing ensures that enough oxygen is flowing to the muscles you are using, and helps prevent unnecessary tension. A relaxed and full breath pattern encourages focus and concentration.

The STOTT PILATES breath pattern involves an expansion of the rib cage out to the sides and back without allowing the shoulders to lift. It is also important to breathe into the lower part of your lungs, because there is more efficient gas exchange.

The breath pattern used in STOTT PILATES will help engage your deep abdominal muscles and stabilize your torso.

BREATHING PRINCIPLE EXERCISES

1. Notice Natural Breath Pattern

Lying on back, breathe smoothly, noticing natural breath pattern.

Is breath going into abdominal cavity, upper chest, sides of rib cage, back of rib cage?

2. Breathing Flexed Forward

This encourages breathing into the sides and back of the rib cage.



STARTING POSITION

Sit in an upright position, arms relaxed.
To prepare inhale...



EXHALE initiate from top of head and curve forward, relaxing over legs.



While flexed forward...

INHALE through nose, feeling sides and back of rib cage expand.

EXHALE through pursed lips, allowing rib cage to close.

Complete 3–5 repetitions



On last exhale...

initiate from tailbone and roll up to starting position.

STOTT PILATES emphasizes stabilization of the pelvis and lumbar spine (lower back) in either a neutral or an imprinted position:

Neutral Placement: Maintains the normal curve of the lower back. When lying on your back, front of hip bones and pubic bone should lie parallel to the mat, and your lower back should not be pressed into the mat. This is the most stable and optimal shock-absorbing position for your back.

Make sure you're not arching your back to achieve neutral alignment. While breathing and engaging abdominals in this position no strain should be felt through the lower back. If you feel muscle tension, shift the pelvis to a more comfortable position.

When to use: This is the ideal position when one or two feet are secure on the mat or other equipment.

Imprinted Position: The lower back is moving toward the mat. Avoid pressing your lower back all the way into the mat or tilting the pelvis too far by overusing the abs or glutes. Note that the amount of contact between the lower back and the mat is different for everyone.

When to use: An imprinted position should be used to ensure stability of the lower back when both feet are lifted off the mat.

PELVIC PLACEMENT PRINCIPLE EXERCISES

Starting Position for Exercises 1-3

Lying on back, pelvis and spine neutral. Knees bent, feet hip-distance apart on mat.

Arms long by sides, palms down.

1. Rocking Pelvis

Rock pelvis, alternating arching lower back off floor and pressing lower back into floor. Neutral placement will be somewhere between the two.

2 Neutral to Imprint

Note: Arms are raised in photos to show spinal position.



INHALE stay.



EXHALE contract abs
and imprint spine.



INHALE maintain imprinted position while inhaling.



EXHALE return to neutral.

3. Leg Lifts

To prepare inhale, imprint lower back...

EXHALE lift one foot off mat, maintaining imprint.

INHALE return foot to mat.

Repeat with other leg.

Can also be done lifting legs consecutively (lift one leg, then other to join it).

The rib cage position affects the alignment of the thoracic (upper) spine. When lying on your back in a neutral position, maintain the sense of the weight of the ribs resting gently on the mat (i.e. maintain the normal curve of the upper back). Don't lift off or push your rib cage into the mat. Pay particular attention to the placement of your rib cage when inhaling or while performing arm movements overhead.

Using the breath pattern described below and engaging your abs will help stabilize the rib cage. Emphasize breathing into the back and sides of your rib cage during inhalation. When you exhale, allow your ribs to soften, with the two sides gently closing in toward each other.

Breath Pattern

INHALE through nose, feeling sides and back of rib cage expand.

EXHALE through pursed lips, allowing rib cage to close.

RIB CAGE PLACEMENT PRINCIPLE EXERCISE

Arm Raises

STARTING POSITION

Lying on back, pelvis and spine neutral.
Knees bent, feet hip-distance apart on mat.

Arms long by sides, palms down.



INHALE reach arms to ceiling.



EXHALE reach arms overhead only as far as abdominal connection can be maintained and rib cage can remain in contact with mat.



INHALE reach arms to ceiling.



EXHALE lower arms down by sides.



Stabilizing your scapulae [shoulder blades] on the back of the rib cage is as important as contracting your abs during the initiation of every exercise. This will help you avoid strain through your neck and upper shoulders.

To achieve proper placement, a sense of width should be maintained across the front and back of the shoulders. Make sure you neither allow your shoulders to round forward too much nor squeeze together toward the spine. Shoulders should not be lifted too far, or over-depressed. Placement should be somewhere between these two positions.

The shoulder blades have a large range of motion, so remember to maintain stability (but not rigidity) at all times: a) when the spine is neutral and the arms are resting; b) when the spine is moving, and; c) when the arms are moving in any direction.

SHOULDER STABILITY PRINCIPLE EXERCISES

1. Scapula Isolations (Protraction & Retraction) lying down



STARTING POSITION

Lying on back, pelvis and spine neutral. Knees bent, feet hip-distance apart on mat. Arms long, reaching to ceiling, palms facing in.



INHALE reach fingers towards ceiling allowing shoulder blades to lift off mat. A widening between shoulder blades will occur - this is protraction.



EXHALE bring shoulder blades back to starting position, widening across front of collarbone. Try to keep space between the hands constant.

Repeat 3–5 times.



STARTING POSITION

Lying on back, pelvis and spine neutral. Knees bent, feet hip-distance apart on mat. Arms long, reaching to ceiling.



INHALE bring shoulder blades closer together and toward mat. A widening across front of collarbone will occur - this is retraction. Try to keep space between the hands constant.



EXHALE bring shoulder blades back to starting position.

Repeat 3–5 times.

2. Scapula Isolations (Protraction & Retraction) while seated



STARTING POSITION

Sit up on top of your sit-bones with your shoulders directly over your hips. Be sure you are not arching your back or slouching.



INHALE reach fingers forward. A widening between shoulder blades will occur - this is protraction. Try to keep space between the hands constant.



EXHALE bring shoulder blades back to starting position, widening across front of collarbone.

Repeat 3–5 times.



STARTING POSITION

Sit up on top of your sit-bones with your shoulders directly over your hips. Be sure you are not arching your back or slouching. Arms reaching out in front of torso, palms facing in.



INHALE bring shoulder blades closer together. A widening across front of collarbone will occur - this is retraction. Try to keep space between the hands constant.



EXHALE bring shoulder blades back to starting position.

Repeat 3–5 times.

2. Scapula Isolations / Elevation & Depression (A.K.A Shoulder Shrugs)



STARTING POSITION

Lying on back. Arms resting by sides.

INHALE slide shoulder blades up toward ears - this is elevation.



EXHALE slide shoulder blades away from ears, lightly pressing hands into mat - this is depression. (Don't round shoulders forward during depression.)

3. Arm Scissors

STARTING POSITION

Lying on back. Arms reaching to ceiling.

INHALE stay.

EXHALE reach one arm overhead, other arm down by hip, maintain ab connection, as well as contact between rib cage and mat. Keep shoulder blades stable.

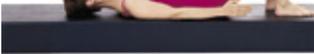
INHALE reach both arms to ceiling.

Repeat scissoring arms opposite way.

4. Arm Circles

STARTING POSITION

Lying on back. Arms resting by sides.



INHALE reach both arms toward ceiling and then overhead. Maintain ab connection, as well as contact between rib cage and mat. Keep shoulder blades stable.





EXHALE circle arms out to sides and around to hips



Complete 3 to 5 repetitions, then reverse direction, for an additional 3 to 5 reps.

Your cervical spine [neck] should hold its natural curve with your head balanced directly above your shoulders when sitting, lying and standing. In some cases, a small pillow should be used when lying on your back to put your head and neck in a comfortable position.

Whenever you lift your head and upper body from the mat, lengthen the back of your neck and nod your head forward without jamming the chin into the chest. There should be enough room to fit your fist between your chin and chest. Once your head is in proper position and your shoulder blades are stabilized (Principle 4), the upper torso can be lifted by contracting the abs and sliding your rib cage toward your pelvis.

When lying on your stomach and lifting the upper torso, pay particular attention to maintaining an even line from the upper back to the neck. Avoid lifting the head too high and crunching up the back of the neck.

HEAD & CERVICAL PLACEMENT PRINCIPLE EXERCISES

1. Head Nods

Practice doing Head Nods properly before lifting head and shoulders off the mat. Avoid jamming chin into chest, which results in too much compression of the neck.



STARTING POSITION

Lying on back, pelvis and spine neutral. Knees bent, feet hip-distance apart on mat. Arms long by sides, palms down.



INHALE lengthen back of neck, leaving head on mat.



EXHALE bring head back to neutral position.

2. Modified Curl Up

Practicing ab curls prepares you to safely do other more challenging abdominal exercises. Avoid jamming chin into chest, which results in too much compression of the neck.



STARTING POSITION

Lying on back, pelvis and spine neutral. Knees bent, feet hip-distance apart on mat. Arms long by sides, palms down.

To prepare, inhale...



EXHALE lengthen back of neck, stabilize shoulder blades, contract abs to slide rib cage toward pelvis and lift head and shoulders off mat. Keep lower back in a neutral position; avoid pressing lower

back into mat



INHALE return head and shoulders to mat, then return head and neck to starting position.

3. Modified Breast Stroke Prep

With this exercise, use upper back muscles to lift head and shoulders instead of pressing up with the arms. Keep abs contracted to protect lower spine.

STARTING POSITION

Lying on stomach, pelvis and spine neutral. Legs straight and together. Elbows bent, hands by shoulders.



To prepare inhale...



EXHALE initiate by gently sliding shoulder blades down and reach top of head away from tailbone to begin lifting upper back. Allow rib cage to open and maintain bottom ribs in contact with mat.



INHALE maintain position and breathe into sides of rib cage without losing abdominal contraction.



EXHALE lower upper torso to mat and return to starting position.