

FLEXORS OF THE KNEE

1. Hamstrings - Biceps femoris, semitendinosus, semimembranosus
2. Gastrocnemius
3. Plantaris

EXTENSORS OF THE KNEE

1. Rectus Femoris
2. Vastus lateralis, medialis, intermedius

ANKLE DORSI FLEXION

1. Tibialis Anterior

ANKLE PLANTAR FLEXION

1. Gastrocnemius
2. Soleus

CONCEPTS OF SMART MOVEMENT®

OPTIMAL STABILITY

The goal of CORE BARRE stability principles is to promote optimal dynamic stability when executing the exercises in the CORE BARRE syllabus in all of the positions and planes of movement.

There are many definitions of optimal stability. When referring to the core, the lumbo-pelvic / hip complex, we can describe it as gently ‘bracing’ the abdominals. Depending on the exercise, one might need to ‘brace’ more. The feeling is to effectively use the prime mover muscles (agonists) as well as the opposing muscles (antagonists) along with the local stabilizers to produce the right amount of tension. Adequate tension equals harmony, and it is what makes movement look and feel controlled and graceful. The effort of the joints and the muscles, combined with correct timing and reaction, is what gives the body a freedom of movement and allows one to exude an inner strength. While timing and force are unique to each individual, the goal is to make the body a stable platform in both static (still) and dynamic (moving) positions, one that is able to control alignment (posture) while taking on load (weight & gravity) and extending the levers (limbs).

In exercises where the spine and pelvis are consistently changing positions throughout, it is also necessary to emphasize neuromuscular coordination, bringing awareness to the mind / body connection. One concept does not work without the other. By understanding how joints and muscles work together and by using effective imagery, you can create a balance between strength and fluidity that will promote safe and effective movement.

BREATHING AND CORE STABILITY

CORE BARRE breathing focuses on non-forceful inhalation throughout. Paying attention to how the ribcage expands laterally and vertically with the breath aids in good oxygenation and influences posture. Exhaling through the mouth with a slight ‘hiss’ between the teeth and the tongue will encourage a deeper abdominal contraction when needed. Movement will influence the breath. When an exercise is producing more exertion, the exhale is more pronounced and works to promote stability at a deeper level. When less effort is needed, the goal is just to promote an awareness of a good breath pattern as many individuals hold their breath and create tension without being aware of it.

By nature, we were designed to breath as effortlessly as possible with just the right amount of force allowing for optimal oxygenation and blood circulation, which in turn promote energy throughout the workout as well as in daily living.

By cueing a ‘bracing of the abdominals’ and ‘use of the feet & seat’ one can create functional stability of their ‘powerhouse’.

PELVIC SETTING

A neutral position of the lumbar spine should be encouraged while standing. This should be done without ‘tucking’ the pelvis or ‘arching’ the back. You are looking for a long spine that is supported by the abdominals ‘lifting in and up’ and the seat engaged with the sitting bones reaching downward to keep the low back lengthened and supported. In supine positions you are looking for the back to lay flat against the mat, without tucking, for support and control.

If more support is needed, especially in an open kinetic chain exercise, then the pelvis can go into a slight ‘posterior tilt’ but without tucking the low back.

THORACIC AND CERVICAL SETTING

Maintain a neutral placement of the thoracic spine by keeping the rib cage alignment over the pelvis. Cue to not overextend (popping of the ribs) the thoracic spine when adding arm movements, especially when resistance is used. Cue to feel a separation of the ribs and pelvis to create length in the torso, good posture and oxygenation throughout the body. Pay attention that the ‘floating ribs’ feel connected to the abdominals.

Make sure the client also maintains a proper alignment of the cervical spine in relationship with the thoracic spine. The head (skull) should be resting over the shoulders and the natural curve of the cervical should be maintained throughout with a feeling of keeping the back of the neck long and the chin held parallel to the floor.

SCAPULAR SETTING AND MOVEMENT

Promote an equal width between the front and the back of the shoulder girdle throughout the exercises. Pay attention to how the scapula should naturally glide downward, by engaging the fibers of the lower trapezius, as well slightly inward, to keep the torso in ideal alignment. It is helpful to cue the feeling of a creating a ‘space under the arms’ to promote a good dancer-like carriage and awareness of the upper body, especially when using ‘port de bras’ (carriage of the arms). The scapula should lay flat on the spine without ‘winging’ or ‘tipping’. The collar bone should feel open and wide.

KNEE SETTING

Maintain placement of the knee over approximately the third and fourth toe when standing in first and second laterally rotated positions of the femur. Emphasize that the external rotation comes also from the pelvis, hips and knees - not just the feet.

When standing in parallel and in most of the seated exercises, you can have the feet separated keeping the heels in line with the sitting bones or the legs adducted and slightly turned-out in a ‘pilates v’ stance.

THE FEET AND ANKLE

In the exercises where the ankles are in **dorsi flexion**, feel maximum flexion coming from the ankle joint and the spreading of the toes. Have the feeling of sending full energy through the heel.

In the exercises where the ankles are in **plantar flexion**, feel a full plantar flexion (pointing) at the ankle joint with a lengthening of the toes creating a good aesthetic line from the leg to the ankle.

When standing in plantar flexion, the body weight should be ‘over the center’ of the body thus creating a balance without compromising stability throughout the ankle joint and the entire balance of the body.

PELVIC TILT

This is a position used in CORE BARRE during the standing barre work to engage more of the lateral glute muscles. The pelvis goes slightly posterior but **never into a pelvic tuck** which can create problems in the lumbo- pelvic / hip complex. The goal is to take the pelvis into a slight tilt by really engaging the lateral seat muscles (glutes) to lengthen the lumbar spine, engage the abdominals and support the low back like a ‘girdle or brace’. The ‘pelvic tilt’ is emphasized during the barre section in the laterally rotated (Plie) positions. Be informed that the ‘**slight posterior tilt**’ or ‘**imprint**’, mentioned in the pelvic setting principle, is used to give extra stability when needed as it encourages a support and lengthening of the lumbar spine. The **pelvic tilt** goes beyond that by using more of the glutes to tilt the pelvis in a manner that promotes a feeling of being ‘lifted in the seat’ or making a ‘**gluteal crease**’ in the seat but without a thrusting or tucking action. The primary goal is to engage more of the lateral glute muscles in external rotation of the femur, which tend to not be used enough to strengthen the hips and to stabilize and lengthen the lumbar spine.

CONCLUSION

Throughout my years of performing, observing and teaching dance and movement, my best definition of stability is: movement that appears to be effortless and graceful, while knowing where one is in space with a rhythm that is meaningful and with purpose.

Human movement that is pleasing to the eye and creates good energy is something worth teaching that is rewarding to both the student and the teacher. My goal with CORE BARRE is to create that awareness with mind and body and in doing so promoting a system of SMART MOVEMENT®. – Monica Hoekstra