

Rhythms Study Guide 3

BOSU ball, Stability Balls, Pilates, Muscle Endurance



What is BOSU®?

**Pronounced “Bo,” like the boy’s name, and “Sue,” like the girl’s name.*

Originally the name “BOSU” was an acronym for “Both Sides Up.” It meant that the BOSU® Balance Trainer could be used on either side, the dome or the platform. Today, the term “BOSU” has evolved beyond the product to now mean “Both Sides Utilized,” a mindful approach to exercise that is a step beyond traditional training. BOSU Training is about expanding movement capabilities, reshaping bodies and strengthening minds. It’s about inserting thought into movement.

The science of human movement supports what we know to be true; BOSU® training really is for everyone. **It’s quite possibly the most effective route to improving core stabilization and neutral spinal posture, both of which are the building blocks for moving better in athletics and in life.**

Core Stabilization and Neutral Spinal Posture

The ability to position the spine and activate the muscles necessary to do so is a key skill as it relates to all movement. Equally important, is training the core with the understanding that it links upper and lower body movement.

Pilates

Pilates is exercise. It is a physical training regimen based on the body in its most natural state- in motion. Pilates is an art form, similar to martial arts or dance, in that it must be worked to perfection on a daily basis. Pilates is a physical science. It is a technique so precise and so concentrated that its results remain with you forever.

The structure of the Pilates method requires mental focus, a process that that forced your muscles to respond more quickly to the training. Rather than performing repetitions, you carefully execute a limited number of compound movements with an eye toward perfecting every possible detail. By integrating body and mind, you will achieve an effective, efficient, and balance workout.

- Pilates dramatically transforms the way your body looks, feels and performs.
- It builds strength without excess bulk, creating a sleek, toned body
- It teaches body awareness, good posture and easy, graceful movement.
- Pilates improves flexibility, agility and economy of motion.
- It can even help alleviate back pain.

By practicing Pilates you should expect:

- To learn an ordered series of exercises that work the entire body from top to bottom
- You will obtain rapid and long lasting results.
- rigorous work with no impact to your joints.
- To strengthen and stretch your body during every exercise
- Pilates also activates the mind with it exercises, developing and increasing awareness of the body.

By emphasizing proper breathing, correct spinal and pelvic alignment, and complete concentration on smooth, flowing movement, you become acutely aware of how your body feels, where it is in space, and how to control its movement.

- Quality of movement is valued over quantity of repetitions
- Proper breathing is essential, and helps you execute movements with maximum power
- Learning to breathe properly can reduce stress.

The six principles of Pilates are:

- breath
- concentration
- control
- centering
- precision
- flow.

The powerhouse consists of the:

- collective muscles of your abdominals
- gluteals
- lower back muscles

Pilates exercises develop a strong "core," or center of the body.



Stability Balls (Exercise Ball)

- Crunches performed on a stability ball improved abdominal muscles by 24 to 38 percent over crunches done without a ball.
- "Abs workouts using a stability ball engage smaller core muscles than more traditional forms of exercise. Those smaller muscles help you keep your balance on the ball.
- You'll sculpt all the muscle groups in the abdominals — particularly the transverses for a flat stomach; they're sometimes missed in regular sit-ups — as well as the obliques for a whittled-down, smaller waist.
- The support gives you the sense that you're not working as hard as you actually are; you can probably do many more sit-ups on the ball than you'd be able to do on the floor."
- Yoga-based movements on a ball can also help improve digestion and help prevent back pain and injury.

Sample Exercises on the stability ball

1. Abs Crunch

This is one of the most effective ways to strengthen, flatten and tone the abs. Doing the exercise using a BalanceBall or stability ball eliminates the impact of a hard surface on the spine, which helps you perform the movement more precisely. It also helps increase lower back strength, support the spine, promote better posture and prevent lower back injury.



Begin in Positive Seated Posture; roll out until lower back is resting comfortably on ball. Place feet flat on floor, shoulder-width apart. Position hands behind head to support its weight, elbows pointing directly out to sides. Raise head even with torso and gaze straight up.

Inhale deeply; on exhale, contract lower abs. Hold the flex and inhale; on exhale, slowly curl torso forward, flexing middle and upper abs to raise chest up and toward pelvis. Allow head to follow chest. Do not force or pull head forward. Allow abs to do the work.

Raise chest until you feel abs completely contracted; hold for 3 to 5 comfortable, deep breaths. Release slowly, allowing head and chest to drop back down to torso level. Breathe. Repeat 10 to 12 times. Add more repetitions as you become stronger.

2. Donkey Kicks

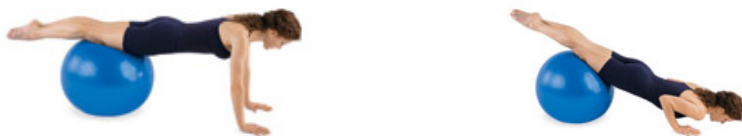
This exercise can appear more challenging than it really is. Designed to strengthen and tone the entire torso, this movement helps to tone the waistline, flatten the abs, and strengthen the lower back and spine to help prevent injury. This super-efficient exercise packs a lot of punch — it's really a total-body move that also shapes and defines the muscles in the arms and legs.



Begin by kneeling in front of ball. Lean forward, placing chest on ball and hands out in front of you. Push forward with feet and walk hands out until shins and tops of your feet rest on ball. Keep body in a flat position, head in line with torso. Focus gaze on floor. Flex abs to prevent back from sagging. Flex abs and slowly pull knees toward chest. Pull forward until hips and knees are aligned vertically. Press firmly through hands and arms for support and balance. Hold for 2 to 3 even breaths; release by extending legs back into starting position. Repeat 6 to 8 times. Add more repetitions as you gain strength in arms and abs.

3. Pushups

Think pushups are only for arms and pecs? Think again. Using a BalanceBall or stability ball boosts this move's abs sculpting benefits by activating the core (the abs and torso) to help you maintain balance during the movement.



Begin by lying over ball on chest, hands on floor in front of you. Walk hands forward until knees are resting on top of ball. Keep head level; focus on floor. Flex abs to stabilize torso. Position feet together, hands shoulder-width apart. Inhale; on exhale, slowly lower head and chest as far as is comfortable, keeping elbows tight alongside body. Hold for one breath and press back up to starting position. As a variation, when releasing chest to floor, extend elbows out to sides. This will help work chest more deeply.

Muscle Endurance Workouts

Muscular endurance is a health-related component of physical fitness. It is the ability of a skeletal muscle or group of muscles to continue contracting over a long period. When you have good muscular endurance you have:

- the ability to resist fatigue while holding a position,
- carrying something for a long period of time, or
- repeating a movement without getting tired.

Dynamic muscular endurance is higher numbers of repetitions and with lower resistance. Dynamic muscle endurance is the muscle's ability to contract and relax repeatedly.

- **An example of an exercise requiring dynamic endurance is the push-up.** At some point, the muscles will become fatigued, and you will no longer be able to perform them.
- Examples of everyday activities requiring dynamic endurance are carrying groceries to your car, raking your yard, and playing several sets of tennis. Each of these activities requires some muscular strength, but they also require the muscle to repeat the movement over a period of time.

One of the most popular methods is circuit resistance training. This training takes place by moving from one station to the next, usually set up in a circle. At each station a different exercise is performed with high repetitions but low to moderate resistance. Fifteen seconds of rest is provided while changing stations. Approximately ten exercise stations are used, and the exerciser repeats the circuit two to three times.

Many people are interested in endurance exercises because they can take inches off of body measurements.

Usually some strengthening and some changes in body contour occur. Also, endurance exercises:

- speed up metabolism, and
- your body burns calories at a higher rate for several hours after the endurance exercise.

