

STABILITY BALL PROGRESSIONS

By
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The Stability Ball has become a very popular tool within the clinical rehab setting. Their versatility allows their use with any population. Recently, Stability Balls have become popular outside the rehab settings. Their effectiveness in developing balance and core strength has earned them a spot in the world of athletic and functional conditioning. Various strength and conditioning experts have designed a multitude of exercises covering the entire body. The following exercise progressions are some of the exercises and progressions I have developed over the last four years. Omitted from this list are many rudimentary rehab exercises, as well as combination training where other pieces of equipment are used in conjunction with the Stability Ball. Your imagination is the only limitation encountered when using this great conditioning tool.

Ball selection and Notes

- 1) Selecting a ball is simple. A properly sized ball will allow you to sit on it with you knees and hip at 90 degrees. However, using different size balls will allow you more flexibility and variation with your Stability Ball training
- 2) General teaching cues and exercise mechanics that will increase the safety and fun of working with the Stability Ball.
- 3) Always exercise with a shirt – and sweaty body will slide off the ball which could cause an injury, especially if one falls while holding weight overhead.
- 4) I do not use any type of support or anchors for supporting limbs when training with the Stability Ball. The whole idea is to train in an unstable environment.
- 5) When using external resistance, you must handle lighter loads than you would when training on a standard bench. I do not recommend using high loads to failure with this type of training.
- 6) Spotters are recommended when using external resistance equipment. However, if you are using appropriate loads and form, minimal supervision is needed.
- 7) Now, let's talk about the body alignment in some of the fundamental exercise positions:

Body Alignment

Unless otherwise specified, a neutral alignment of the spine should be maintained when exercising.

1) Head (ball under hips) -

The cervical spine, or neck, should not be hyper-flexed. Try to maintain it in the position used when you are standing - in a neutral position. Likewise, do not hyper extend the neck when exercising.

2) Core (ball under hips, knees and feet progression)

When performing exercises where the body is suspended in the prone position between two distal support-points, it is imperative that the core be strong enough to maintain a posterior pelvic tilt. This protects the lumbar spine from hyperextension and requires exceptional abdominal and hip flexor strength. Notice the straight body alignment from head to toe.

3) Abdominal strength and tests

A simple method of assessing abdominal strength is to check if a person can maintain their lower back flat to the ground when lifting one knee. This test can then be advanced to two knees and eventually to an extended leg. If an individual cannot maintain a flat lower back during this test, they should not to perform exercises that risk lumbar hyperextension.

4) Prone Lever system (hip→ knees→ Feet→ 2 Leg→ 1Leg)

The lever system inherent to Stability Ball training can take into account not only the core stability of an individual; it can also adjust the resistance applied to the extremities.

Push-up: As the ball support goes further away from the arms, the demand for core stability is increased as well as the weight the arms must support. The longer the distance between the support points, in this instant the ball and arms, the harder the exercises will be.

5) Increased neural demand (reducing contact area of support)

Reducing the contact surface of any supporting limb can increase the neural demand of any exercise, especially where the legs contact the ball.

2 Leg support on the shins or insteps is the easiest, then proceed to 2 legs on ball of the foot, then 1leg on ball of foot, and finally 1 leg on toes.

6) Leg position for stabilization progression (2 Legs vs 1 leg, wide vs narrow)

The width of the support at the legs can also provide adjustments in the demand of an exercise. A wide leg position offers more support than a narrow position making the exercise easier. As the legs get closer to each other, there is less of a support base making the exercise harder. Ultimately 1 leg supported exercises are the hardest due to the additional support demands. Careful attention should be paid to stabilizing the hips in a stable and leveled position, preventing lumbar hyperextension and core or hip ration.

7) Protraction/Retraction

Finally, exercises requiring the arms to support the weight of the body demand optimal integrity of the shoulder complex. The key element to look for is proper stabilization of the scapulas. An individual should be able to prevent scapular collapse to a retracted position. Ideally, a neutral scapula is desired during isometric support, however, protraction can be incorporated at the end of the chest pressing movements.

8) Exercise during standing

When exercising in a standing position there are a few teaching cues, which will help make the learning and training process flow smoothly.

- a) During wall slides the middle of the stability ball should be at about the belt line. This ball position will provide adequate support when in the bottom position of a squat. Always master 2 leg exercises before progressing to single leg exercises
- b) During one-leg exercises where the free leg is being supported by a ball, smaller balls require less flexibility from the adductors and hip flexors. Choose the smallest ball available to start. Then progress to larger balls, which require the greatest amount of flexibility.
- c) Consistent with the lever system previously discussed for prone and supine exercises, the closer the ball is to the mainline of the body the less flexibility and stabilizing requirement. The closer the ball is to the foot the greater the requirement for stabilization and flexibility.
- d) During one-leg exercises, start with “stationary”- free leg support. This requires less balance then the dynamic movement you will progress to.

Once you have advanced to the dynamic, one-leg exercises, a “foot to mid-lower-leg role” adds a bit of stability in terms of ball position. However, the action and speed of the exercise dominate the stability requirements. If you do not have perfect execution during this dynamic exercise the ball will role the “free leg” off.

STABILITY BALL PROGRESSIONS

Volume I

Chest, Shoulders, Balance

Chest

1) Push-up progression

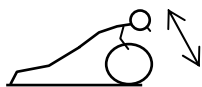
- a) 2 Legs on Ball – hip → instep → Toe stability progression



- b) Push-ups 1 Leg on Ball - hip → instep → Toe stability progression

2) Push-ups (Hands on Ball)

- a) 2 Hands on ball, 2 Feet on ground



Push-up and follow progression

- b) 1 Hand on ball, 2 Feet on ground

3) Hops



Explosive take small jumps – forwards then back.

Shoulders

One of the earlier weakness of Stability Ball Training was working the shoulder area. No Stability Ball weight exercises had been developed which simulated overhead pressing with less than body weight. Until now!

4) Knee tuck press



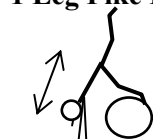
Push-up from this position

- a) Pike Press



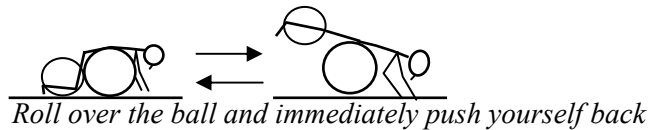
Push-up from this position

- b) 1 Leg Pike Press



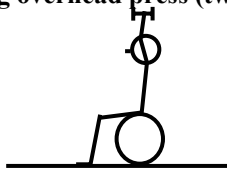
Push-up from this position

5) Roller coaster (two-balls)

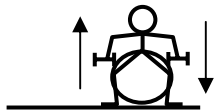


Shoulders - EXTERNAL RESISTANCE

6) DB Sitting overhead press (two arm, alternating, 1 arm)



7) DB Sitting Upright rows

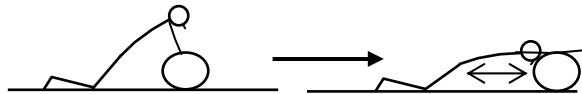


Back

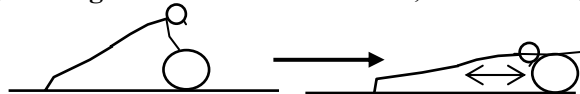
Stability Ball training can effectively target the various muscles of the back. Both, the small stabilizers, as well as the large prime movers.

8) Shoulder Roll outs,

a) Straight arm Shoulder rollouts, from knees (hands apart)



b) Straight arm Shoulder rollouts, from knees (hands together)



Back - EXTERNAL RESISTANCE

The Stability ball can be use to provide an unstable environment for more traditional back exercises using external resistance.

9) Seated rowing (follow same progression as pressing)

10) 1 Arm DB Row (Staggered, parallel → feet further back)



Balance Strength and Stability

Balancing and stability work is inherent to all work involving the Stability ball. However, one can easily emphasize these components by making them the primary or limiting factor in an exercise. The following are just some examples.

11) Four Point Balance progression

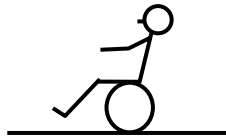


12) Two point balance (Knees on Ball)



13) One point balance on knee

14) Sitting balance



15) Impact Training

➤ Shock lockouts



16) Acyclic Impact Training (shoulder, push-up lockouts, standing core –all versions)



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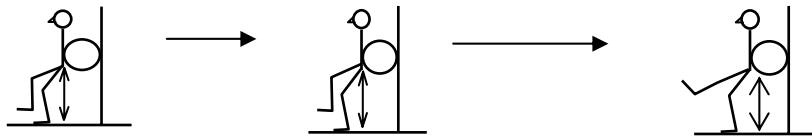
Volume II

Legs, Hips, Core

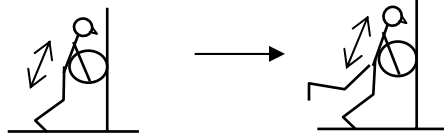
Legs and hips

The wall-slide series is an excellent way to rehabilitate, prepare for more intense leg-work, or strengthen the lower body. Wall Slides can be used by any population to functionally and progressively strengthen the legs.

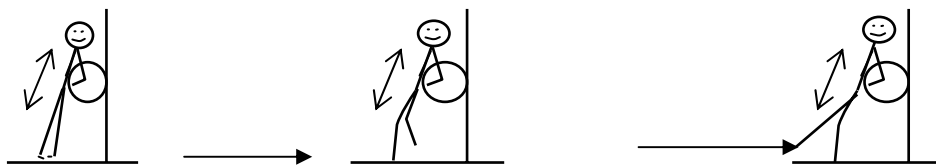
- 1) **Back wall slide**
 a) Two legs b) One leg c) One leg -Free leg extended



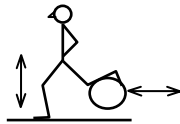
- 2) **Front Wall Slide**
 a) Two legs



- 3) **Side Wall-Slide**
 a) Two legs b) One leg, outside leg c) One leg, inside leg



- 4) **One leg squat (ball supported leg back) → w/mobility (instep to toes)**



- 5) **Lateral one leg squat (ball supported leg to side → mobility – circles and Fig 8s)**

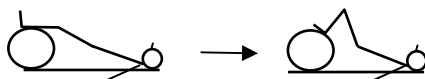


- 6) **Prone knee extension/elbow supported (progress from two legs → to one leg → toe)**



- 7) **Supine leg curls (progress from two legs → to one leg → heel → w/mobility)**

Curl Legs



Mobility notes: free leg straight stationary → strt leg/hip flex → free leg run mech.

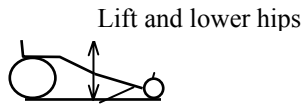
Legs -EXTERNAL RESISTANCE

(Refer to body weight exercises and add resistance)

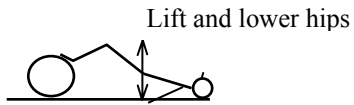
- 8) **DB Resisted Wall slides (all versions)**
 9) **DB Resisted SB One leg squat (all versions)**

Hips (Lumbar)

- 1) Bridges (Progress to one leg → heel → mobility)



- 2) Hip lifts supported on ball of foot (Progress to one leg → mobility)



- 3) Kneeling prone hypes

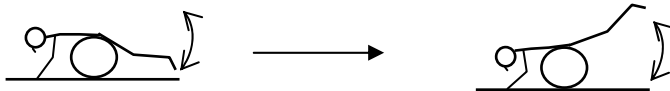


- 4) 3 point prone hypes (feet on floor)

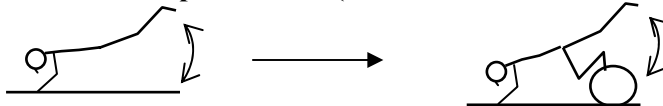


- 5) Contralateral supermans (ball supporting trunk – 6 point position)

- 6) Reverse Hypers

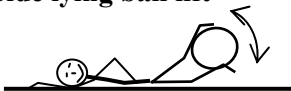


- 7) Unilateral – Hip Extension (Stabilization; Knee → Shin → Toe)



Hips (Abdominals/Obliques)

- 1) Side lying ball lift



- 2) Leg scissors rotations with ball



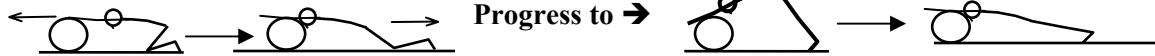
- 3) Prone knee tucks (2 legs → 1leg)



- 4) Pike Tucks (2leg → 1leg → Toe)



5) Hip roll-outs (Knees → Feet)



6) Hip twisters (scissoring log rolls)

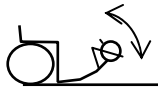


7) Prone Skiers (Progress two leg → one leg → mobility-Js)

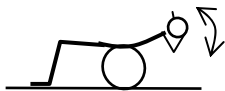


Abdominals/Obliques

1) Crunches – feet elevated (progress to ABCs)



2) Abdominal crunch



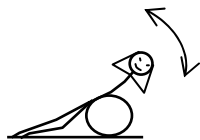
3) Reverse crunches (Progress to ABCs →)



4) Full crunch ABCs



5) Lateral crunch (Hips on ball)



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