

Fitball Exercises

Introduction

Originally, large inflatable balls were used in the 1960's by Swiss physiotherapists to help children with Cerebral Palsy improve their balance, reflexes, and strength. Now athletes, children, and fitness enthusiasts from around the world are breaking away from traditional exercise regimens to explore stretching and strengthening exercises on the Swiss Ball. NB: Swiss Ball was the original term but others used include Fitball, Gymball and Balance ball.

Exercising on the Swiss Ball can be a total body workout. Apart from the obvious benefits in muscle strengthening and stretching, the Swiss Ball can help develop body awareness, improve posture and reduce stress on the joints.

From a sports performance view, the Swiss Ball can improve balance in an athlete which in-turn improves agility and will also improve joint stability through constant feedback between muscle groups. Most importantly, if done correctly, the Swiss Ball will facilitate 'core stability' allowing the extremities to be used more efficiently and in a more "normal" manner, decreasing the likelihood of injury.

Benefits of Swiss Ball Training

- Exercising on the round, dynamic surface of the Swiss Ball requires constant recruitment of the deep core muscles.
- Using a Swiss Ball assists in the development of body awareness & proprioception.
- Swiss Ball training improves posture and promotes correct spinal alignment. By improving posture the individual will have less stress on joint and stabiliser musculature, decreasing the likelihood of injury.
- Exercising on a Swiss Ball can target twisting, side bending, and rotation patterns that are important in everyday life (and sports) and which are difficult to perform in the gym setting.
- Swiss Ball training improves the function of stabiliser and antagonist muscles. As this improved function improves joint stability, it allows a higher portion of prime movers to be recruited thus the ability to apply more power and strength to any given situation (especially important on the playing field).
- Swiss Ball training improves balance which in-turn improves agility and results in better sports performance.
- Swiss Ball training provides a high level of nervous system activation (constant contraction).

Contraction Types

Swiss ball training facilitates concentric, eccentric and isometric muscle contractions. When performing the exercises it is important not to hold your breath. As a general rule, try to breath out as you make the effort. Two sets of 10 - 12 repetitions is a good starting point with 2 - 3 sessions per week a good goal.

Choosing the Correct Ball

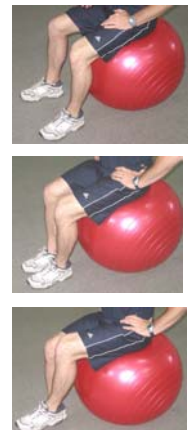
- **Ball Size**
Ideally, when performing seated postural work on the ball, the exercisers thighs should be parallel to the ground. The hips and knees should form 90 degree angles. This can be used as a general rule for determining ball size but is not as important with floor work using the ball.
- **Ball Type**
For any exercise in the prone or supine positions the ball should be of antiburst specification. This means that if the ball becomes punctured while in use it will resist bursting. Many early balls available do not have this quality.

In order to improve sports performance, the ball should be firm and feel solid when inflated to it's recommended height. A firm ball will have improved dynamic qualities than that of a softer ball. Generally the firmer the ball the more difficult the exercise.

Increasing the Difficulty of the Exercise

- The further the ball is from the body the more difficult the exercise becomes
- Closing eyes increases difficulty level
- Adding manual resistance increases the difficulty (ie. medicine ball, free weights, resistance bands, partners)
- Increasing inflation of the ball or using a smaller sized ball increases difficulty
- Advance from two legs to single leg progressions.
- Advance from wide base of support to narrow base of support
- Vary the speed of the movement.

Increasing
Difficulty










































All movements are performed slowly and with control unless the movement is sports specific and dynamic and requires a quick release.

Emphasis must be placed on keeping the hips "up" when performing exercises that place the torso parallel with the floor.

Setting the Abdominals

Setting the abdominals is a simple, yet important step in all Swissball exercises. Slightly drawing in your navel toward your spine and giving your pelvis an anterior tilt (which emphasises the natural curve in your lower back) should accomplish the setting of the abdominals. This drawing in serves a significant function. Most important, it initiates a support mechanism for the spine and torso as a result of the transversus abdominis and internal oblique muscles being activated. This motion of drawing in has been demonstrated to assist in the reduction of compression on the spine by as much as 40%, as well as promoting the natural function of these muscles. When this contraction is activated, it provides your body with a much more stable core area for executing all exercises. (Richardson et al. 1999; Wirhed 1999)

		<p>Basic seated position With the correct sized ball, thighs should be parallel to the floor with feet flat on the floor about shoulder width apart. From here attempt some pelvic circles and figure 8's with your pelvis.</p>
		<p>Fitball Abdominal Curl Fitball should be located in the lumbar curve of the spine with feet flat on the floor. Finger tips placed on temples with elbows pointing out. Keep the neck straight by looking up. Increase the difficulty by moving further up the ball or vice versa to decrease difficulty.</p>
		<p>Abdominal Curl (feet on Fitball) Lying on back with feet on top of the ball. Finger tips placed on temples with elbows pointing out. Keep the neck straight by looking up. Curl up 20° - 30° using a slow controlled movement. Try not to 'cheat' by throwing the elbows forward and utilising momentum.</p>
		<p>Fitball Oblique Curl As above but as you curl upward, twist the upper torso and bring one shoulder towards the opposite knee. Try to think about bringing the shoulder across as opposed to the elbow. Use a slow, controlled movement and repeat on both sides.</p>
		<p>Oblique Twist (using Fitball for resistance) Place fitball between the feet and begin with legs 90° to the floor. Slowly lower the ball to one side without actually touching the floor and bring back to 90°. Repeat on the other side. To decrease difficulty simply bend the legs slightly. For hard core people you can use a medicine ball!</p>
		<p>Praying Mantis Begin on knees with ball arms length away. Maintaining a straight body line, slowly 'fall' onto the ball and allow the ball to roll away. Keeping the straight body line, push onto the ball and roll back to the starting position. To increase difficulty, roll the ball further away from the body.</p>
		<p>Oblique Curl (advanced) Begin with the body 90° to the ball with hips into the ball and feet placed shoulder width apart where the wall meets the floor. Place arms in the usual ab position (see above). Slowly curl up sideways 20° - 30° and lower back to the starting position. Repeat on other side.</p>
		<p>Prone Walkout Begin with ball under the stomach. Gradually 'walk' out to the required distance. To increase difficulty simply walk further away from the ball. Try to keep shoulders directly above the hands to reduce pressure on the wrists. Keep the back straight by bracing the abs.</p>
		<p>Superman Begin with the ball under the stomach with both hands and feet touching the floor. Slowly lift an opposite arm and leg until they are level with the upper torso, then lower back to the starting position. Try to keep the neck straight by looking down. Repeat on the other side.</p>
		<p>Prone Tuck From the prone walkout position slowly roll the ball towards you as far as you can, then roll back out to the starting position. Try to keep the shoulders above the hands throughout the movement and use a slow controlled movement throughout.</p>

		<p>Lat raises Begin in the basic seated position with appropriate dumbbells by the side of the body, palms facing in. Keeping a slight bend in the elbow and straight wrists, slowly raise the dumbbells to shoulder height and down again. Alter feet position to increase difficulty.</p>
		<p>Bicep curl Begin in the basic seated position with appropriate dumbbells by the side of the body, palms facing forward. Curl the dumbbells up as far as you can keeping the elbows tucked into the body. Lower slowly back to the starting position. Alter feet position to increase difficulty</p>
		<p>Chest Press Begin lying on the ball ensuring head is resting on the ball with a 90° angle at the knees, dumbbells held with a 90° angle at the elbows. Slowly press the dumbbells vertically until the arms are almost straight. Lower back to the starting position.</p>
		<p>Lunges Begin with ball in lumbar curve leaning against a wall with one leg forward and one back with both toes pointing forward. Slowly lower the body until back knee almost touches the floor. Gradually rise back to the starting position. Ensure front knee does not go past front toes.</p>
		<p>Squats Begin with ball in lumbar curve leaning against a wall with feet shoulder width apart. Slowly lower the body until the thighs are parallel to the floor. Ensure front knee does not go past front toes. Move feet further forward if necessary. Weights can be held to increase difficulty</p>
		<p>Leg Curl Begin lying on the floor, arms out with heels placed on the ball. Lift hips up so the body is in a straight line. Keeping heels digging into ball, slowly curl the ball into your body keeping hips elevated. Roll the ball back to the starting position. Use one leg only to increase the difficulty.</p>
		<p>Leg Extension From the basic seated position slowly extend one leg.</p> <p>T Bridge roll From the lying position with arms out, slowly roll from side to side.</p>
		<p>Push up From the prone walkout position slowly lower the upper body towards the floor and then push back up to the starting position. Difficulty increases the further you walk away from the ball.</p>
		<p>Reverse Flyes Begin lying face down on the ball with the ball in the stomach area with the appropriate dumbbells in your hands. Keeping the elbows slightly bent and wrists straight, slowly raise the dumbbells until they are level with the upperbody. Lower back to the starting position.</p>
		<p>Kneeling and Standing These advanced exercises are not for the faint hearted! It is important to build up to these gradually and do them with supervision for the first few times.</p>