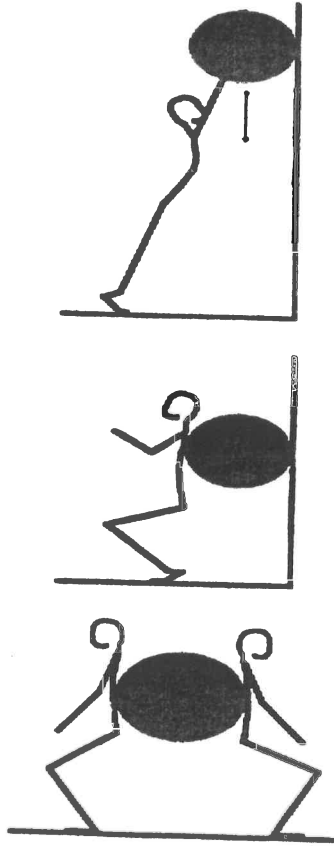


Karens, big ball class



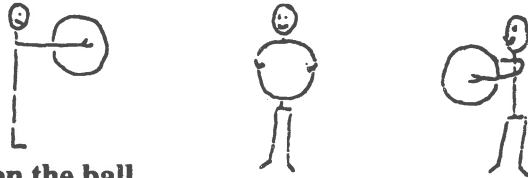
Flexibility - Spine

(can be used as a warm up prior to using the ball as a workout)

In standing

1. Rotation (Twisting at the waist)

Stand with the ball held in front at arms length. **Keep the hips and pelvis facing forwards.** Rotate from the waist, taking the ball to one side, return to the center, then repeat to the opposite side. Perform slowly. Repeat between 5 & 10 reps each side.



Sitting on the ball

When sitting on the ball, position your feet in front of you. Ensure that your knees are inline with your feet. Start by finding a "neutral" position of the spine.

1. Hip hitching

Gently roll the ball to the right and left (by altering body weight from one buttock to the other), thus hitching respective hips and narrowing the gap between shoulder and hip. Repeat 5-10 reps each side.



2. Pelvic tilting (slumping & hollowing)

Gently roll the ball forwards, tilting the pelvis backwards and rounding the lower spine. Return the ball by rolling it backwards, sitting up and tilting the pelvis forwards. Repeat 5-10 reps each direction.



3. Ball circles

Combine 1 & 2 by circling the ball beneath you, rotating the pelvis respectively. Repeat 5-10 reps each direction.

4. Rotation (twisting at the waist)

Take one leg out to the side. The other knee remains bent with the foot resting on the floor. Twist from the waist towards the bent knee, taking the opposite elbow to knee. Repeat to the other side. Repeat 5-10 reps each side.



Lying over the ball

1. Flexion (bending forwards)

Either rest down on knees or toes. Drape yourself over the ball with your hands resting on the floor in front of you. Allow your spine to curve around the contour of the ball.

Hold 10-20 seconds.



2. Extension (bending backwards)

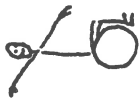
From a seated position, walk the ball forwards as you lean backwards. Allow your spine to rest against the ball and either support your neck with your hands clasped behind, or allow the head to rest on the ball and reach backwards towards the floor with your hands. Hold 10-20 seconds (remember to breathe). To return to sitting - bend the knees so that the ball rolls forward which brings the body forwards, uncurl gently lifting the head as the spine is almost vertical. Roll the ball backwards keeping the spine vertical to sit back on the ball.



Lying on floor with legs over the ball

Rotation (twisting at the waist)

Take your arms out to the side. Gripping the balls with your thighs, slowly roll the ball to the right allowing the waist to twist. Return the ball to the center and repeat to the other side. Repeat 5-10 reps.



Lying over the ball – side wards

Side bending

Lie with your waist over the ball enabling you to rest the lower hand on the floor. Cross the top leg over the bottom to stabilize the lower part of the body. Keep the body in a straight line and avoid twisting forwards or backwards.

- (i) Stretch by taking the top arm over the head towards, to test your balance further,
- (ii) take the hand off the floor and grasp hold of the raised arms' wrist.



Leg's

(Choose 2-3 of these exercises)

1. The Wall Squat.

Stand with the ball at hip level behind your back, leaning against the wall. Feet should be shoulder width apart and positioned about 1 - 1¹/₂ foot in front of the ball. **Flatten the stomach and tighten your bottom muscles.**

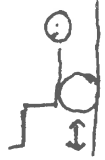
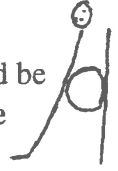
Roll down the wall in a controlled manner, **keeping the pelvis level and knees in line with the toes**, to a point no further than 90 degrees at the knee, and return to starting position.

This can be progressed to a) squatting down on two feet and raising on one leg.

b) squatting using single leg only.

Perform 8- 16 reps

a)



2. The Mogul squat.

Squat as above, but on rising raise onto toes, turn the toes & knees to the right, squat down with the heels flat on the floor, raise again and turn the toes & knees to the left. Remember to **keep the knees in line with the toes at all times** to prevent unwanted movements in the knee joints.

Perform 8- 16 reps



3. Lunges

Stand with the ball at hip level behind your back against the wall. Extend your right leg behind you as far back to the wall as you can without letting your back arch, & lift the right heel off the floor. Ensure your left foot is facing forwards. Bend both knees, **keeping pelvis level**, the right knee should bend vertically towards the floor, whilst the left knee bends towards the left foot. Perform the same with the left leg extended behind you.

To progress this exercise, hold dumb bells in your hands.

Repeat 8- 16 reps.



4. Prone squats

Squat on toes in front of ball, lean on ball through forearms.

To perform:- Straighten both knees and roll the ball forwards maintaining good spinal alignment with abdominal control. Try to avoid collapsing onto the ball. In the full extended position, there should be a straight line from your shoulders to your heels & your upper arms should be at 90° to your trunk. To return, roll the ball backwards & keep the knees facing forwards as you squat down towards the starting position.

Perform 8-16 reps.



Buttocks

(Choose 2-4 of these exercises)

1. Buttock dips

From the table top position, head and shoulders resting on the ball. Keep feet facing forwards approx hip width apart. Bend from the hips allowing buttocks to dip towards the floor, but prevent the ball from rolling forwards. Return to the table top position by squeezing your buttocks & raising your hips towards the ceiling. Avoid rolling the ball backwards by raising the hips vertically in a straight line. To progress this exercise perform on one leg. Crossing one ankle over the balancing knee.

Perform 8- 16 reps.



2. Bridging

a) Lying with knees bent over the ball. Engage your abdominals and buttocks. Slowly raise your buttocks off the floor and gently lower again. Try single legs. Perform 8-16 reps.



b) Lying with legs straight, heels/calves resting on the ball. Engage abdominals and buttocks. Slowly raise your buttocks off the floor keeping knees straight and gently lower again. Try single legs. Perform 8- 16 reps.



c) Lying with knees bent, feet resting on upper side of the ball, lift buttocks off the floor, hold this raised position then roll the ball forwards and backwards by straightening the knees then bending them again. Once you have mastered this try single legs, **but make sure the pelvis remains level.** Perform 8- 16 reps.



3. Hip extension (leg raises)

Lying on your front (prone) over the ball. Keep chest low against the ball and engage abdominals. Avoid arching of the spine throughout these exercises.

a) Perform with knee straight, single legs and progress to bilateral leg lift.
b) Perform with knee bent, sole of foot facing ceiling. Progress to double leg lift.
Perform 8-16 reps.



Hamstrings

(choose 1 or both of these exercises. Note that you will have already worked the hamstrings in many of the previous exercises).

1. Hamstring curl

Lying on stomach, place pillow under stomach if this position causes low back pain. Starting with the ball between the ankles (you may need to bend the knees slightly in order to grip the ball). Engage the abdominal muscles and draw the ball towards the buttocks by flexing the knees. Perform in a slow and controlled manner, return the ball to the floor.

Perform 8-16 reps.



2. Hamstring pull

Starting in the table top position (shoulders only resting on the ball). Keeping the hips level by engaging the abdominals and buttock muscles. Firstly gently roll the ball backwards by pushing with your feet so that your knees straighten slightly, then secondly pull the ball forwards with your feet so that your knees bend. Make sure you keep your hips level i.e. prevent the hips from sagging towards the floor.

Perform 8- 16 reps.



Calf raises

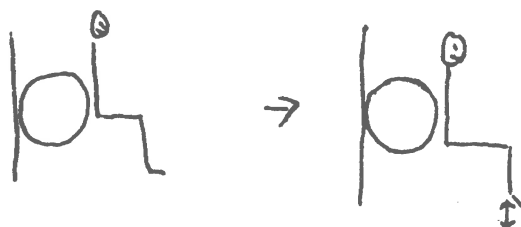
(choose 1 or 2 of these exercises. Note that the calves are very active during the mogul squats)

a) In the table top position (head and shoulders resting on the ball) pelvis lifted so that the thighs are in line with the upper body. Knees are bent 90° with the feet in line with the knees. Maintain this position whilst raising heels off the floor. Perform in a controlled manner. Perform 8-16 reps.



b) In standing - see wall squat for starting position. Squat so that the knees are not bent beyond 90°. Maintain this position whilst raising heels off the floor. Progress to raising one heel.

Perform 8- 16 reps.

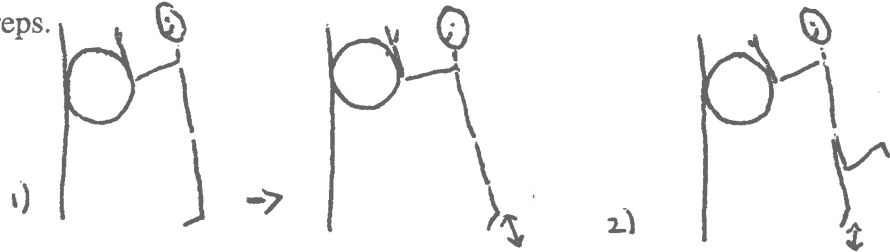


c) **In standing**, with ball against the wall, face & and rest your forearms onto it. Keep shoulder blades pressed downwards, engage the abdominals to prevent the spine from extending and lean onto the ball keeping the knees straight. Perform the exercise by raising onto the toes, and slowly lower to the floor. To progress this exercise:-

1) Take the feet backwards still **maintaining good spinal alignment** with the heels still able to touch the floor.

2) Try performing on one leg.

Perform 8-16 reps.



Hip adductors (inner thigh muscles)

(choose one or both exercises)

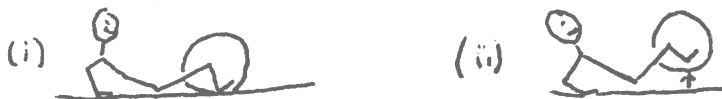
1. **Sitting ball squeezes (sitting on floor with ball between knees)**

With hands positioned behind the body (fingers facing forwards) & feet on the floor.

(i) Squeeze the ball between the knees using the inner thigh muscles. Hold the contraction up to 5 seconds and relax.

To progress, (ii) lift the ball off the floor using abdominals and hips whilst performing the exercise.

Perform 8- 16 reps.



2. **Side lying ball raises**

Lying on side, legs straight, with ball between ankles. Raise the ball towards the ceiling, and lower. This will also work the upper leg abductors (outer hip) and upper-most waist oblique muscles (abdominals).



Dynamic Abdominals

Rectus Abdominus

(Choose 2 out of the 4 exercises)

1. Sit up's with legs over the ball.

Engage abdominals, lift head and shoulders off the floor. Depending upon individual ability either position hands on thighs, cross arms over chest or position hands by temple whilst executing the exercise. Breathe out whilst raising head and shoulders and breathe in on reversal. Avoid flexing the neck excessively by following the ceiling with your eyes whilst you raise.

Perform 8-16 reps.



2. Reverse curls

Lying on your back with legs over the ball. Grip the ball with the thighs, engage abdominals, and lift the ball off the floor drawing the ball towards your chest. Do not use momentum or jerk to perform the exercise. To progress the exercise, keep the ball slightly raised off the floor before curling again.

Perform 8- 16 reps.



3. Sit up's whilst sitting on the ball.

i) Sitting reclined on the ball so that the lower back is supported, but the buttocks also remain in contact (ii. place toes against a wall for greater stability). For position of hands see no. 1. above. Using your abdominals, raise yourself forwards away from the ball, as far as you feel comfortable and return to the starting position. Exhale on raising and inhale on lowering. Try to avoid protruding the neck by keeping the head in line with the shoulders.

Perform 8-16 reps.



4. Sitting to table top position.

Start by sitting on the ball & engage the abdominals. Whilst walking the feet away from you the ball will also roll forwards. Lean backwards onto the ball as it rolls, & continue rolling until you reach the "table top position". Once in the table top position your body and thighs should be horizontal and in line with each other, and your head and shoulders should be resting on the ball. Reverse the position by tightening the abdominals, and sitting up whilst walking the feet backwards.

Perform 8- 16 reps



Dynamic Abdominals Obliques

(choose 2 to 3 of the following 7 exercises)

1. Obliques with legs over the ball.

Similar to "sit up's with legs over the ball", but whilst sitting up gently twist the upper body to one side and reverse to lower. For hand and neck positions refer to sit up's.



2. Trunk twist with legs over the ball.

Start with the arms out to the side resting on the floor. Roll the ball to either side in a controlled manner, using the muscles around the waist to execute the movement. To progress the exercise

- i) Raise the ball as with reverse curls see no.2. previous page and take the ball from side to side in a raised position.
- ii) To progress, raise the hands at chest level & clasp them together. Then perform the above.

Perform 8- 16 reps.



3. Oblique curl sitting on the ball.

Starting position including hand and neck position see no.3 previous page. As you sit up turn the upper body to one side. Reverse to starting position and repeat to the other side. Perform 8- 16 reps.



4. Trunk rotation (twisting) in the table top position.

Roll down into the table top position. Raise hands above chest and clasp hands together. Keeping elbows soft, but shoulders strong, twist from the waist in order to roll onto one shoulder allowing the ball to roll with you. Keep the neck in line with the rest of the shoulders. To progress this exercise, hold a manageable dumb bell in your hands whilst twisting.

Perform 8- 16 reps.



5. The windmill

Lying over the ball on your stomach. Head and shoulders free of the ball in front, and legs outstretched behind. To help with balance separate the feet as far as you feel comfortable. Engage buttocks and abdominals in order to keep the hip straight. Position arms out to the side. To perform the exercise, (i) turn your upper body so that one hand touches the floor, and the other raises towards the ceiling. Pull yourself back to centre using your oblique abdominals (by tightening the waist muscles) and repeat to the opposite side.

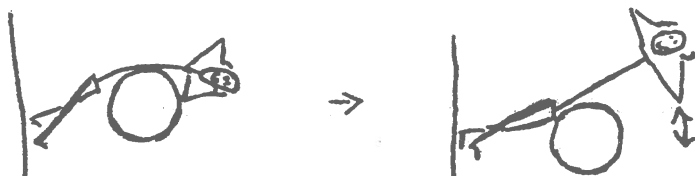
To progress the exercise (ii) position your feet against the wall, but keep the feet below hip level.

Perform 8- 16 reps.



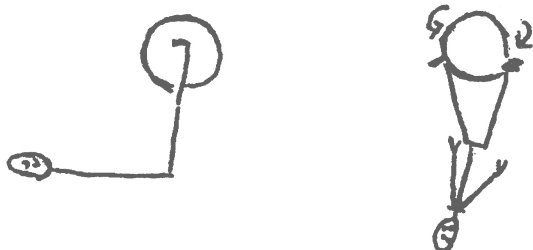
6. Lateral flexion (side bending) over the ball.

Lying on your side with the ball beneath your waist and for greater stability position your feet against a wall. Cross the top leg over the bottom leg. Keep the body in a straight line and engage the lower abdominals to prevent any unwanted movement at the spine. Either: position your arms across your chest, or hands to temples. Allow your upper body to curl/side bend over the ball so that your shoulders move towards the floor. Tighten your muscles around the uppermost side of your waist to raise to the starting position, and further if you feel able. Remember to breathe in as you lower and exhale as you raise. To progress this exercise further, try performing away from the wall. To progress further, hold a weighted ball or dumbbell close to the body. Perform 8- 16 reps.



7. Hip twister.

Lying on back, engage abdominals and raise the ball in the air with the ankles around either side of the ball. With the knees straight and hips as 90°, gently twist the ball the same as you would to a steering wheel, by tightening the muscles of the waist above the hips. Perform 8- 16 reps.



Static Abdominals

(choose 2-3 of the following 7 exercises)

1. Hip abduction/adduction (outward & inward movement)

Lie with legs over the ball. Engage lower abdominals. Gently lift one leg off the ball, take the knee and hip out to the side, and follow the contour of the ball. Keep the pelvis level and only allow the leg to rotate as far as the pelvis remains static. Return the leg to the ball and repeat with the other leg. To work the abdominals a little harder, perform a set of reps with one leg without returning the leg to rest on the ball. Perform 8 – 16 reps.



2. The plank - forearms on the ball.

(i) Kneel with your forearms resting on the ball in front of you. Alternatively/ progressively (ii) squat onto toes. Roll the ball and take your hips forwards so that you are (i) resting on the thigh bones just above the knee caps, and the upper body is positioned in line with the lower body, or (ii) you are resting on your toes with the knees straight.

There should be a straight line from your shoulders to your knees/ toes, but try to keep the upper arms at 90° to your trunk. Maintain this position by using your abdominals for 15 to 60 seconds. Progress by rolling the ball forwards and backwards whilst maintaining the position described above, i.e., the spine remains static whilst the upper body moves the ball. Again perform for 15 to 60 seconds.



3. Press up's over the ball (working chest and arms also)

Roll over the ball forwards so that your hands are supporting you beneath your shoulders, and the ball is supporting you at either:- pelvis, thigh or shin level (the further away the ball is from your hands the harder the exercise). Stabilize by engaging the abdominal and buttock muscles. Bend from the elbows and lower your chest towards the floor, return by straightening the elbows. **Avoid any arching or flexing** of the spine whilst you lower & raise.

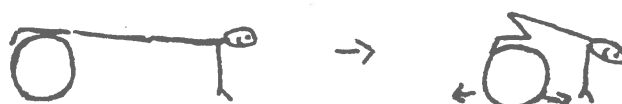
Perform 8- 16 reps.



4. Squat thrusts over the ball.

Lying over the ball - starting position as above. Tighten abdominals, and draw the knees towards your chest whilst keeping the buttocks low. Roll the ball backwards to return the ball to the starting position **without allowing the back to extend beyond neutral**. To progress the exercise try to perform on one leg.

Perform 8-16 reps.



5. Leg press

Lying on back with knees and hips flexed. With ball between ankles, engage the abdominals, and raise by extending the knees so that the soles of the feet face the ceiling. There should be no rocking of the spine. Lower the ball by bending the knees, but keep the thighs vertical.

Perform 8-16 reps.



6. The pendulum

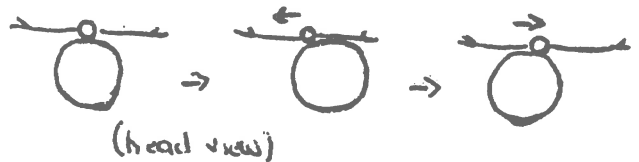
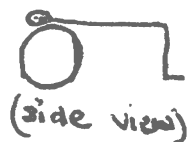
Lying on back with ball between ankles as above. Raise and draw the ball towards your upper body with the legs. At the same time prepare to grasp the ball with hands by raising them above your chest. Take hold of the ball with both hands and as you lower your legs (harder if the knees are kept straight) towards the floor (harder if you keep them slightly raised off the floor), take the ball behind your head towards the floor (harder if you keep the ball slightly raised). Raise the legs again and return the ball towards your feet. Lower the ball towards the floor (harder if you raise the arms above the head at the same time).

Perform 4-16 reps.



7. Ball Rolls (works shoulder stabilizers also)

Lying over the ball - see press up's for starting position. Using the upper body/shoulder muscles, gently roll the ball in a small circle. Stop and roll the ball in the opposite direction. There should be no movement at the trunk/waist.



Back

(choose 1 or both exercises)

1. Dorsal raises

Lying over the ball and resting on either knees or toes. Head and shoulders should be free from the ball. Either cross the arms in front of chest, place hands by temples or outstretched in a crucifix position. For a more advanced position raise hands outstretched above the head. Engage the abdominals, and gently raise your chest off the ball. Breathe out as you raise and inhale as you lower yourself. Only raise to a comfortable position, and keep your head in line with the rest of the spine. Perform 8- 16 reps



To progress this exercise:-

i) you can lift a weighted ball or dumb bell as you raise



ii) you can place your feet against a wall, but don't raise them above hip level.

Perform 8- 16 reps.



2. Dorsal raise with side bending

Start in the same position as above. Gently raise yourself off the ball until the spine adopts a **neutral** position. With the abdominals engaged, gently side bend at the waist by reaching for one ankle. Repeat to the other side.

Perform 8- 16 reps.



