

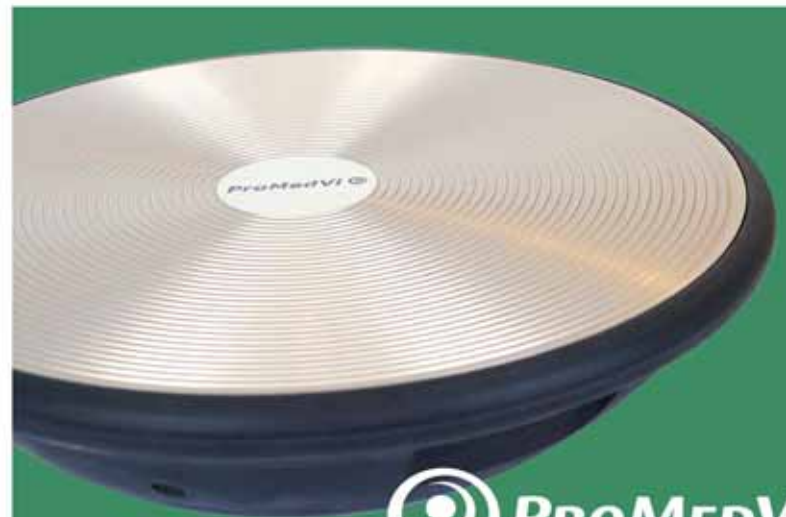


VIBROSPHERE[®]

by ProMedVi

Balance with vibration

Basketball



ProMedVi® Basketball

Basketball is one of the world's most popular sports. It was introduced by the YMCA movement in the US in the 1890's, and commenced as an olympic game at the Berlin Olympics in 1936.

Basketball is a very complex sport, where the athlete need to be prepared for different kinds of movement at different speeds, with stops, turns, jumps and bodycontact. The players only kind of "protection" is if he/she has done the "homework" with good physical preparation. It is important for the players to have good endurance, coordination, powers of reaction, balance and strength. The Vibrosphere® is a perfect help for players' getting ready for the game, and to become a top performing athlete in the future. It is also ideal to use the Vibrosphere® in the development of stamina and balance in basketball basics.

By examining the typical problems and injury patterns of basketball players (ankle-and knee distortions, groin injuries, injuries in the hand and shoulders), ProMedVi has, along with sports medicine specialists, produced training exercises for rehabilitation and preventive training. The use of the Vibrosphere® with existing injury recovery programmes will reduce the time the player is out injured. However, as in most sports and activities, it is better to prevent than cure. Consequently, most of the exercises can be used in preventive training to avoid injuries.

The concept ProMedVi® Basketball has been conceived together with Johan Enbom, EOS Lund Basket. Enbom is a former National Team Coach for eleven years, both for The Women's National Team and Men's Wheelchair basketball team. He is one of the highest educated and internationally experienced coaches in Sweden. He is a successful coach with several championships below his belt, and is also educated as a physical coach.

Training Instructions

Place the Vibrosphere® on a function pad or other suitable base with good friction. To increase the degree of difficulty place the Vibrosphere® on a blue training pad. If you wish to decrease the degree of difficulty place the Vibrosphere® on one of ProMedVi's "Soft" stabilising function pads, which are available in 3 different designs - the Soft1 mat provides the most stable base. Having placed the Vibrosphere® on the pad close to a wall/wall bar you should support yourself only with your fingertips and try to balance without any support at all if possible. The best vibration effect on the lower extremities is obtained without shoes.

Bear in mind that the training can have a high impact on the joints and muscles, therefore the training should be gradually intensified, as in general training. Some people might feel discomfort due to the training i.e. feeling of nausea or dizziness. Start carefully, for example, by placing only one foot on the Vibrosphere®.

Precautions when training on the Vibrosphere®

Training on the Vibrosphere® is a powerful training method and there are certain conditions when you should avoid training or execute caution. Most people are always able to perform some exercises, for example, a hip implant does not stop a person from circuit training without weights or training the upper part of the body.

There are some general precautions that you should take when training with the Vibrosphere®:

Avoid training in case of:

- Pregnancy
- Serious circulatory problems such as thrombosis
- Cardiovascular complaints
- Fever conditions
- Acute lumbar disc problems
- Fractures that are not healed
- Rehabilitation following eye surgery

Execute caution in cases of:

- Rehabilitation after ligament surgery: wait at least 3 months before starting your training and only then under the supervision of a physiotherapist
- Lumbar disc problems
- Joint implant surgery
- Arthritis
- Experiencing pain in the injured area during training

In the event of pain, discomfort or if you have any doubts, please consult your doctor, physiotherapist or personal trainer before continuing with the training.

ProMedVi® Basketball:

- The name of the exercise is written at the top of the page.
- The aim describes the primary muscles trained.
- For every exercise we recommend
 - time: 30-90 seconds for 3 sets
 - frequency: 20-45 Hz (about 30-35 Hz for muscle activity, 35-45 for circulation - and sensitivity training). We recommend that you to start with 30 Hz for 30 seconds, up to 3 sets and increase gradually.
- Maintain an effective time of vibration training of up to maximum 15-20 minutes per session with pauses in between.
- Choose a number of exercises (maximum 10) that suit your intended goals for the training.
- The instruction describes what to concentrate on when performing the exercise.
- For all exercises:
 - Pull the navel inwards and upwards to involve the transverse abdominal muscle
 - Breathe regularly and exhale slightly forced through your mouth.
 - The shoulders should be relaxed in exercises where the arms are not involved. Keep the shoulders down and curved slightly backwards.
 - Keep your head straight and your eyes fixed on a point in front of you, unless the instructions state otherwise.
- Intensification describes the developments of the exercise.
- Bear in mind that a development of difficult in an exercise can be achieved by closing your eyes, increasing the time or changing the Soft pad.
- If you experience headache or discomfort due to the vibrations, try bending your knees more.
- Start by placing both feet approx. 20cm apart on the Vibrosphere®. Hold onto a support if needed. Look straight ahead. Keep your back straight with knees slightly bent. Then you begin to perform the Vibrosphere® exercises.
- In exercises where your hands are placed on the Vibrosphere® training gloves or the blue training pad may be used.
- Train without shoes for the best results.

1. DRIBBLING EXERCISE ON ONE LEG



- Aim:** Balance, isometric strength and control of the hip- and knee extensors and the hip abductors, core stability, coordination
- Performance:** Stand with one foot in the middle of the Vibrosphere®. Dribble the ball on one side of your body. Maintain your balance and avoid swinging.
- Intensification:**
- Dribble the ball from one side to the other in front of you

2. "AROUND THE BODY" ON ONE LEG



Aim: Balance, isometric strength and control of the hip- and knee extensors and the hip abductors, core stability, coordination

Performance: Stand with one foot in the middle of the Vibrosphere®. Circle the ball around your body. Maintain your balance and avoid swinging.

- Intensification:**
- Circle the ball around your leg
 - Circle the ball under your knee



Around your leg



Under your knee



3. FIGURE 8 DRILL



Aim: Balance, core stability, coordination, isometric strength of the foot-and knee muscles

Performance: Stand with one foot in the middle of the Vibrosphere® and the other one on the floor. Circle the ball in a movement like the number 8 through/between your legs.

Intensification:

- Use two Vibrosphere®, one foot placed on each

4. OVERHEAD PASS



Aim: Balance, core stability, coordination, isometric strength of the foot-and knee muscles

Performance: Stand with one foot in the middle of the Vibrosphere®. Throw and catch the ball with both hands. Maintain your balance.

Intensification:

- Formshooting: Use two Vibrosphere®, one foot placed on each and shoot the ball against the hoop

5. DIFFERENT PASSES



Onehand pass from the side

Aim: Balance, core stability, coordination, strength for the upper extremity

Performance: Stand with one foot in the middle of the Vibrosphere®. Throw and catch the ball with a partner or against a wall. Maintain your balance.

Onehand Baseballpass



Overheadpass



Chestpass



6. WEIGHT LIFTING SIDEWARD'S



Aim: Balance, core stability, coordination, strength for the upper extremity, Mm.Deltoideus.

Performance: Stand with one foot in the middle of the Vibrosphere®. Hold a dumbbell or another weight in your hand. Lift your hands from behind the back sideward's and up above your head and then back again. When you are back in the starting position, move the dumbbell/weight from one hand to the other. Perform the same movement and change again. Maintain your balance.

Intensification:

- Use heavier weights
- Use weights in both hands

7. BALANCE COORDINATION



Aim: Dynamic balance, coordination, core stability, eccentric strength in the hip extensors

Performance: Stand on one leg in the middle of the Vibrosphere®. Lift the other knee to 90°. Keep hands straight above your head. Lean your upper body forward and move your arms downwards against the floor. Maintain your balance by stretching the other leg backwards.

Intensification:

- Use heavier weights
- Use weight cuff around the foot

8. SQUAT WITH HEELRAISE



Aim: Dynamic strength and control of the plantar flexors, dynamic strength of the hip abductors and the hip extensors. With intensification: core stability and back rotators

Performance: Use two Vibrosphere®. Stand hip-width on the Vibrosphere® or one leg on each Vibrosphere®. Hold a dumbbell or another weight in your hands. Bend your knees. Keep your back straight. Stretch your legs and lift your arms above your head at the same time. At the end of the movement, raise your heels. Lower your heels and arms to starting position.

Intensification:

- Use heavier weight
- Instead for lifting your hands above the head choose one side and rotate your upper body in this direction

9. SQUAT



Aim: Dynamic strength of the hip extensors and knee extensors, core stability

Performance: Use two Vibrosphere®. Stand with your feet shoulder-width apart, one foot in the middle of each Vibrosphere®. Keep your feet straight and your knees behind your toes. Do squat as far as your ankle joint allows. Hold a barbell in your hands in high with your knees. Stretch your legs and lift your hands upwards to the height of your shoulders and then above your head. Lower your arms and bend your knees back to the starting position.

Intensification:

- Use weights on the barbell

10. SIT-UPS



Aim: Core stability, Groin injury prevention

Performance: Use two Vibrosphere®. Place one foot in the middle of each Vibrosphere®. Place the thoracic part of your back on a Swiss ball. Keep an isometric contraction of the abdominal muscles in a static trunk flexion. Keep arms extended above the head and move them back and forth.

Intensification:

- Use a medicine ball in your hands
- Squeeze your knees together with a ball in between

11. SHOULDER AND CORE STABILITY 1



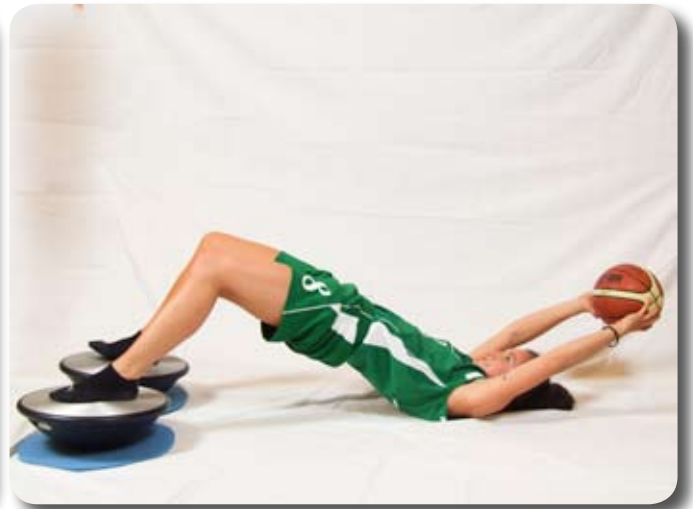
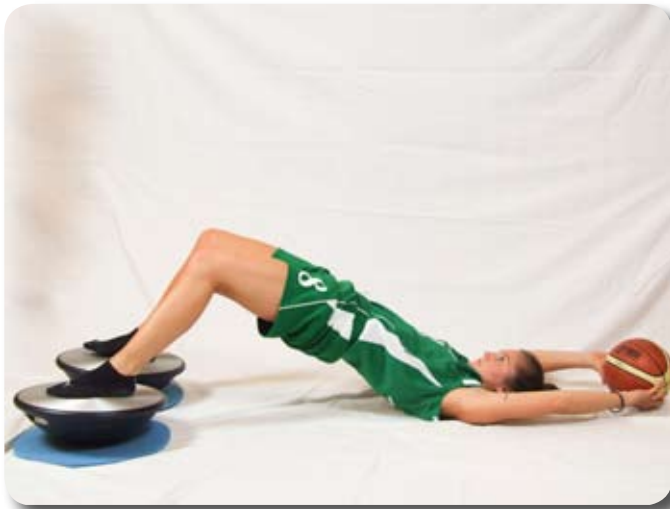
Aim: Core stability, isometric strength and control in the scapula and shoulder stabilisation muscles

Performance: Use two Vibrosphere®. Place your hands in the middle of each Vibrosphere®. Activate the abdominal muscle. Place a Swiss ball under your pelvis and another ball between your feet. Lower the shoulders and keep an isometric contraction of the scapula's stabilising muscles. Roll forward and backward on the Swiss ball. When rolling forward lift your feet a little higher and when rolling backward go back to the starting position with your feet. Maintain the scapulas down during the exercise.

Intensification:

- Place the Swiss ball farther down against your knees and feet while performing the same exercise
- Place the Swiss ball farther against your stomach and keep still while lifting your legs (with the ball in between) higher

12. SHOULDER AND CORE STABILITY 2



Aim: Core stability, strength in hip extensors, strength and control in the scapula and shoulder stabilisation muscles

Performance: Use two Vibrosphere®. Place one feet in the middle of each Vibrosphere®. Activate the abdominal muscles. Move buttocks up and hold the position. While holding a ball in your hands, lift your arms from the floor and move them back and forth. Hold this position and then get back to start position. Alternative: Move your buttock up and down while activating the hip extensors and combine it with the same arm movements.

Intensification:

- Place a boll between your knees and squeeze it
- Lift one foot from the Vibrosphere® while performing the same exercise. Avoid curving your back inwards

13. CORE STABILITY



Aim: Core stability, groin injury prevention

Performance: Place your forearms on the Vibrosphere®. Stretch your legs. Activate your abdominal muscles and avoid curving your back inwards. Keep hips and knees lightly bent. Alternate lifting your right and left foot a couple of centimeters from the floor with constantly activated abdominal muscles.

Intensification:

- Move your leg sideways
- Use a weight cuff around the moving leg

14. PUSH –UP



Aim: Dynamic strength and stamina in the scapula and shoulder stabilizing muscles, core stability

Performance: Use two Vibrosphere®. Place one hand in the middle of each Vibrospheres®. Activate the abdominal muscles. Push your body up and release slowly. Keep the scapulas pulled back during the exercise.

Intensification:

- Place a Swiss ball under your shins
- Vary the position of the elbows

15. BARBELL EXERCISE



Aim: Dynamic strength for the hip surrounding muscles, core stability

Performance: Place one foot in the middle of the Vibrosphere®. Hold a barbell or similar behind your back. Hold the barbell with one hand behind your neck and the other in the lumbar region. Keep your upper body in a stable position. Take a step on to the Vibrosphere®. Bend the other knee and hip in 90°. Go back to the starting position and repeat.

Intensification:

- Continue the exercises on the Vibrosphere® by taking a step forward and bend your knee to make a lunge and then return to starting position

16. CORE STABILITY



Aim: Core stability, isometric control of the lower extremities

Performance: Sit/half standing on a Swissball. Place one foot in the middle of the Vibrosphere®. Activate the abdominal muscles. Lift the other leg as high as possible while still remaining in a stable position. Do bicep curls with both arms.

Intensification:

- Place your arms above your head
- Make simultaneous movements with your arms

STRETCHING: HAMSTRINGS



Aim: Stretching of the hamstring muscle

Performance: Place the Vibrosphere® on a chair. Place one foot in the middle of the Vibrosphere®. Lean your upper body forwards and towards the Vibrosphere®. Keep your back straight. Feel the stretching on the backside of your leg. Hold for 20-30 seconds.

STRETCHING: GASTROCNEMIUS



Aim: Stretching M. gastrocnemius

Performance: Place one foot on a chair. Place the Vibrosphere® behind you on the floor. Place the other foot on the Vibrosphere® with your leg in an extended position. Bend the leg on the chair. Tilt the Vibrosphere® backwards a little bit to increase the stretch. Hold for 20-30 seconds.

STRETCHING: M. SOLEUS



Aim: Stretching the M. soleus

Performance: Place one foot on a chair. Place the Vibrosphere® behind you on the floor. Place the other foot on the Vibrosphere® and bend your knee. Tilt the Vibrosphere® backwards to increase the stretch. Hold for 20-30 seconds.

For more information:
www.promedvi.com



www.promedvi.com
info@promedvi.com
Tel: +46 (0)46 540 95 65