



**Physical ACTivity: the tool to
improve the quality of LIFE
in osteoporosis people**



Co-funded by the
Erasmus+ Programme
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EXERCISE BOOK

**TO IMPROVE THE QUALITY OF LIFE
IN PEOPLE WITH OSTEOPOROSIS**

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TERMINOLOGY HAS BEEN ADEQUATE TO FACILITATE THE
UNDERSTANDING THE CONTENTS BY USERS

TRAINING CYCLE



W1 Simple walking around the room

Check your posture, look straight ahead, take even steps and try to feel the weight on both feet.
Move your arms smoothly, but rhythmically



W1 Variants

- Increase the cadence
- Change step length
- Walking based on an external rhythm
- Perform half lunge every three steps

W2 Walking with exercises for upper and lower limbs



W2 Variants

- With upper limbs at your sides, open and close your hands
- Hands on shoulders, elbows high forward, extend arm forward
- Hands on the shoulders, elbows high outside, extend the arm outwards
- Each step bring the knee up and the opposite arm upward-forward
- Walk with shoulders circled forwards or backwards
- Clap hands up, back and forth alternately
- Walk with lunges forward (see S12)

- h) Side step with semi-squat (see S11)
- i) Passing the ball or a small tool from hand to hand over head, back and forth alternately
- j) Walking with abduction of the shoulders
- k) Walk with a circle of the hip

W3 Flex the head



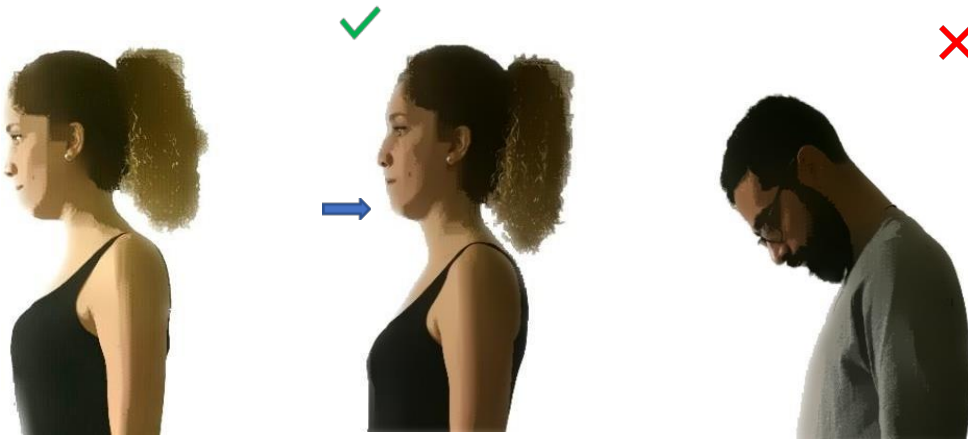
W4 Torque the head



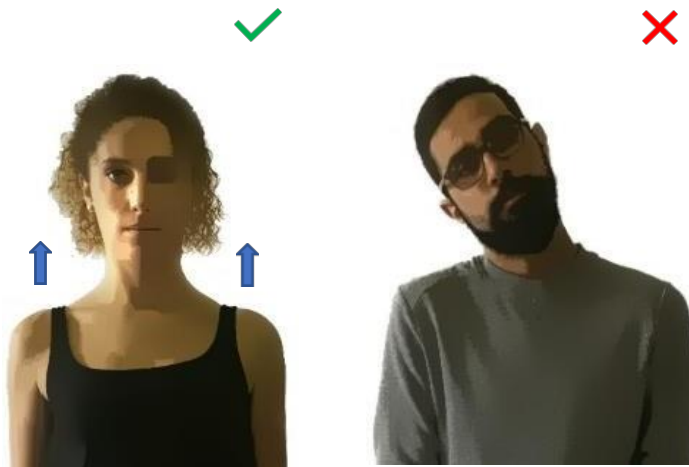
Be careful: Avoid the shoulders raising and protruding the neck forward

W5 Tilt the head



W6 Retropulsion and anteropulsion the chin


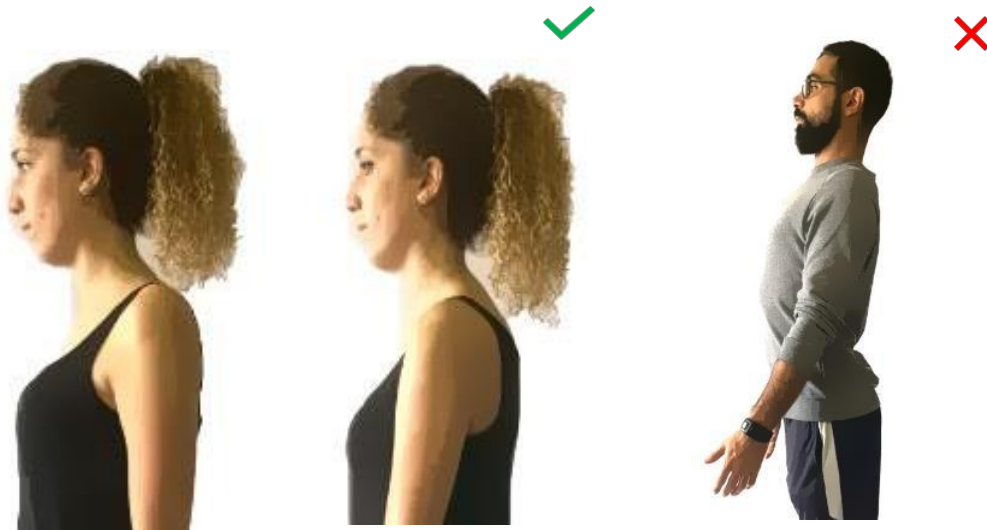
Be careful: do not flex the head

W7 Elevate and depress the shoulders


Be careful: Avoid the neck movements

W7 Variants

- a) Walking
- b) With closed eyes
- c) Marching

W8 Anteposition and reposition the shoulders**W8 Variants**

- a) Walking
- b) With closed eyes
- c) Marching

W9 Circling the shoulders

W10 Standing, keep the hands against the wall with elbows, extended adduction and abduction the shoulder blades

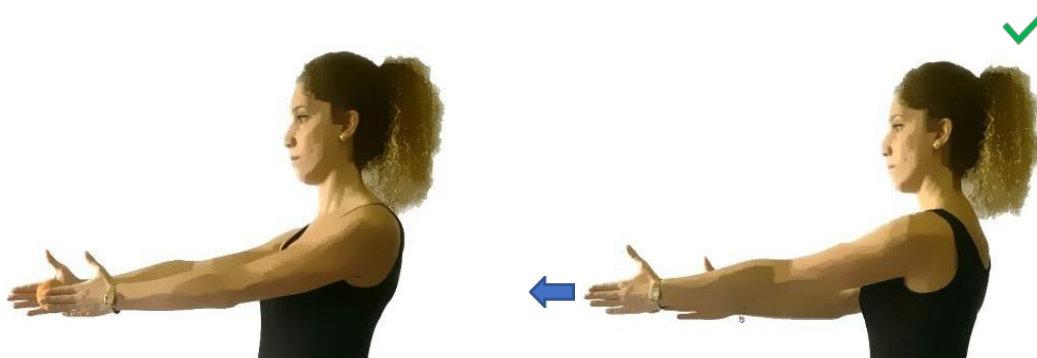


Be careful: do not bend the elbows

W10 Variants

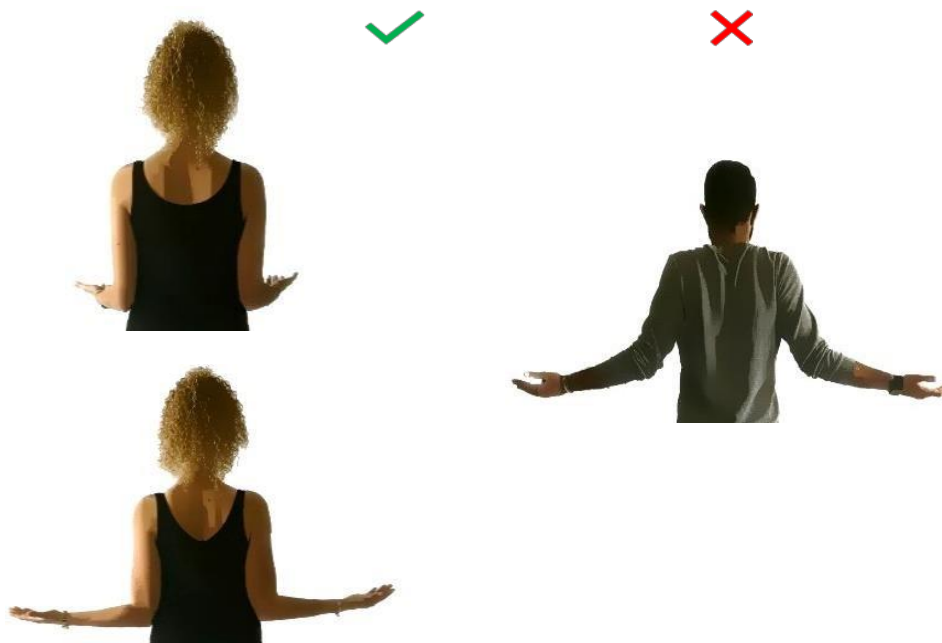
- a) Perform with a single limb

W11 Standing, shoulders flexed at 90°, elbow extended, holding a ball between the palms. Roll the ball forward in your hands by retraction and protraction the shoulders



W11 Variants

- a) Perform in lateral decubitus with knees and hip flexed

W12 Adduction of the shoulder blades

Be careful: Avoid lumbar hyperlordosis and keep the elbows close the body

W13 Hold the bar (normal grip), and flex the shoulders at 180° and return

Be careful: Avoid lumbar hyperlordosis and head movement

W14 Hold the wand (normal step), flex your shoulders at 180° then flex your elbows, and back



Be careful: Avoid lumbar hyperlordosis and head movement

W15 Hold the wand (normal step), flex your shoulders at 90° then extend and flex your elbows



W16 Standing, keep the hands against the wall with elbows bent, with the help of fingers, rolle the ball against the wall. Flex the shoulder and extend the elbow

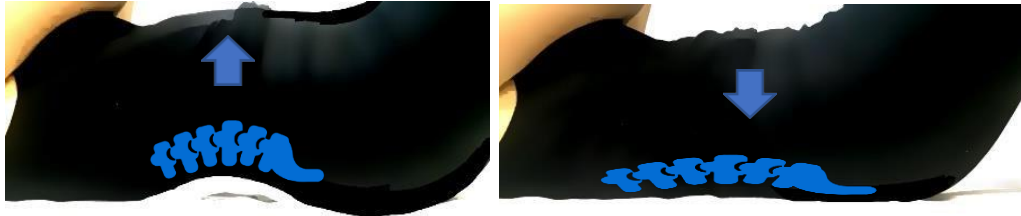


W17 Starting arms along the hips with a ball in one hand, abduct the shoulders with extended elbow, pass the ball from hand to hand with upper limbs at your sides, and back



Be careful: do not raising the shoulders and avoid head movement

W18 Antiversion and retroversion the pelvis by inhaling in antiversion and exhaling in retroversion



W16 Variants

- Against the wall;
- Stand up in standing

W19 Standing with feet shoulder-width. Keep the knee extended, shift the pelvis left and right, with knees extended



W20 Standing with feet shoulder-width. Keep the knee extended, bring the pelvis forward and backward



W21 Standing with feet shoulder-width. Perform pelvic circles in both direction



W22 Alternate rotations the ankle



B1 Standing in semi-tandem

Run next to the shoulder pad/table with one hand in support



B2 Standing in tandem

Perform it close the wall



B3 Semi-tandem walking

Perform it close the wall



B4 Tandem walking

Perform it close the wall



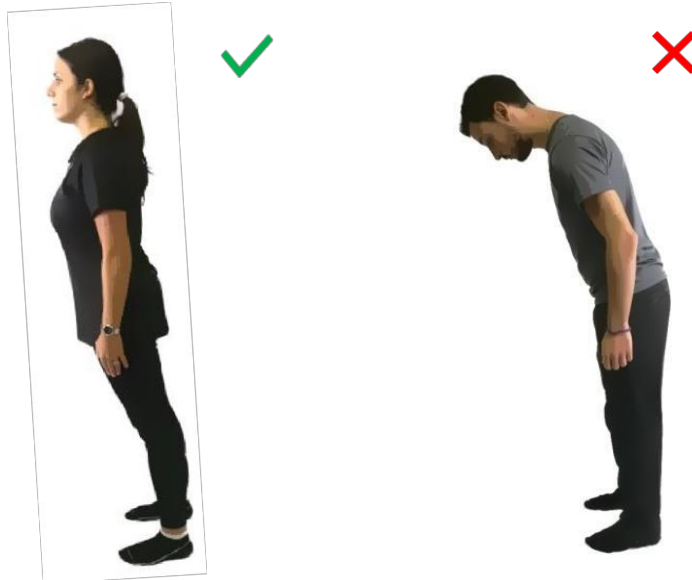
B5 Standing with a ball under the forefoot, press the ball. Repeat with the ball under the heel



Be careful: check the posture

B6 Standing move weight on the forefoot

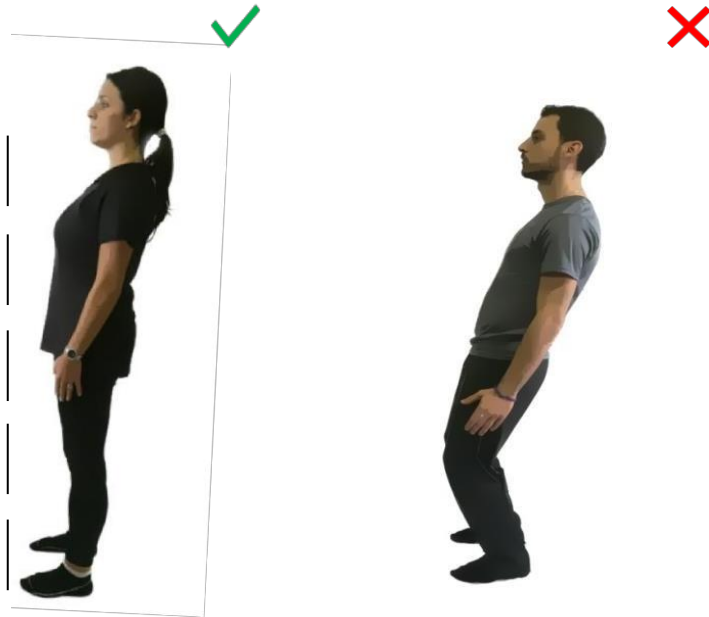
Perform it close the wall with move forward the center of mass and return



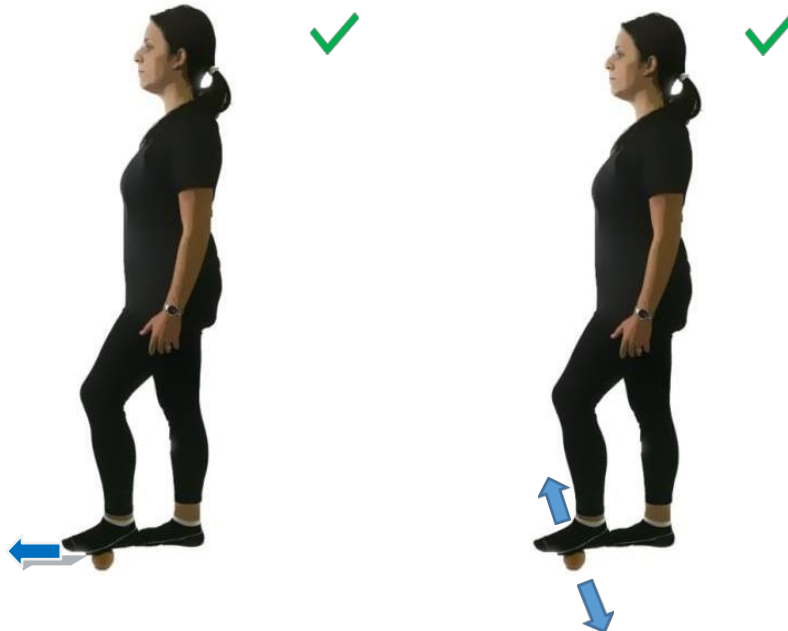
Be careful: do not raise your heel

B7 Standing backward the center of mass and return

Perform it close the wall and do not rise the forefoot



B8 Standing or sitting, roll the ball in all directions under foot



S1 Standing, back and upper limbs against the wall with shoulder in slight abduction and supine forearm, press the back of your hands against the wall

Standing with shoulders and arms against on the wall. Slightly wide arms and palms forward



Be careful: Keep back and pelvis against the wall

S2 Standing, hips slight abduct, knees slightly bent, shoulders and elbows flexed at 90° pronate forearm (candles position). Perform horizontal flexion and forearm supination



S3 Standing, abduct the upper limb with forearm in neutral position



Be careful: Avoid shoulder offsets

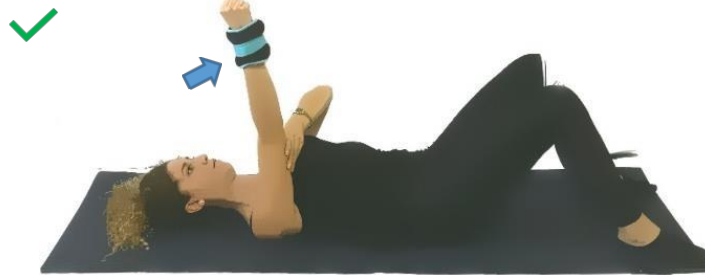
S4 Standing, flex the shoulder at 90°



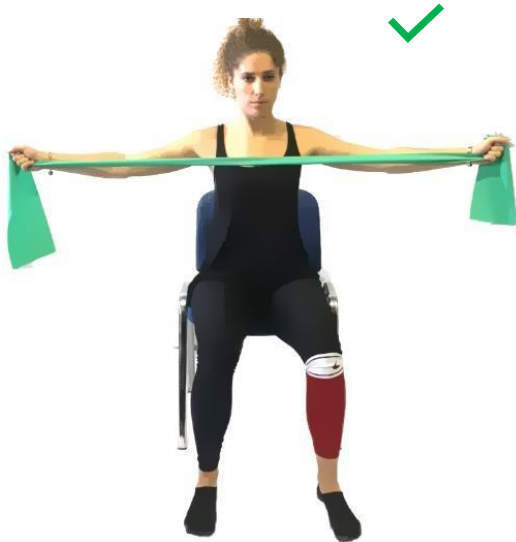
S5 Sitting with arms along the hips. Flex the elbows



S6 Supine. Shoulders flexed at 90° with extend the elbow, knees flexed with feet in support extend the elbows



S7 Sitting, shoulders in scapular plane, holding an elastic, stretch elastic by shoulder horizontal extension



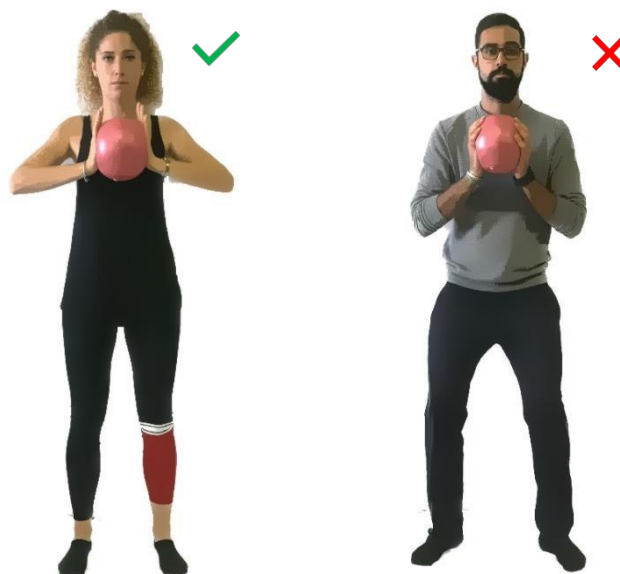
S8 Standing. Flexed shoulders at 90 degrees and forearms in a neutral position. Keeping the elastic stretched out in your hands, extend your shoulder to the neutral position by flexing your elbow at 90 degrees



Be careful: Keep your elbow close to your body

S9 Holding an elastic band with both hands, prone and supine the forearm**S9 Variants**

a) Match, in addition to the rotation of the wrist, combine the elastic stretch

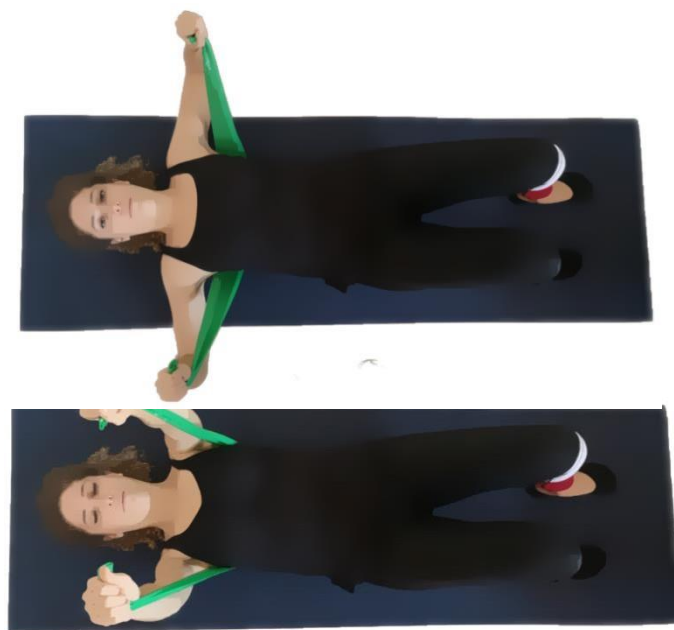
S10 Standing back against the wall, elbows flexed at 90°, shoulders slight abducted press the ball in your hands

Be careful: Do not lower your elbows

S11 Standing, with hands against the wall. Bend the elbows and return to the starting position



S12 Supine, knees and hips flexed with feet in support. Keep the elastic stretched with shoulders abducted and elbow flexed at 90°. Then extend the elbow



S13 Hold the wand at chest height. Forcefully push down the wand, make the abdominal muscle contract



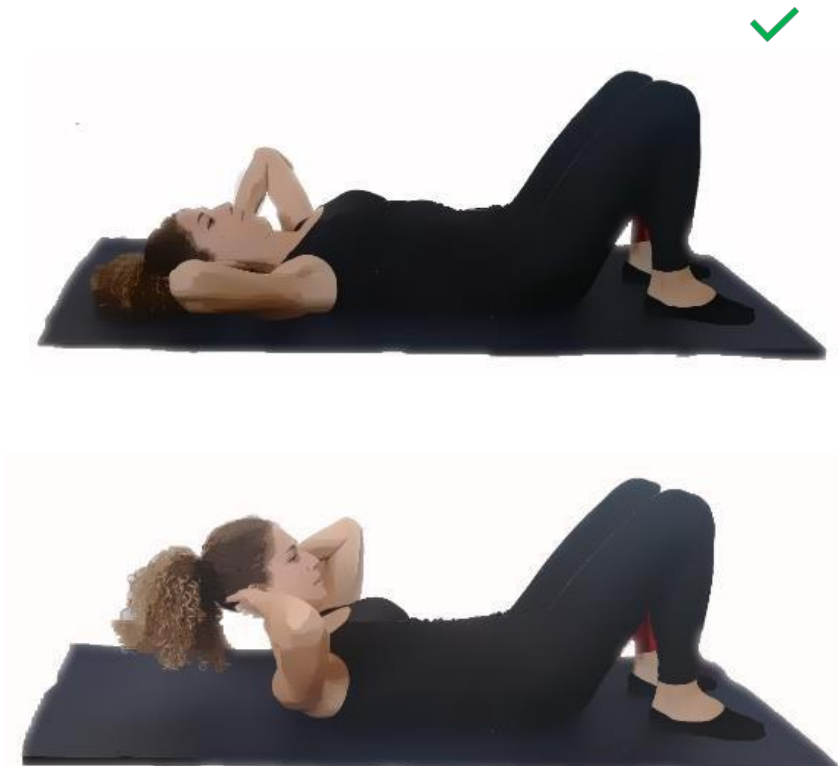
S14 Supine with flexed knees, flex the hip



S15 Stand on one leg, with knee flexed 90°, flex thigh on the pelvis.



S16 Supine, with knees and hips flexed. Perform in retroversion of the pelvis and then a flexion of the trunk. Keep the retroversion during the exercise





Be careful : Do not flex or extend the head

S17 Supine with knees and hips flexed at 90°. Place hands on knees and flex the trunk. Apply a contrary force against the knees



S18 Standing. Hold the elastic band and perform a controlateral trunk tilt





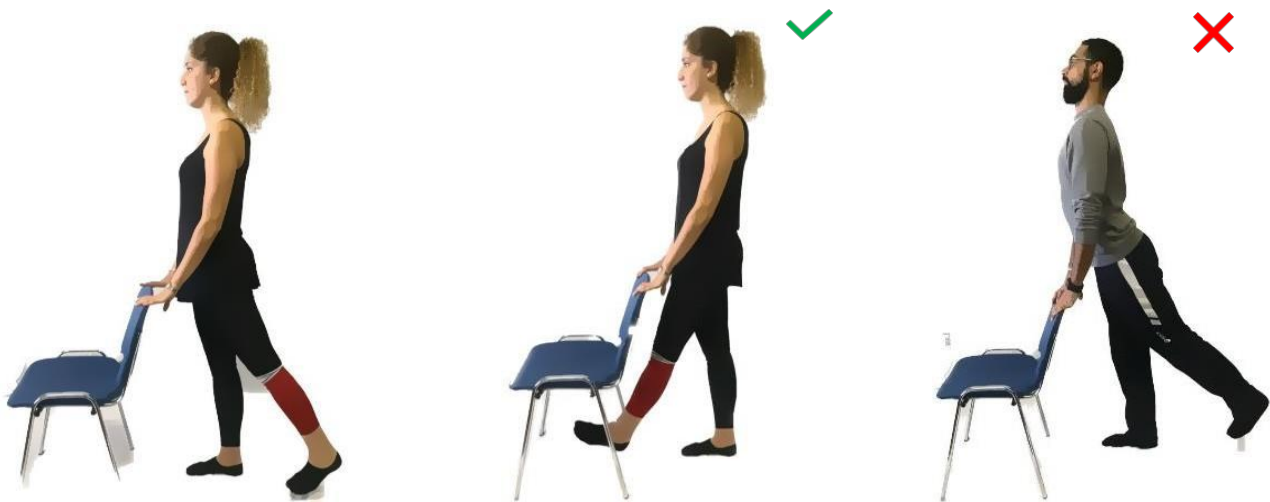
S19 Quadrupedic position flex the shoulder at 180° and extend controlateral hip (superman)



S20 Stand on one leg. Adduct and abduct the hip. Keep the foot dorsi-flexion



S21 Stand on one leg. Flex and extend the hip. Keep the foot dorsiflexion



Be careful: Avoid lumbar hyperlordosis

S22 Standing. Perform an ankle plantar-flexion



S23 Supine, knees and hip flexed. Extend the knee, keep the knees at the same height



S24 Sitting feet in support, knees and hip flexed. Extend the knee.



Be careful: check the posture

S25 Supine, a limb flexed with foot in support, the other limb extended, lift the limb off the ground

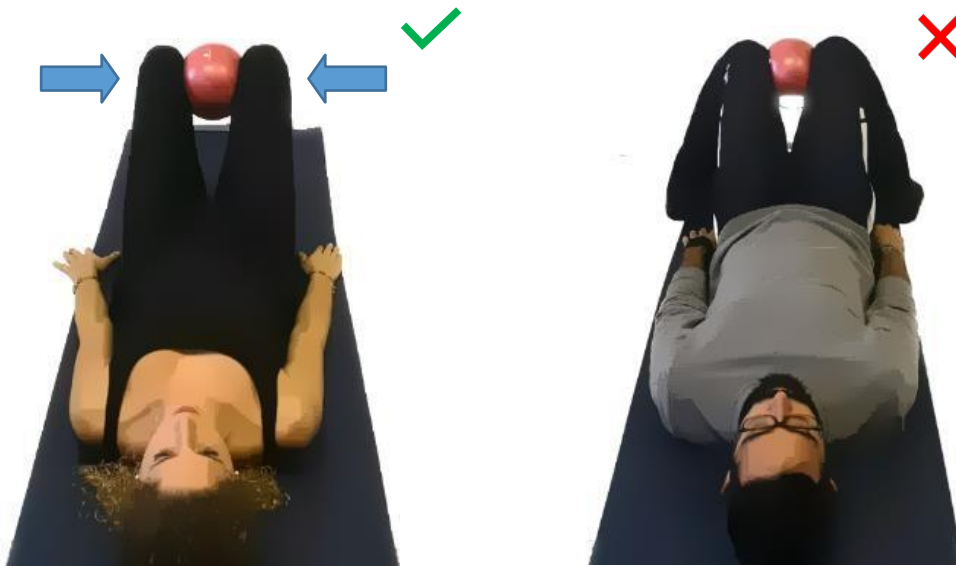


Be careful: keep knee extended

S26 Supine, flexed knees. Place a ball under the soles of the feet and roll it by extending and flexing the knee



S27 Supine, hip and knees flexed, feet in support on the ground. Squeeze the ball between the knees



Be careful: Do not move your feet away from each other

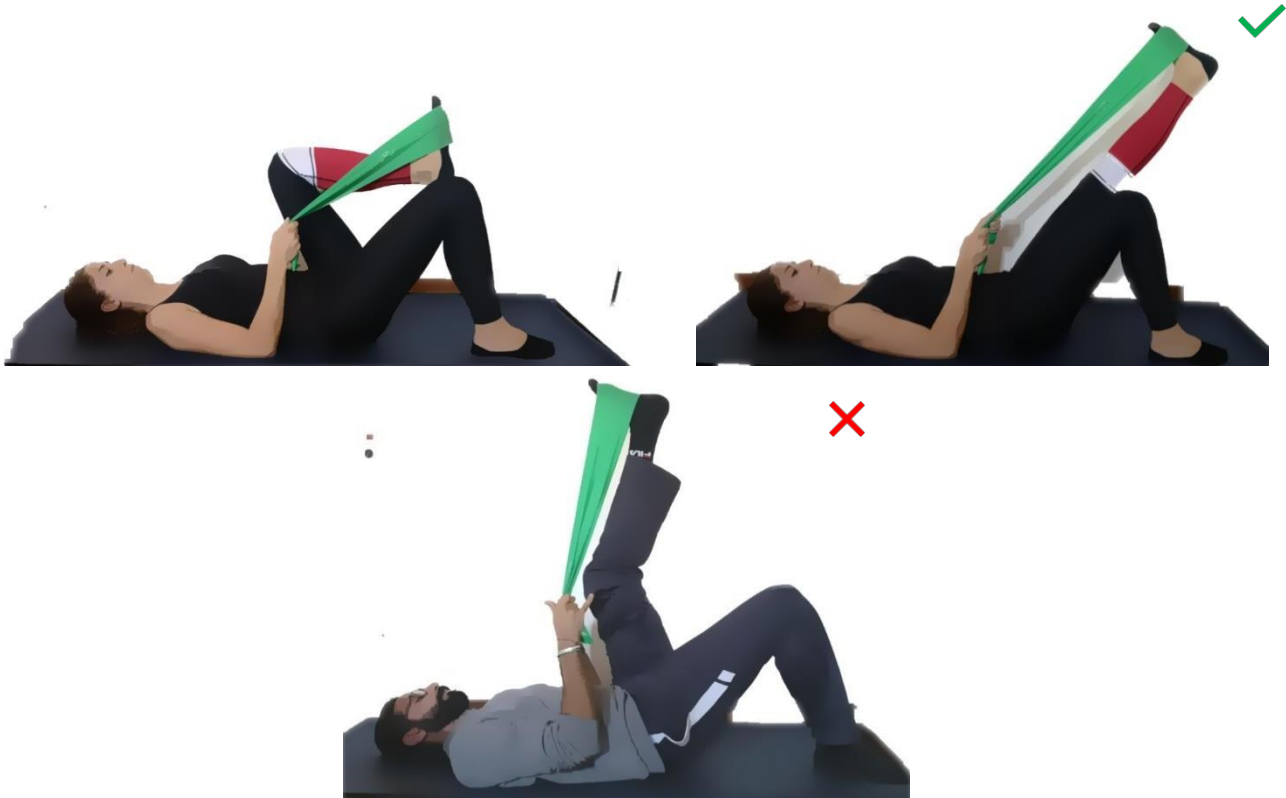
S27 Variants

- Sitting
- Keep contraction for 5 seconds

S28 Prone, with extended knee, extend the hip



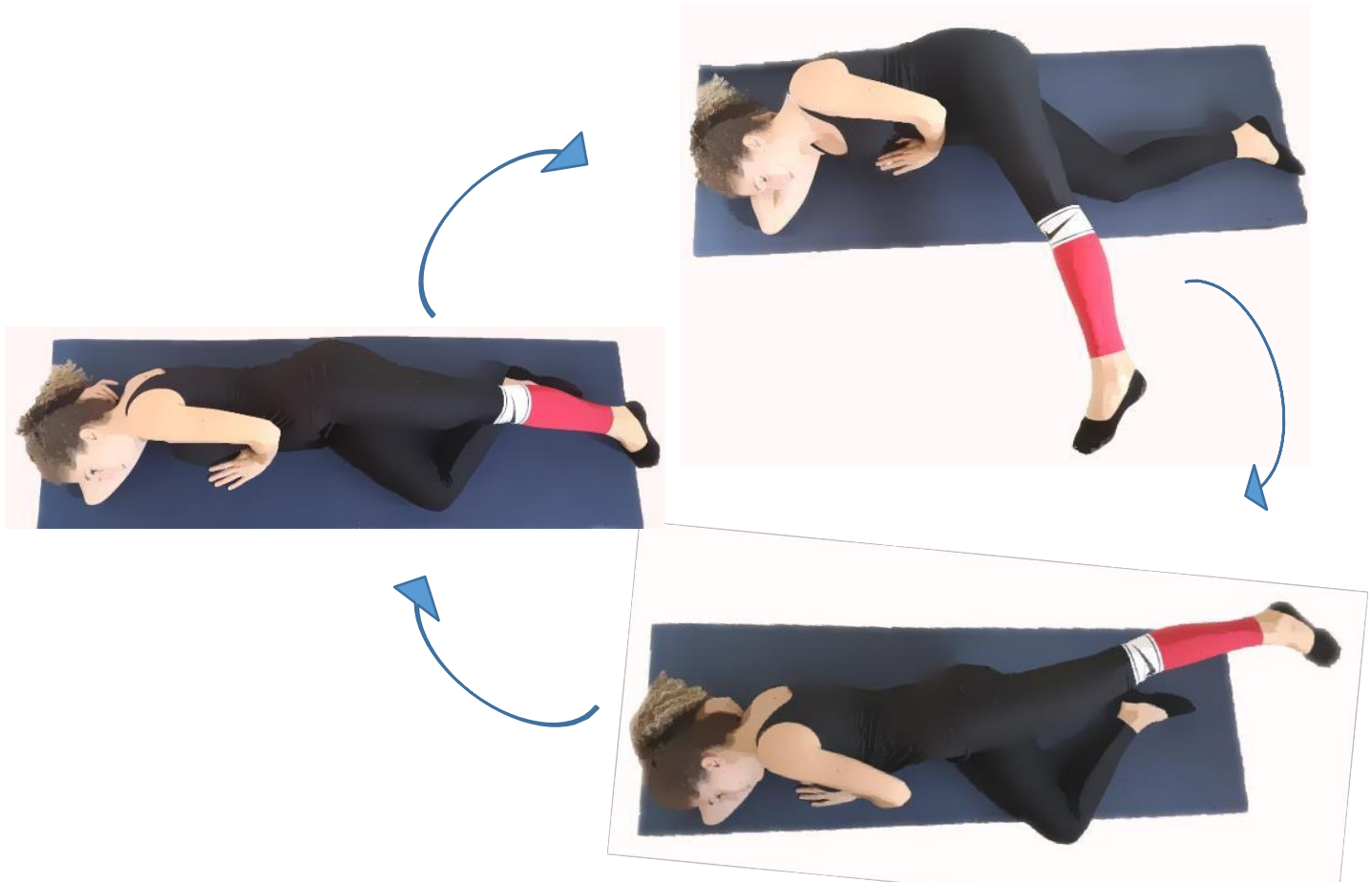
S29 Supine, a flexed limb with foot on the ground, the other limb with knee flexed and elastic band placed on the forefoot keep the elastic strength with hands. Extend the knee keeping the knee at the same height. Maintain the dorsal flexion of the ankle during movement



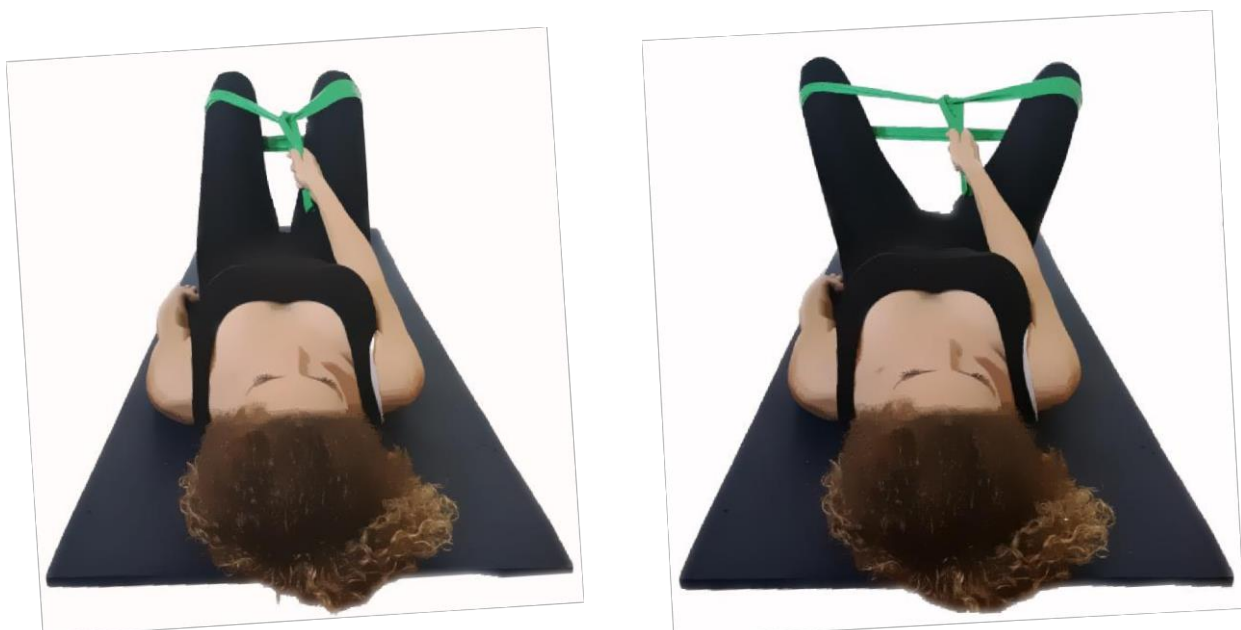
S30 Lie on your side, the lower limb in support keep the hip and knee flexed. Abduct controlateral limb



S31 Decubitus, the lower limb in support keep the hip and knee flexed. Flex and extend the controlateral limb



S32 Supine, hip and knees flexed, feet on the ground with elastic bend wrapped between the knees. Abduct the hips



S33 Supine feet in support and flexed knee, raise up the pelvis the mat (bridge)**S33** Variants

- a) Use ball between the knees
- b) Keep the position for 5 seconds

S34 Stand on one leg, flex the knee

S35 Back against the wall, hip and knee flexed at 90°. Hold the position



S36 Sitting, hands crossed to the chest. Sit up





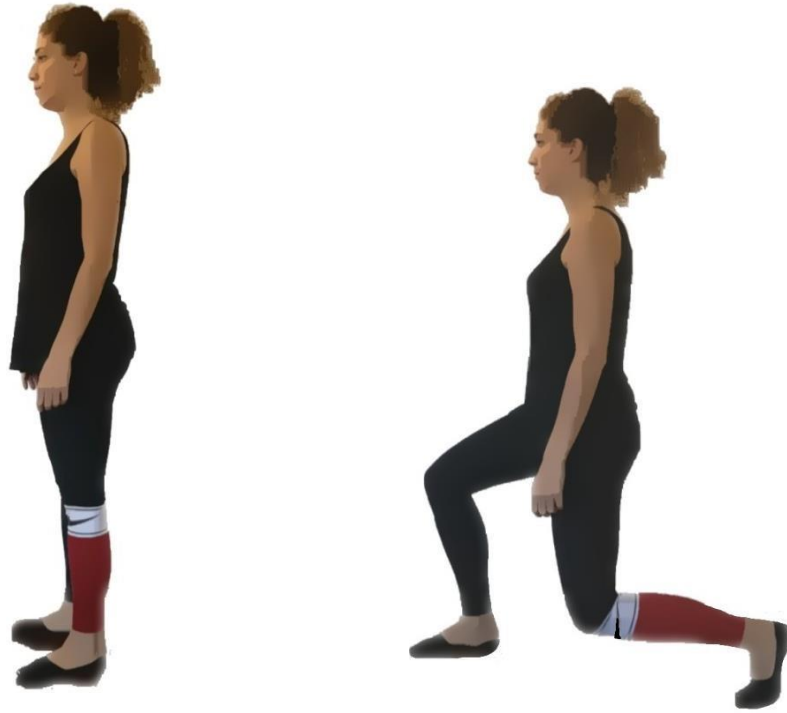
S37 Standing hips abducted at 30°. Bend the knees, keep the knees parallel to each other (Squat)



S38 Standing, perform a squat with an elastic band under the foot



I1 Standing, perform a lunge



I2 Standing, perform a lateral lunge



I3 Climb up and down a step



14 Standing, hands against the wall. Bend the elbows then extend forcefully to take the hands from the wall. Return with hand against the wall with flexed elbows



15 Quadrupedic position, with hands in support, flex the elbow of an upper limb and support the forarms on the mat. Repeat the movement with contralateral limb, then return to starting position



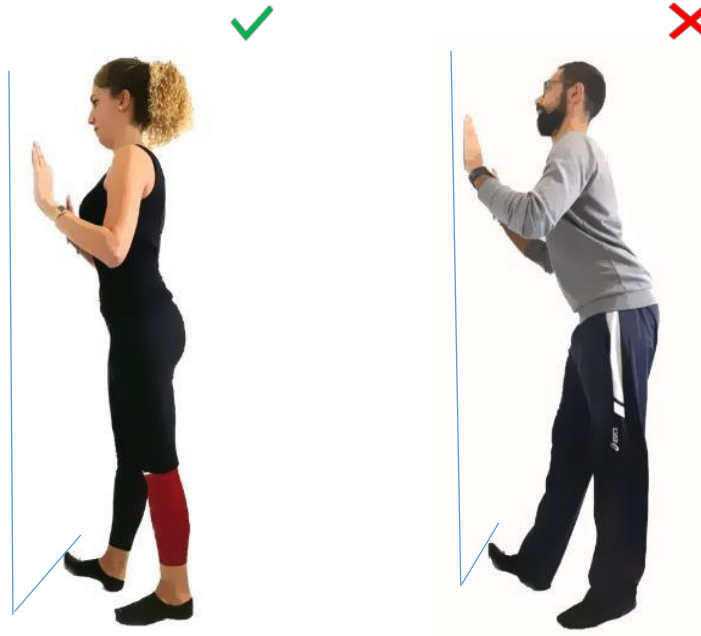
C1 Supine, knees flexed on feet in support. A hand on the abdomen and the other on the chest: increase the volume of the abdomen during the inhalation



C2 Supine with feet in support and knees bent: exhale and press the lumbar area onto the mat and return



C3 Standing facing the wall one foot maintains the dorsal flexion position with the forefoot in support of the wall



C4 Sitting, stretch the spine keeping the shoulders low



C5 Supine, knees flexed and feet in support, arms abducted at 90°. Move the knee on right. Return to start position and repeat on the other side



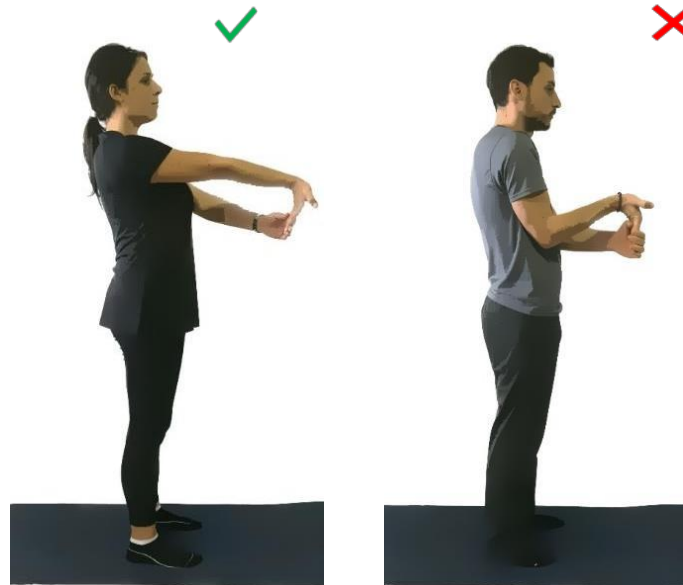
C6 Supine, knees flexed, feet in support gradually extend one knee bringing the foot upwards with the help of an elastic band under the forefoot



C7 Supine a leg extended in support, contralateral performs a hip and knee flexion. The hands follow through the movements



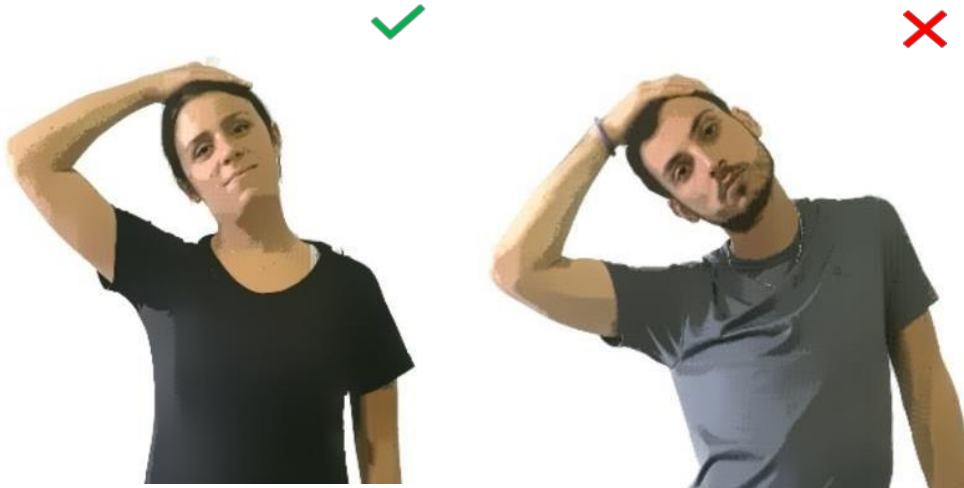
C8 standing, shoulder flexed at 80° elbows extended and forearm supinated, extend the wrist the other hands follow through the movements



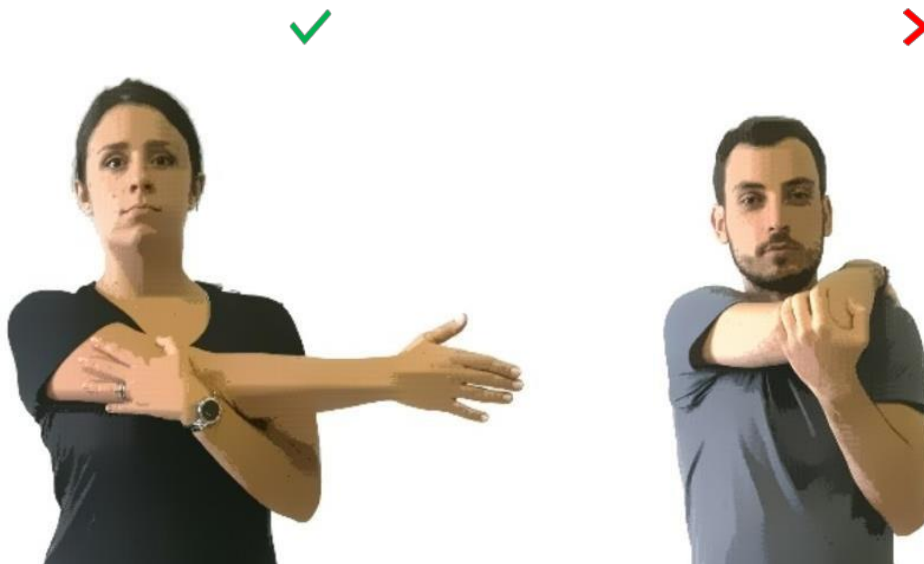
C9 Standing, flex the head. The hand push down the head



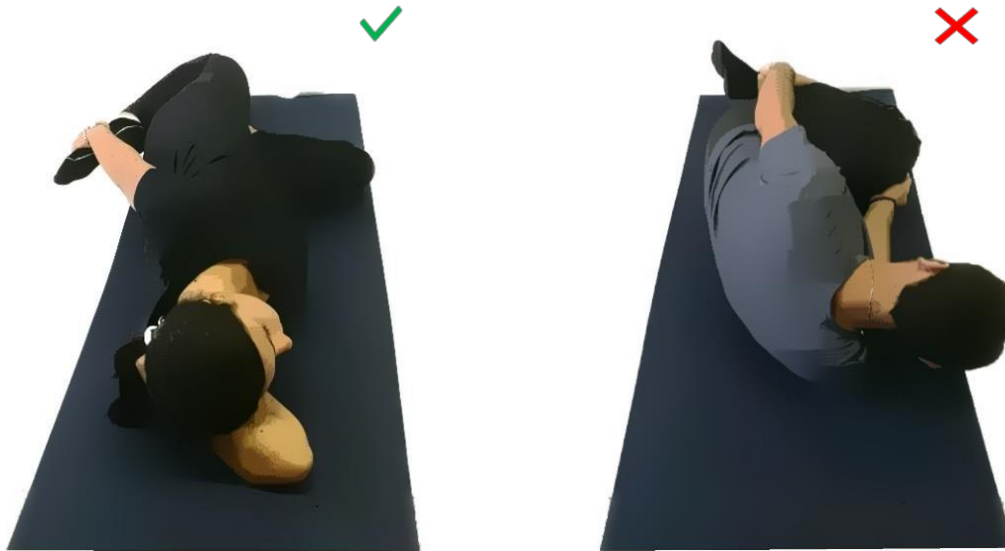
C10 Standing, tilt the head to the right and left, using the ipsilateral hand



C11 Standing, adduct and flex the shoulder at 90 ° keep the elbow extended and press with opposite hand on the humerus



C12 Lateral decubitus, hip and knee flexed hold the ankle and put it near thr gluteus with hip extension



C13 Standing, inhale while abduct the shoulder up to 180°and plantaflex the tibiotarsal than exhale while come back in neutral position



C14 Quadrupedic position. Inhale while extend the head and spine, exhale while flex the head and spine



C15 Quadrupedic position, bring the gluteus closer to the heels



C16 Standing, right side the wall. Perform orizzontal extension of the shoulder, putting the palm of the hand against the wall





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