

Rehabilitation Options in Management of LBP

Salekzamani Y .MD

Associate Professor

Physical medicine and Rehabilitation

Research Center

Tabriz Medical Sciences University

Factors to be considered

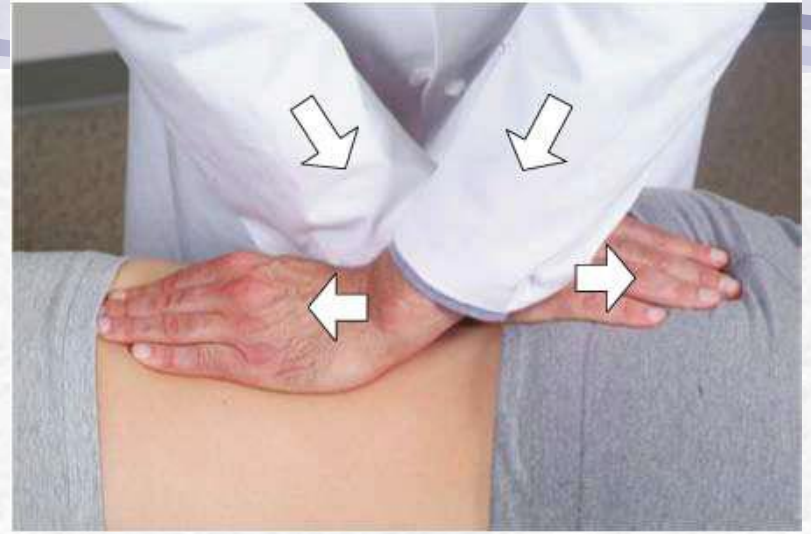
- Acute/Chronic
- Inflammatory/Mechanical
- Radicular/Nonradicular
- Patient related factors; age, occupation

Rehabilitation Options

- ✓ Rest
- ✓ Medications
- ✓ Area supporting; Taping/Orthotics
- ✓ Physical Modalities
- ✓ Electroacupuncture
- ✓ Manual Therapy
- ✓ Exercises
- ✓ Self Mobilization
- ✓ Hydrotherapy
- ✓ Back Care and Mechanics & Ergonomics

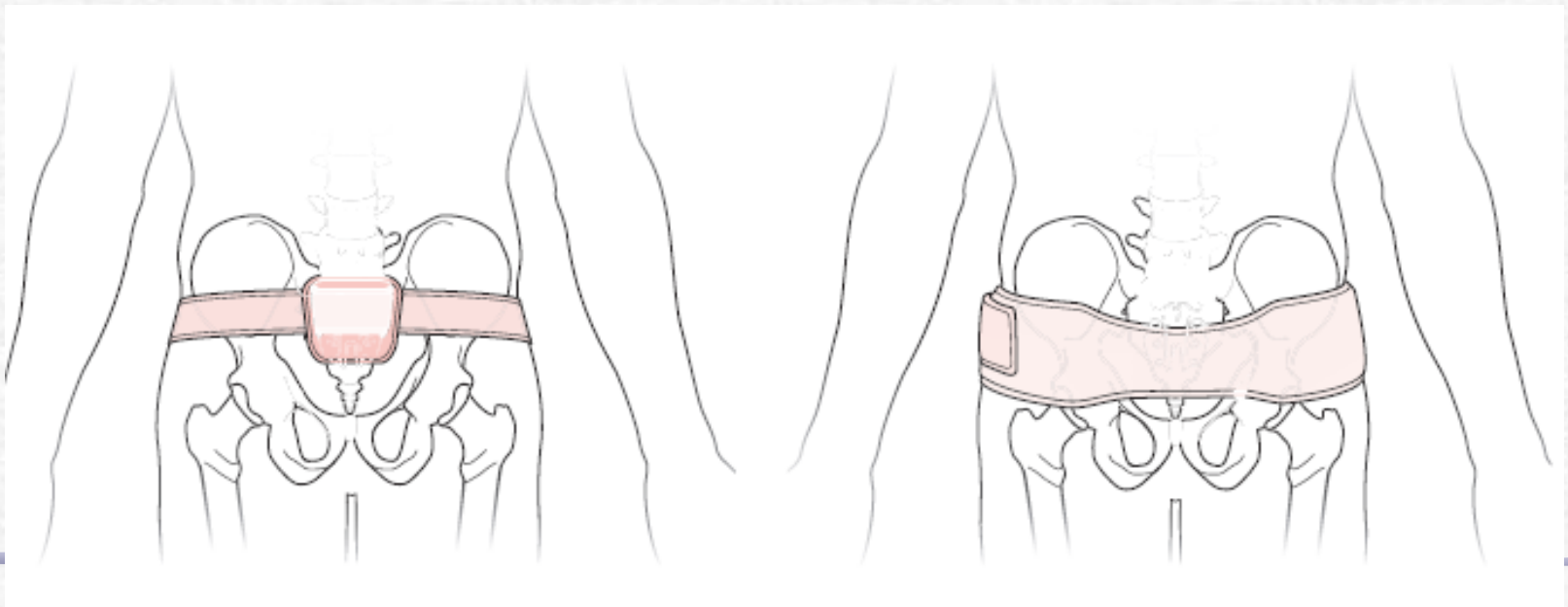
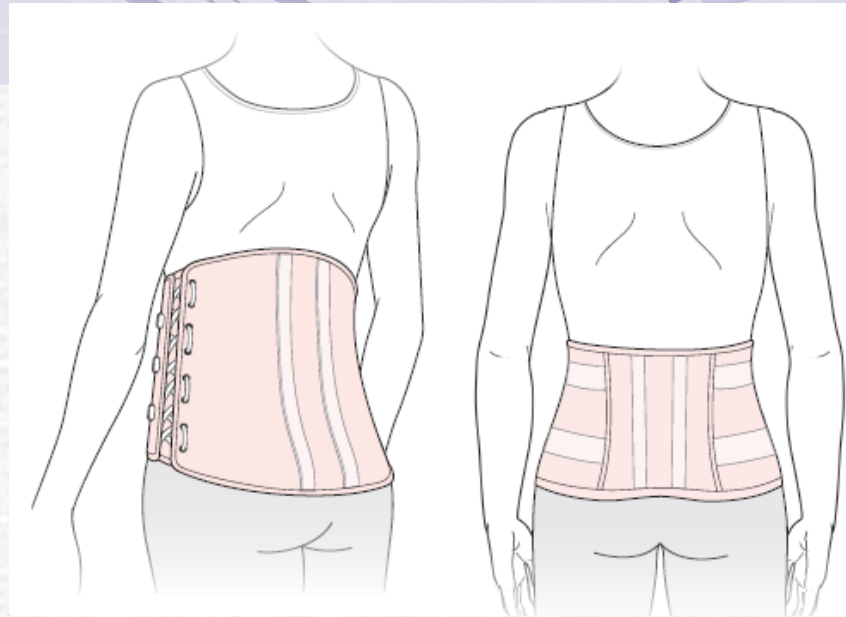
Manual Therapy

- Myofascial Techniques
- Articulatory Techniques



The image features a light blue background with decorative wavy lines in a darker blue shade at the top and bottom. The word "Orthotics" is centered in a bold, purple font.

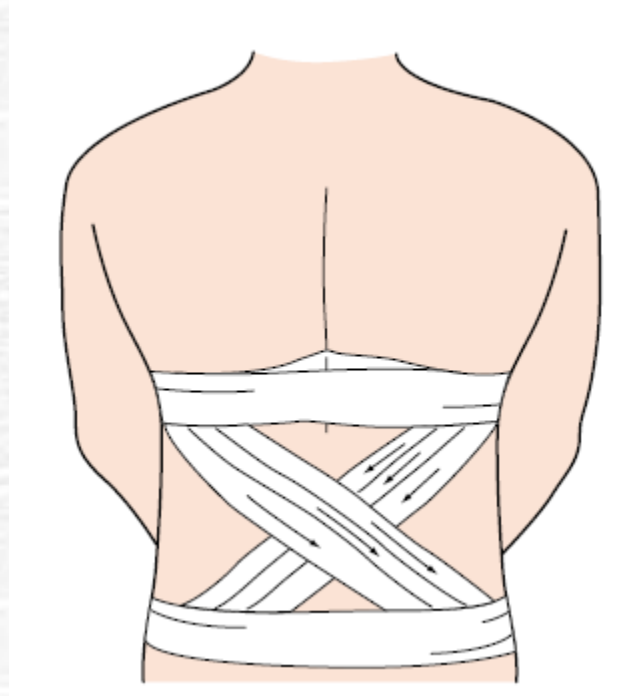
Orthotics



The image features a light blue background with decorative wavy lines in a darker blue shade at the top and bottom. The word "Taping" is centered in a bold, purple font.

Taping

Lumbar Spine Taping



Kinesio Tape



Electroacupuncture for Chronic Lower Back Pain

- ✓ Acupuncture points:
- ✓ Du 10, Du 15, Liv 3, Liv 9, Sp 2, Sp 5, UB 51.
- ✓ use of superficial acupuncture
- ✓ Patients are first examined to localize areas of "trigger points".
- ✓ Painful regions are typically found in the erector spinae, multifidus, iliocostalis and quadratus lumborum, iliopsoas, obliquus externus and internus abdominus, and rectus abdominus muscles.
- ✓ Sterile 30 gauge acupuncture needles are inserted to a depth of 4 mm into the skin and subcutaneous layers immediately overlying the trigger points.
- ✓ Care is taken to avoid penetrating the muscles or their fascia.
- ✓ The needles are left in place from 5 to 20 minutes.
- ✓ Electroacupuncture stimulus of 2 hz. at the threshold can be added to the treatment for increased effectiveness.

Classic Back Exercises

- Williams' Flexion Exercises
- McKenzie, Extension exercises

Williams' Flexion Exercises

- Paul Williams was an orthopedic surgeon who believed that lordosis was the cause of low back pain.
- Williams' flexion exercises are a series of six exercises that emphasize flexion

Exercise 1: Sit-up in a flexed-knee position to strengthen the abdominals.



Exercise 2: Pelvic tilt to strengthen the gluteal muscles.



Exercise 3: Single knee-to-chest and double knee-to-chest to stretch the erector spinae muscles.



Exercise 4: Seated reach to the toes with knees extended to stretch the erector spinae and hamstring muscles.



Exercise 5: In a quadruped position with one knee forward under the chest and the other hip and knee in extension to stretch the tensor fascia lata and iliofemoral ligament.



Exercise 6: Starting in standing and moving to a full squat to strengthen the quadriceps muscles.



McKenzie, Extension exercises

- advanced by Robin McKenzie a New Zealand physiotherapist
- emphasize trunk extension aimed at relieving posterior pressure on discs

Exercise 1: Prone lying for 5 minutes.



Exercise 2: lying prone on the elbows



Exercise 3: prone press-ups.



Exercise 4: The next exercise is trunk extension in standing.



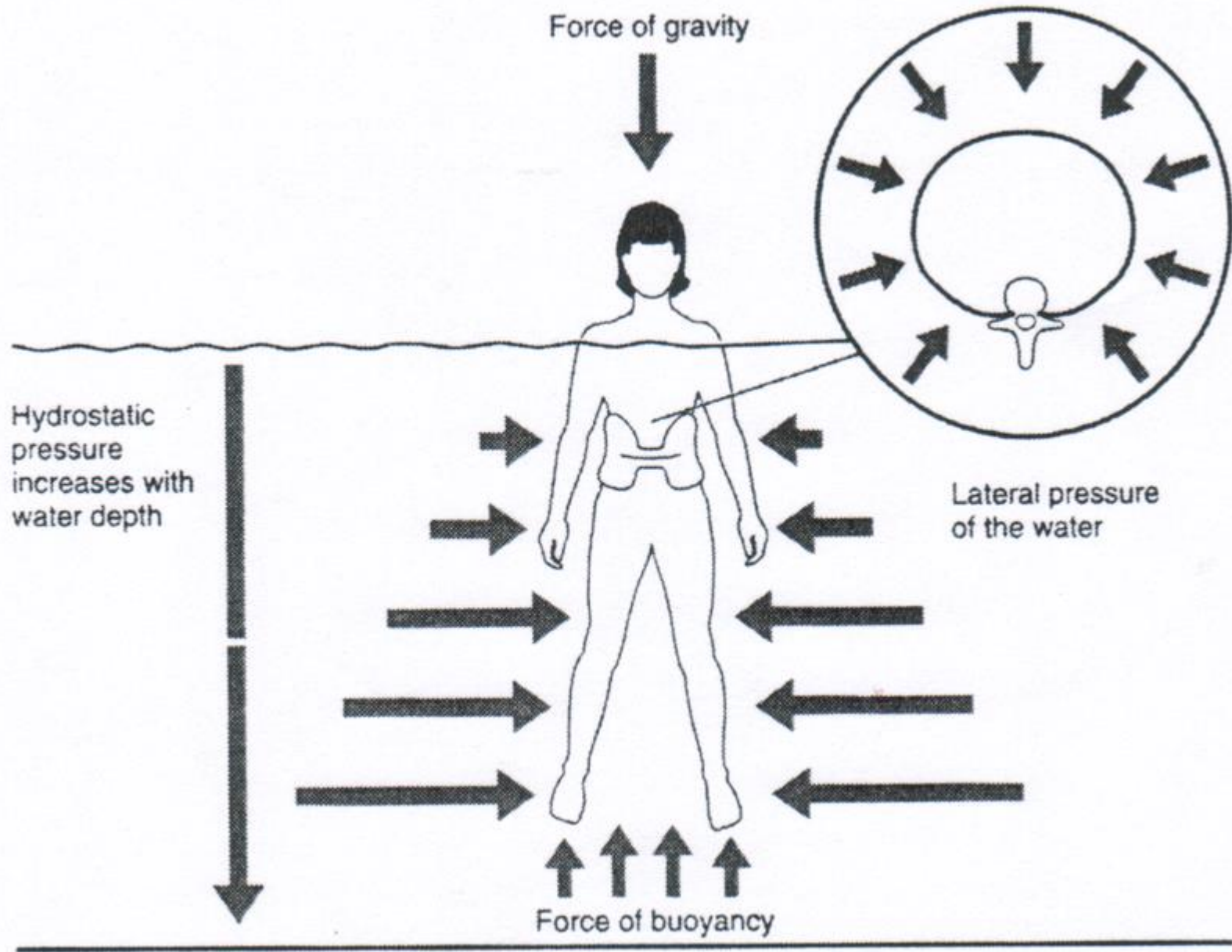
Exercise 5: Seated "cat-cow" exercise.



Exercise 6: both knees to the chest.



Aquatic Therapeutic Exercise for Spine



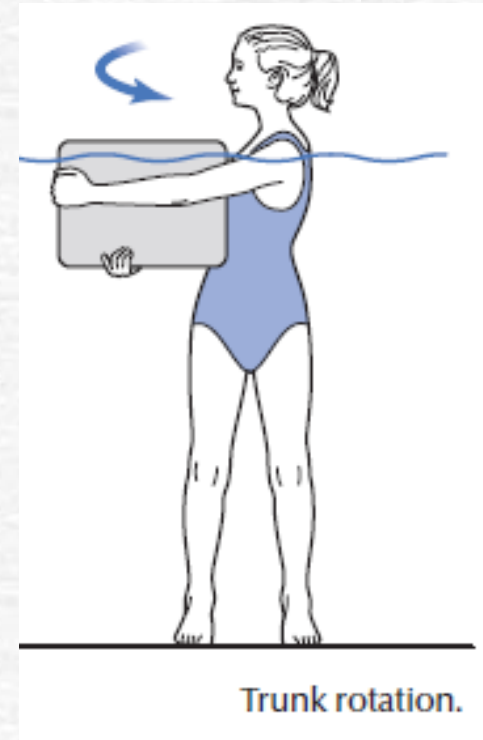
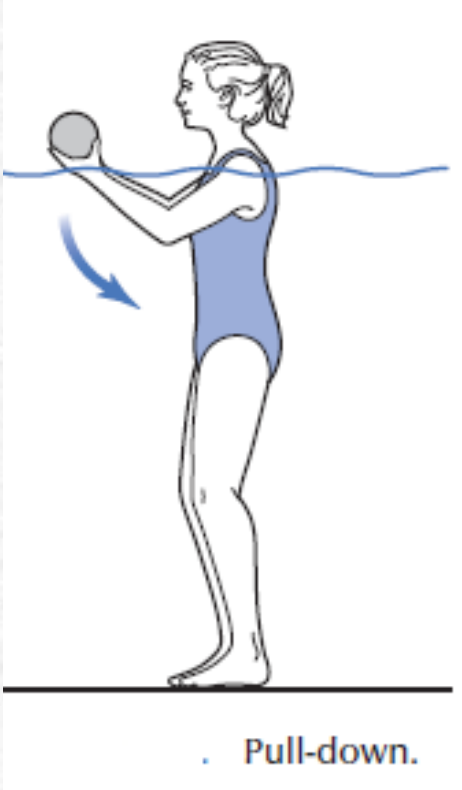
Force of gravity

Hydrostatic pressure increases with water depth

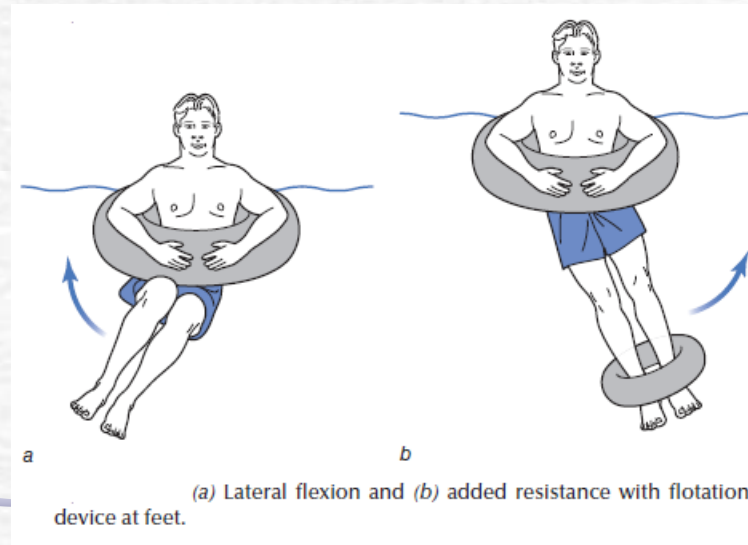
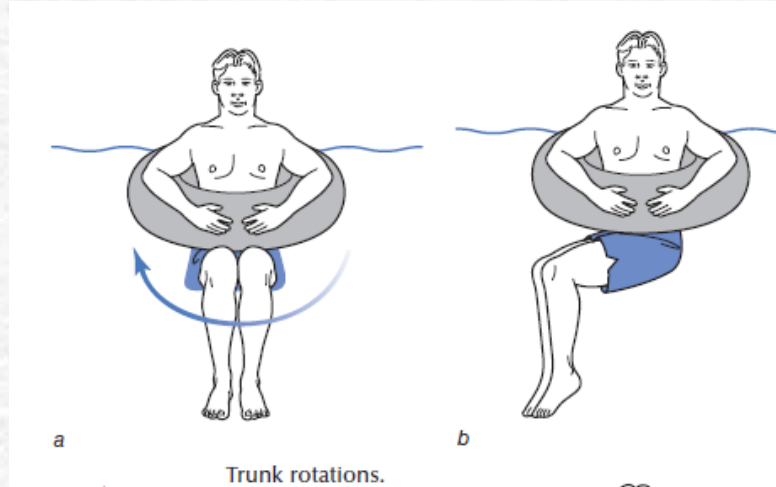
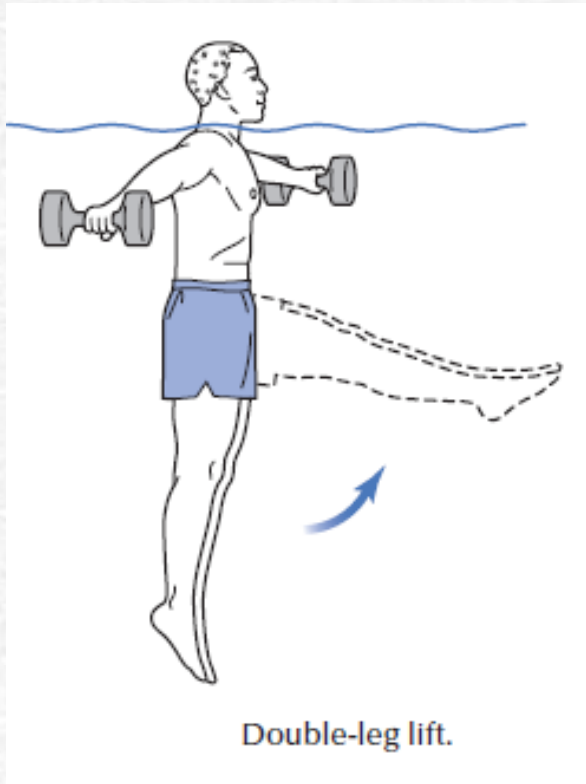
Lateral pressure of the water

Force of buoyancy

Shallow Water Exercise



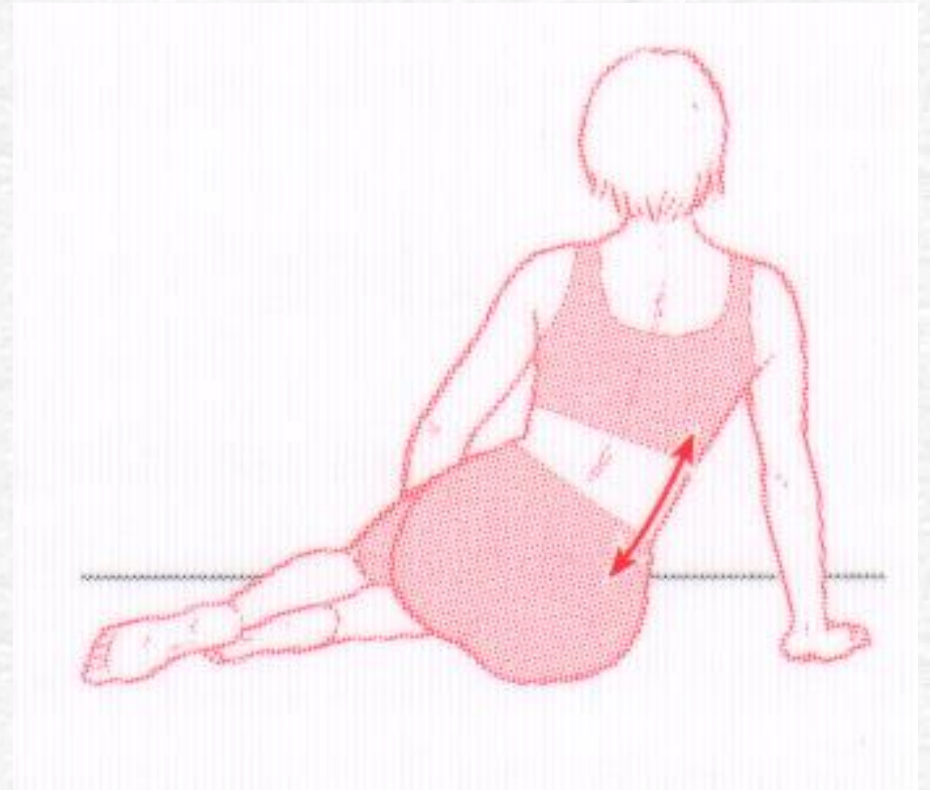
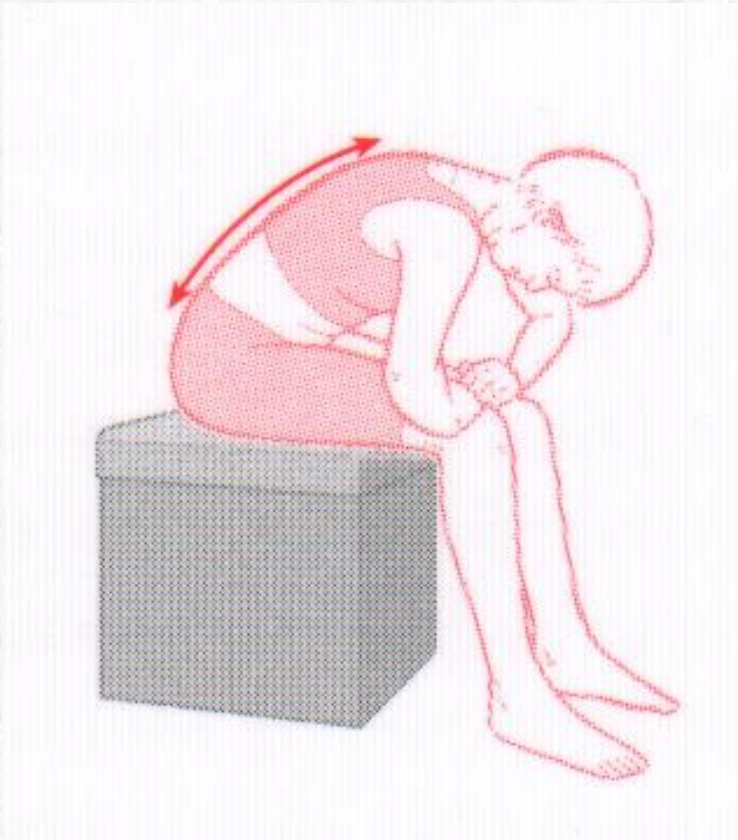
Deep Water Exercise



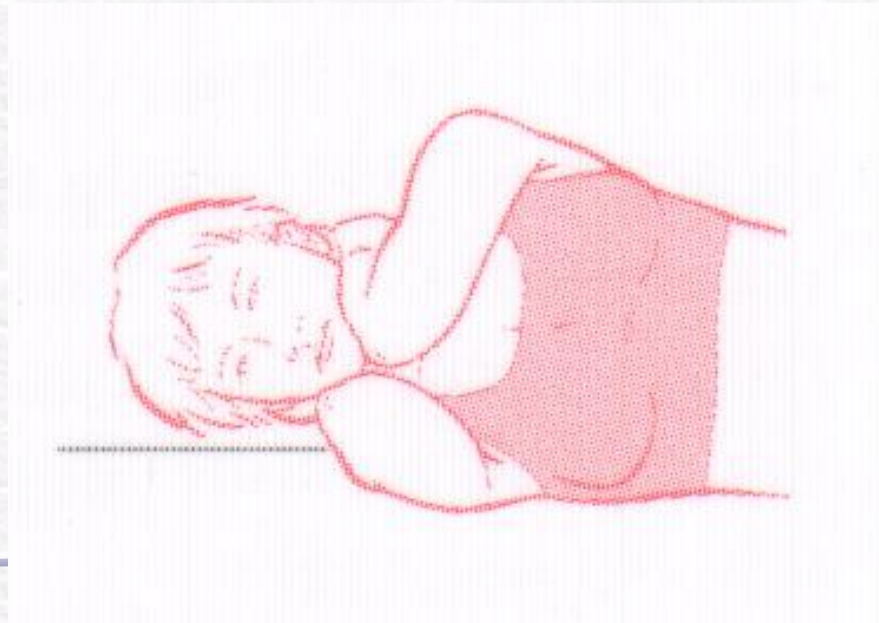
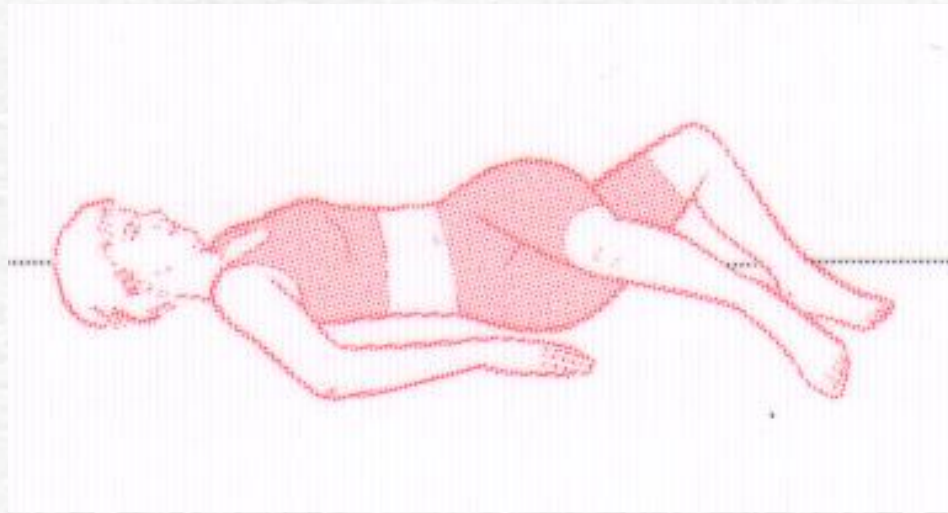


Self Mobilizing

Mobilizing Lower Back



Lower and Upper Spinal Twist



The page features decorative wavy lines in a light purple color at the top and bottom. The top section consists of several overlapping, curved lines that create a sense of movement. The bottom section is a single, solid, wavy line that spans the width of the page.

Back Care

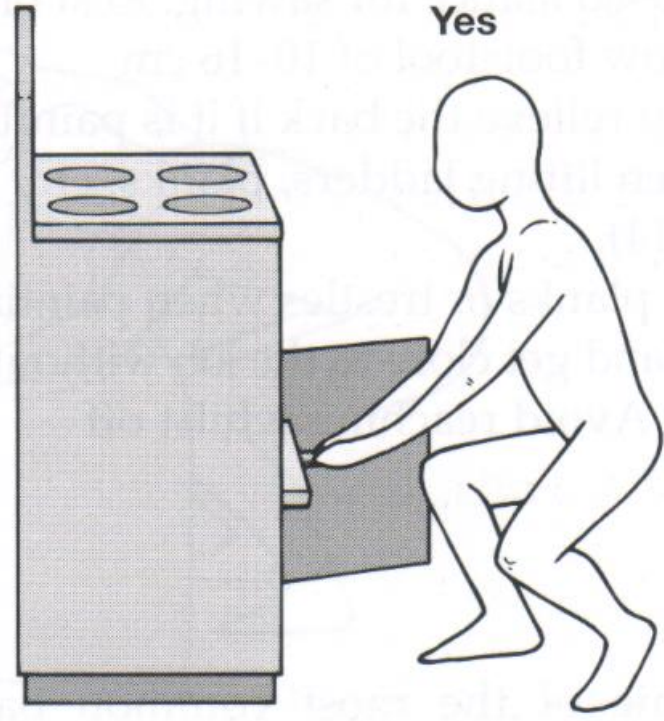
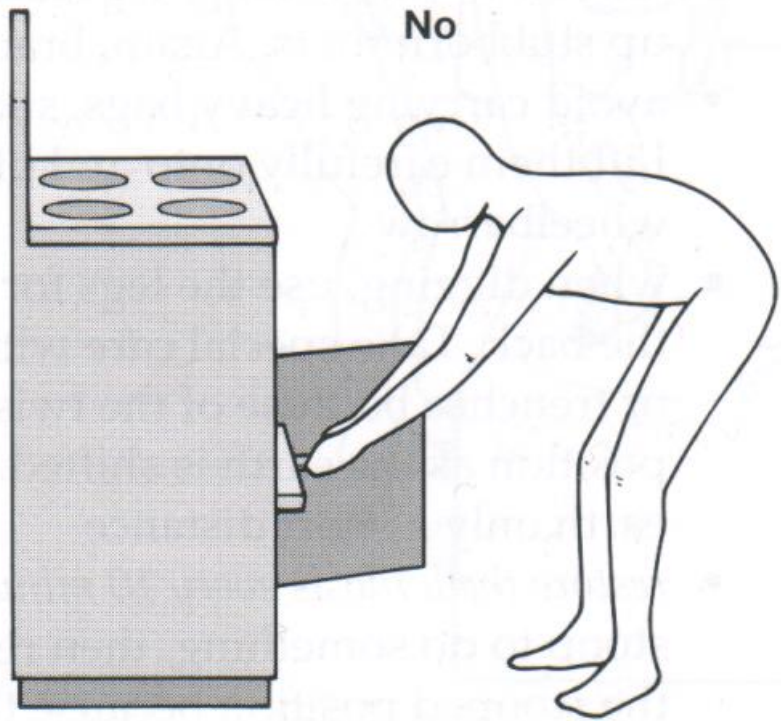
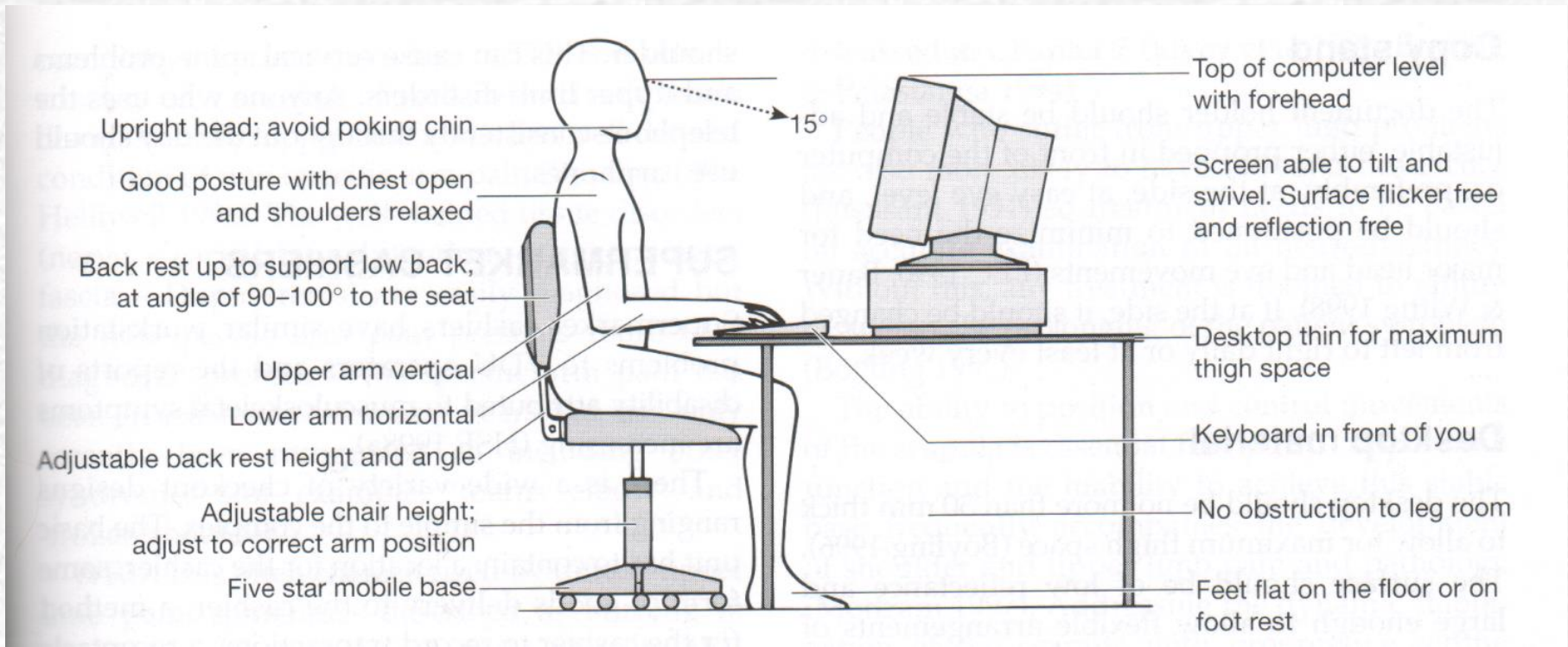


Figure 15.8 Reaching into low cupboards.



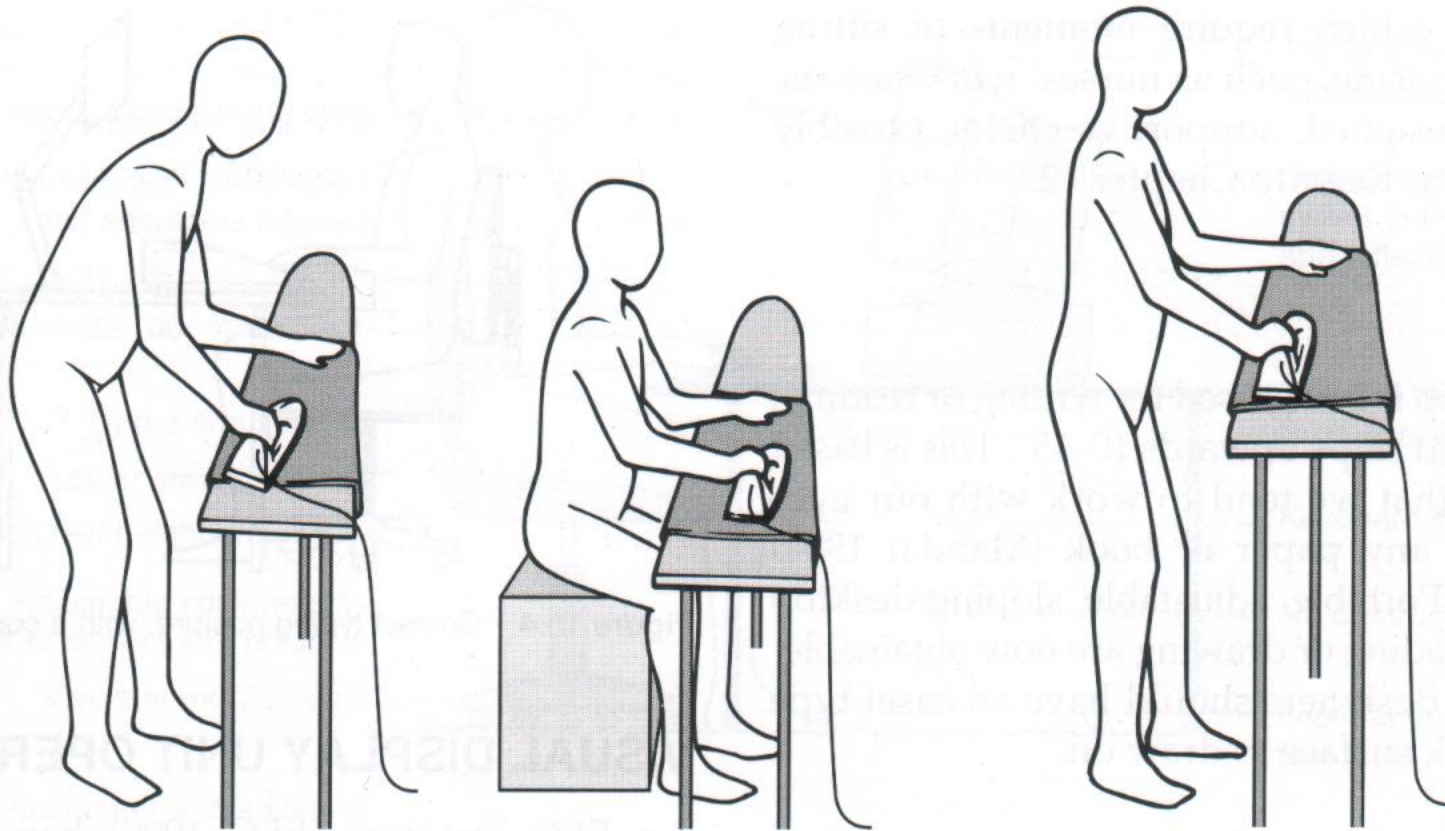


Figure 15.2 Worktop too low. Either lower yourself or raise the worktop.

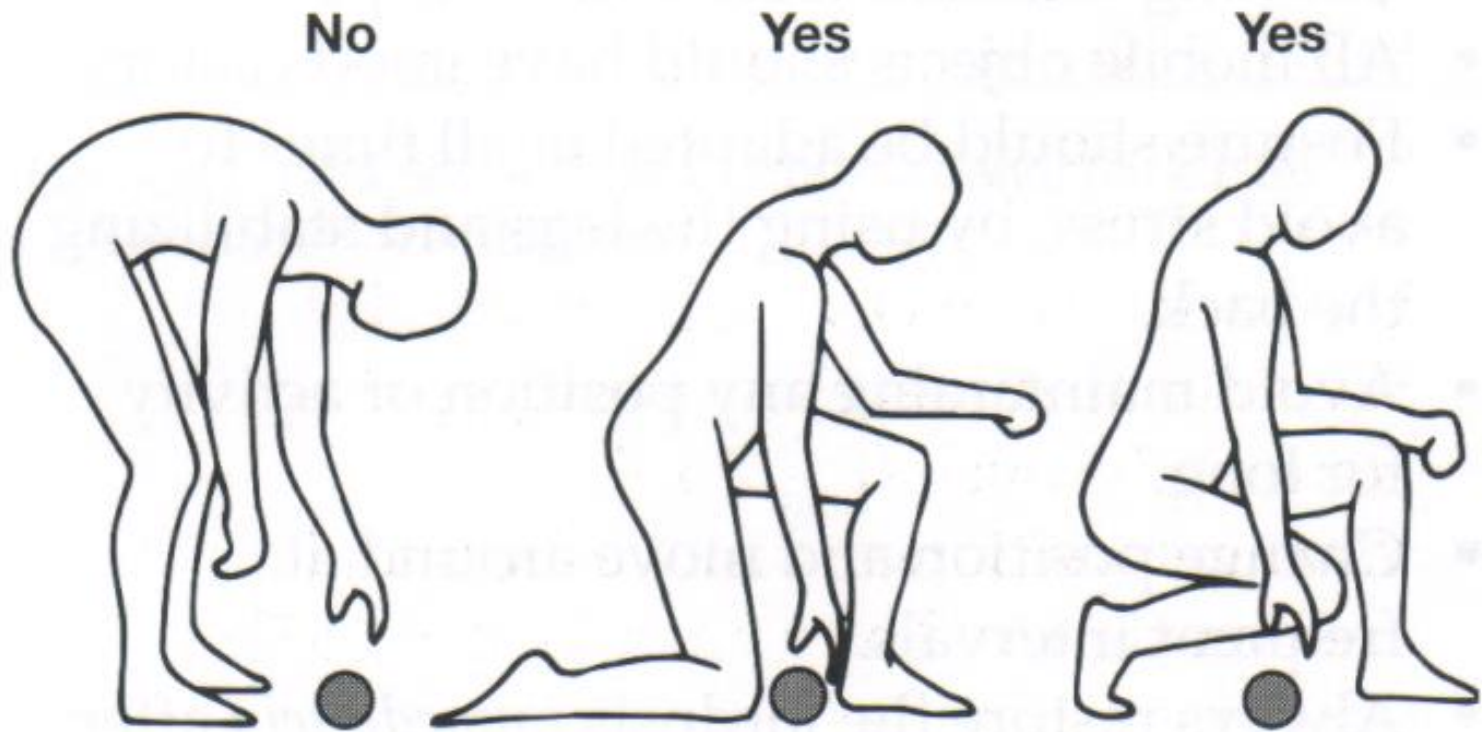


Figure 15.10 Picking up small objects.

no



yes

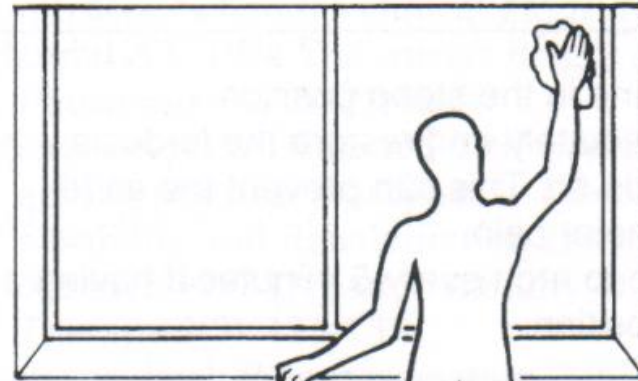


Figure 15.9 Reaching up.

no



yes



Figure 15.1 Correct worktop height.