

HOW to LIMIT & CORRECT COMMON BODY SHAPE DISTORTIONS & POSTURAL ASYMMETRIES by PROVIDING SUPPORT in LYING

Postural Deviations & Asymmetries to Look For ^{3, 4}

Pelvis & Lower Extremities

- Hip Abduction: Leg is away from body's midline
 - Both legs – knees falling apart, away from each other
- Hip Adduction: Leg is near or crossing body's midline
 - Both legs – knees falling together, toward each other
- Windswept Posture: Both knees fall together to the same side
 - One hip is turned outward, falling away from body & the other hip is turned inward, falling toward body's midline
- Pelvic Rotation: Pelvis is rotated so that one side is in front of the other
- Pelvic Obliquity: When the pelvis is higher on one side than the other
- Pelvic Tilt: Pelvis tilts forward or backward
 - Anterior tilt: exaggerated sway back
 - Posterior tilt: sit bones are tucked under, looks like sitting on tailbone

Spine

- Scoliosis
 - When looking directly at a person's back or front, the spine should be straight up and down
 - Scoliosis is when the spine curves from side to side
 - Typically, there will also be some spinal rotation
- Kyphosis
 - When looking at a person from the side, there should be a small, natural, backward curve in the upper back (thoracic spine)
 - Kyphosis is when this curve is exaggerated, bringing the head forward, sometimes called a hunchback posture
- Lordosis
 - When looking at a person from the side, there is a small, natural, forward curve in the low back region (lumbar spine)
 - Lordosis is when this curve is exaggerated, and is sometimes called sway-back
- Neck Rotation
 - Rotation of the neck happens when shaking one's head "no"
 - Some users get stuck with their chin more toward one shoulder than the center of their chest
- Head Tilt or Lateral Neck Flexion
 - This is when the neck bends to the side, bringing one's ear closer to the shoulder
 - When the neck is stuck here, this impacts one's line of vision

Ribcage

- Barrel chest
 - When chest is more narrow and deep than a typical shape
- Rib prominences
 - Seen when ribs stick out more on one side than the other (on the front, side or back body)

WHERE TO PLACE POSTURAL SUPPORTS

Goals ^{1, 2, 3}

- Alignment – as much as possible
 - Check by looking at the user from base of feet, from above, & by looking down from the head
- Distribute Pressure
 - Ensure that all parts of body have direct contact with the supporting surface
- Comfort of User
 - Beware of overcorrecting or over-stretching the user to achieve alignment, which would prevent ability to relax for rest/sleep

Placement of Postural Supports - Supine Lying (on back) ^{2, 4}

Check in with user's comfort after placing each support

1. Elevate the knees (for comfort)
 - a. Placing support beneath the knees relieves low-back strain
2. Align the pelvis
 - a. Always secure the pelvis first, align remaining body parts in relation to pelvis
 - b. Check for obliquity, rotation, and tilt
 - c. Place sturdy supports on both sides of pelvis
 - i. These supports should be placed between the two non-slip layers, under the sheet
 - d. Adjust pelvis position – gently tug on sheet to shift pelvis into alignment as needed
3. Align the torso (spine & ribcage)
 - a. Observe the sternum and shoulders for any rotation or asymmetry
 - b. Place sturdy supports along both sides of torso
 - i. These supports should be placed between the two non-slip layers, under the sheet
 - c. Align torso (spine/ribcage) by gently tugging on the sheet
4. Align and support neck & head
 - a. If the user typically likes to rest/sleep with a pillow, then use one under the head/neck
 - b. Align the head (prevent neck rotation/flexion) by placing small support under pillow
 - i. Adding a support to either side of head can cradle the head to secure its position
 - c. A small support can be placed under the neck to accommodate for natural cervical curve
5. Align the legs
 - a. Should be aligned in relation to the pelvis, with knees separated by a support to prevent adduction and pressure on bony prominences
 - b. Legs should also be supported laterally to prevent excessive hip abduction
 - i. Slight abduction is ideal to reduce hip dislocation risk
6. Floating heels
 - a. Place a support under the toes (ball of foot), to limit foot drop
 - b. Adding supports under calves can avoid pressure on heels
7. Support the arms
 - a. Arms are typically more comfortable with pillows below them on either side of the torso

Placement of Postural Supports – Side Lying ^{1,3}

Check in with user's comfort after placing each support

1. Support between the legs
 - a. The support should separate legs so that they are parallel to each other
 - b. Protect the bony prominences of knees, ankles, & feet
 - c. Align legs in relation to pelvis to limit adduction
2. Stabilize & secure the pelvis
 - a. Pelvis should be upright, not rotating forward/backward
 - b. Place a sturdy/firm support behind the pelvis (between two non-slip layers)
3. Stabilize the back
 - a. Use a support that is firm and tall enough for the user's back
 - b. Place against the back (between the two non-slip layers)
 - c. The user can lean their back against this support, so make sure it is sturdy
 - d. This allows some pressure to be relieved from the bottom shoulder
4. Support the top arm
 - a. Place a large, comfortable support in front of the user's chest, under their top arm
 - b. This support helps align the shoulder girdle and collarbone, preventing the top shoulder from rolling forward
5. Support the head & neck
 - a. Flexing the neck forward in side-lying feeds into a kyphotic posture
 - b. Ensure the head is aligned and upright
 - c. Fill in the gap between the user's shoulder and head with an appropriately sized pillow
 - d. Additional support beneath the neck may be needed to accommodate the neck's contour

Limiting rotation in side-lying is crucial to protecting body symmetry from the influence of gravity and time.

REFERENCES

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