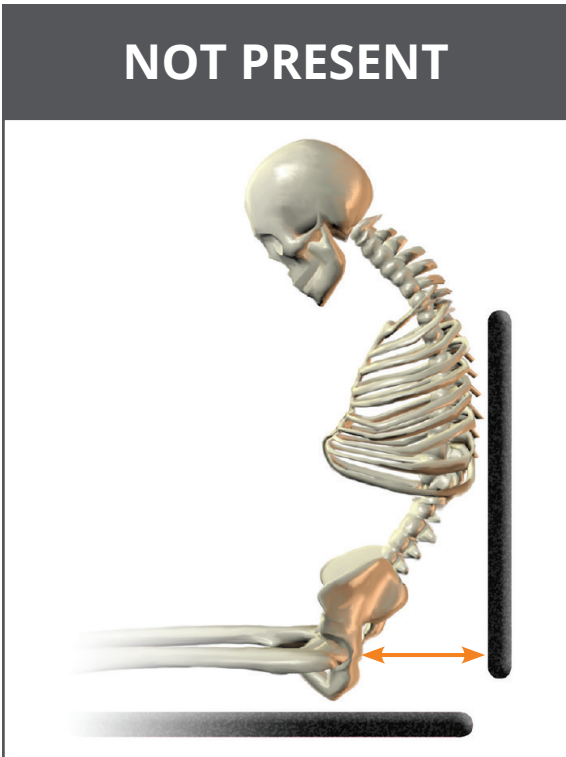


SEATING SHAPES

ASSESSMENT GOALS

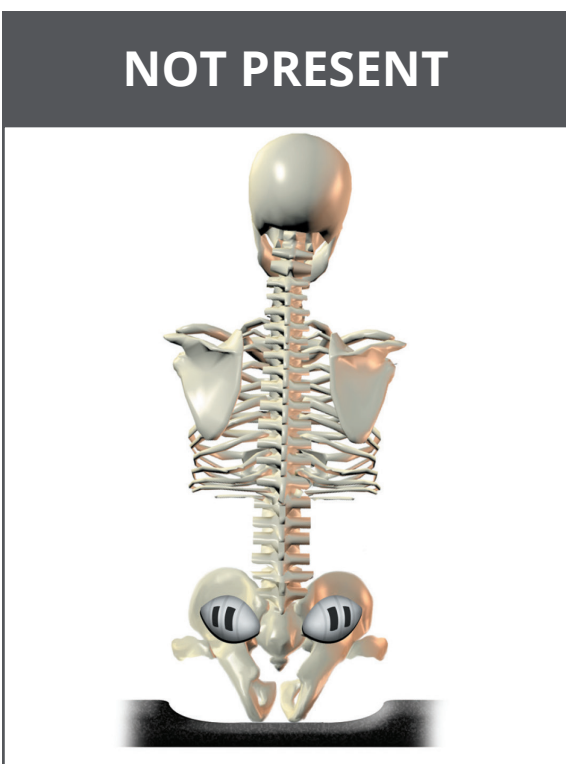
Pelvis and Spine

- ✓ Posterior pelvic stability
- ✓ Posterior-lateral pelvic stability
- ✓ Lumbar support
- ✓ Posterior thoracic stability
- ✓ Lateral thoracic stability



POSTERIOR SACRAL SUPPORT NOT PRESENT

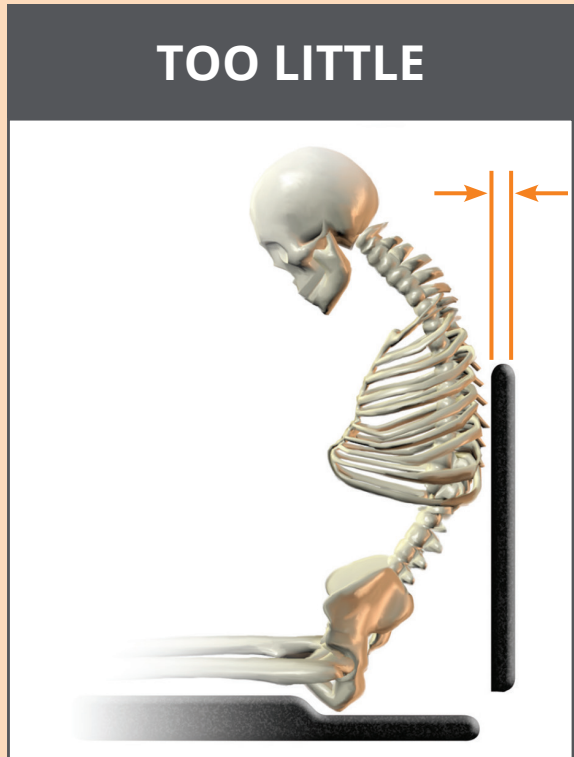
- Pelvis will collapse into a posterior pelvic tilt
- Flattening of the lumbar spine
- Increase in thoracic spine kyphosis
- Hips sliding forward



POSTERIOR-LATERAL SACRAL SUPPORT NOT PRESENT

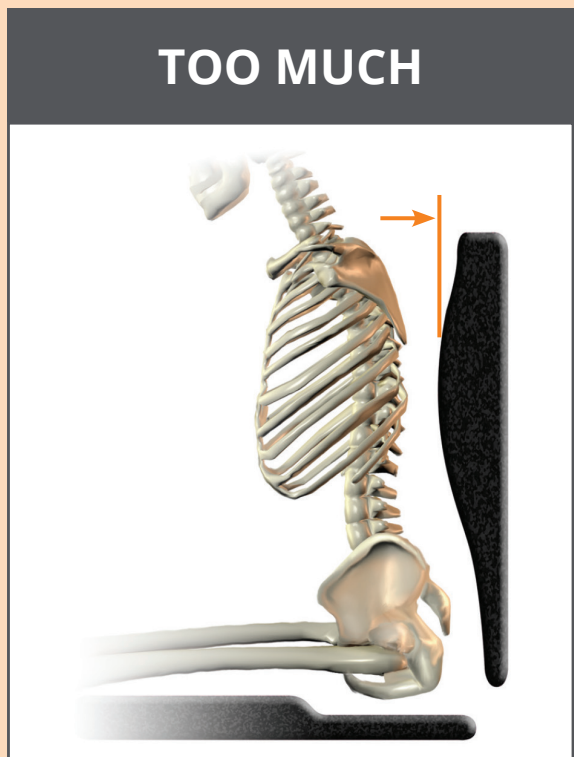
- Pelvis and spine may become asymmetrical
- Pelvis may collapse into a posterior tilt and rotated position
- Flattening of the lumbar spine
- Hips may slide forward
- Pelvis may shift laterally
- Pelvis may become oblique, spine may become laterally flexed

POSTERIOR THORACIC SUPPORT (SHAPE)



Too Little

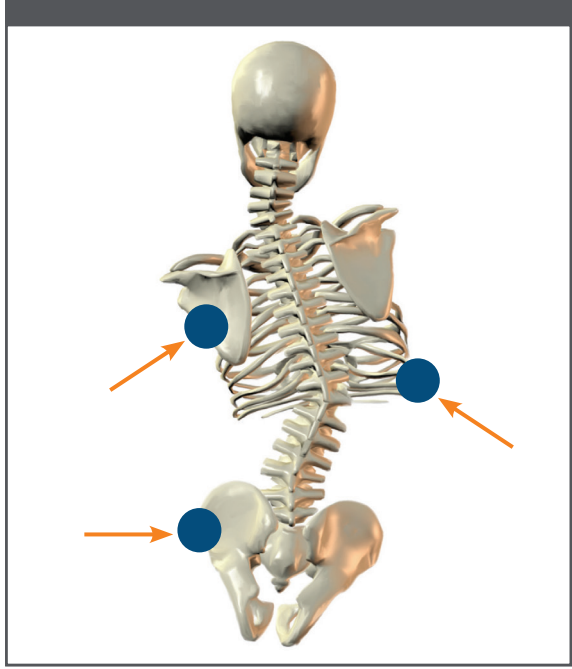
- May cause inadequate accommodation of thoracic spine creating forward or lateral collapse of trunk
- May cause poor head position/control
- In absence of correct shape may push pelvis and/or trunk forward



Too Much

- May inhibit function
- May encourage a collapsed trunk posture
- This can be common with bariatric clients

THREE POINT CONTROL



TOO LOW



LATERAL THORACIC SUPPORT

Vertical Placement Range

- Location must support the ribcage
- Provide three points of control

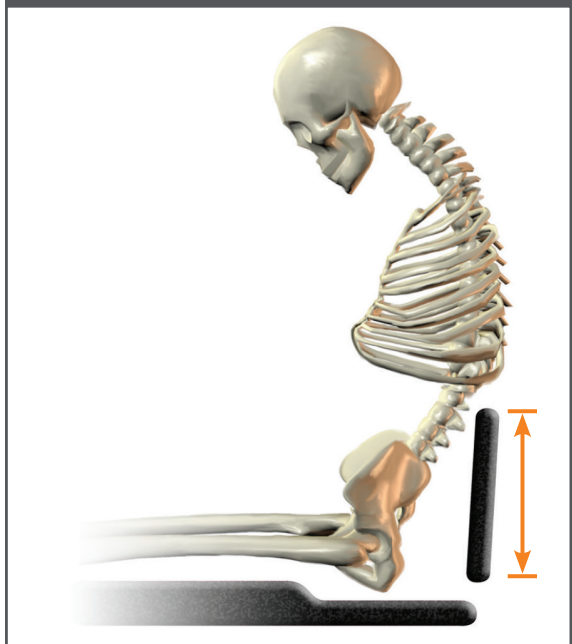
Too Low/Too Shallow

- Thoracic spine may not be supported
- May lead to collapse of trunk and poor trunk control
- May cause skin irritation

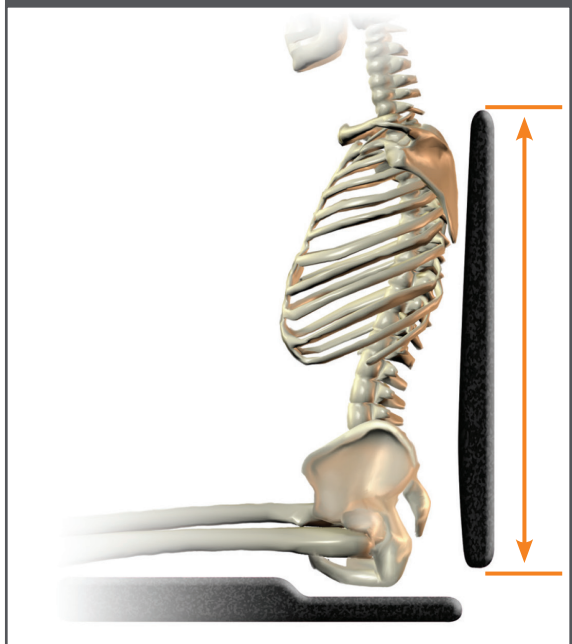
Too Deep

- May interfere with upper extremity function and/or cause injury

TOO LOW



TOO HIGH



THORACIC SUPPORT (HEIGHT)

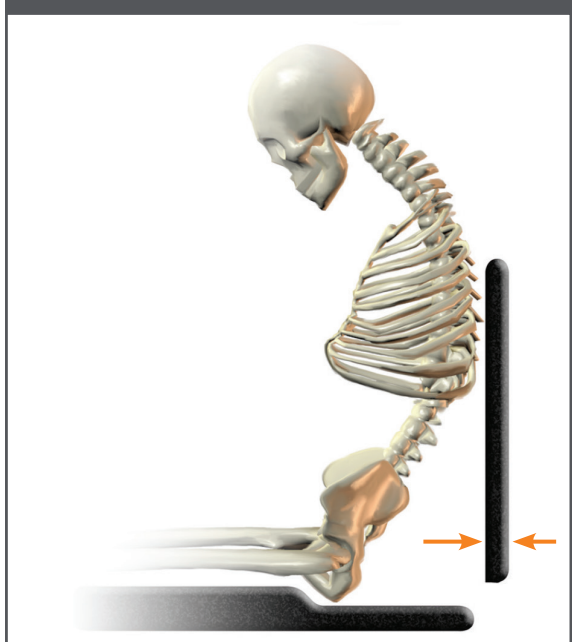
Too Low

- Thoracic and/or lumbar spine may not be supported
- May lead to collapse of trunk and poor trunk control

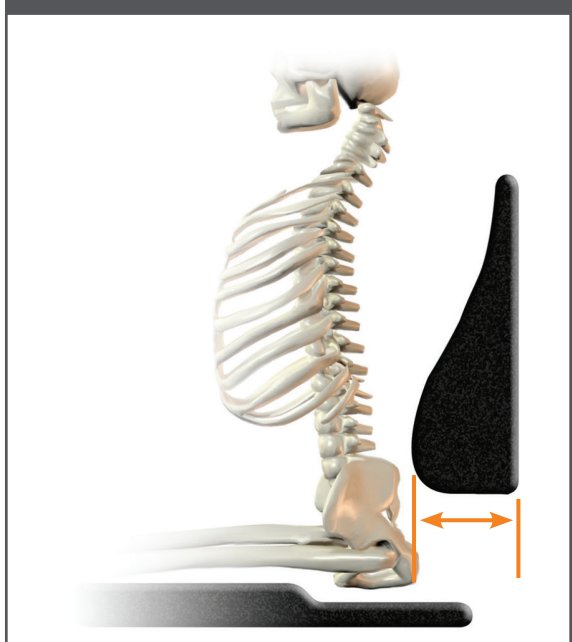
Too High

- Upper extremity function may be compromised
- May cause instability or discomfort
- May cause sliding away from backrest
- May cause increased pressure on scapula and thoracic area

TOO LITTLE



TOO MUCH



LUMBAR SUPPORT (SHAPE)

Too Little

- In the absence of posterior pelvic support contour, the lumbar area may collapse
- May cause posterior pelvic tilt
- May cause sliding of pelvis forward

Too Much

- Pelvis may rotate posteriorly or anteriorly
- Trunk can fall forward
- Extensor muscles may compensate for leaning forward and inhibit function

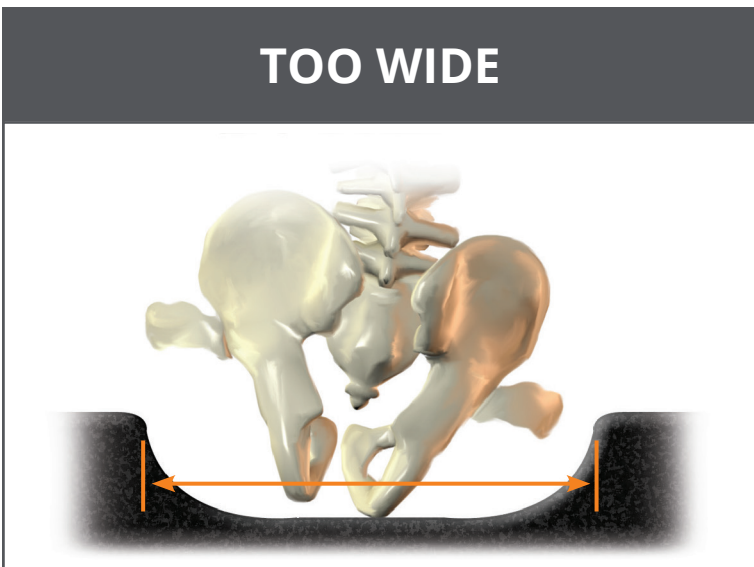
ASSESSMENT GOALS

Pelvis and Lower Extremities

- ✓ Assess hip flexion Range of Motion (ROM)
- ✓ Assess hamstring length
- ✓ Provide lateral stability
- ✓ Provide anterior stability
- ✓ Maximize surface contact area

PELVIC CONTOUR WIDTH

Consider protecting the trochanters via offloading or immersion/envelopment.



Too Wide

- Trochanters not supported may cause:
- Lateral instability and/or pelvic obliquity
- Ischial Tuberosities (ITs) can bottom out
- This may be common in pediatric patients

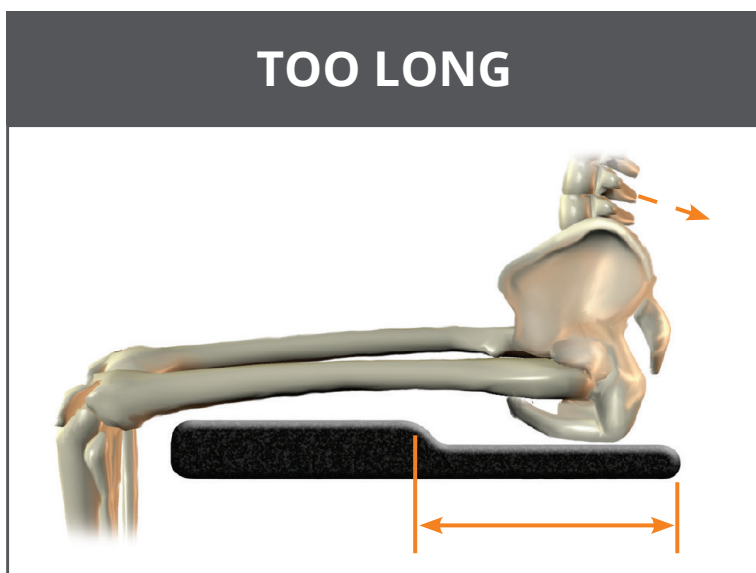


Too Narrow

- This can be common with clients who are bariatric
- Creates a pelvic obliquity
- Increases pressure on greater trochanters

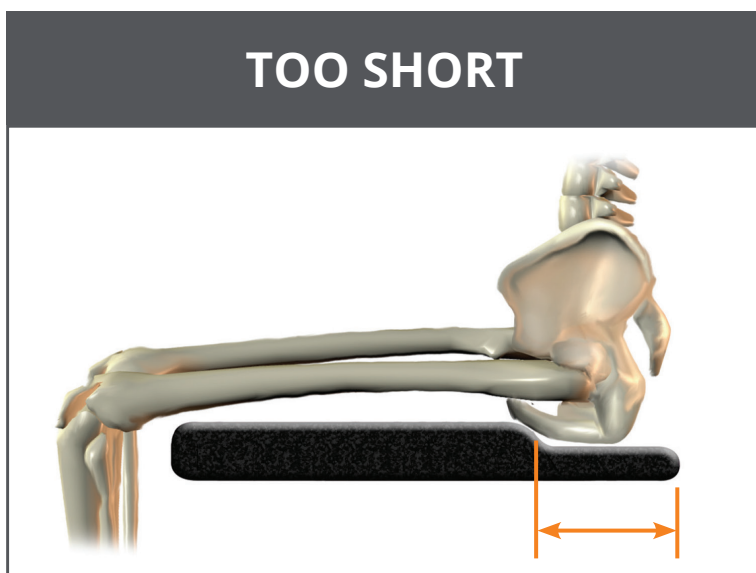
PELVIC CONTOUR LENGTH

Buttocks should be supported while loading femurs for stability. Ischial Tuberosities (ITs) need to be protected during activity.



Too Long

- ITs can slide forward into posterior pelvic tilt which can lead to additional loading on coccyx
- Possible inadequate femoral loading
- May cause increased shear force at ITs

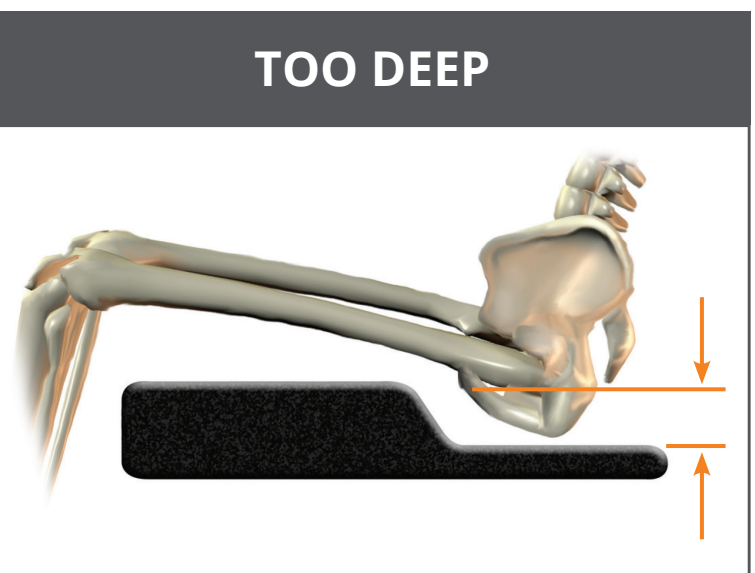


Too Short

- Results in insufficient space for IT movement for functional activity
- ITs may press into anterior shelf of cushion causing potential skin integrity issues

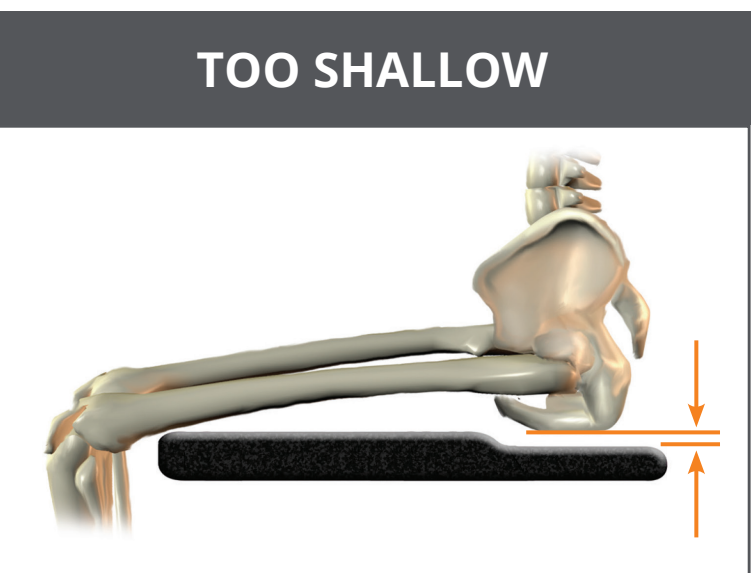
PELVIC CONTOUR DEPTH

The buttocks should be supported while maintaining optimal hip angle. Correct height depends on difference in height between ischials and posterior aspect of femur.



Too Deep

- May cause interference with hip angle
- May increase or decrease hip flexion angle, depending on hip ROM and amount of support at posterior pelvis
- The pelvis may not be optimally loaded which can lead to additional loading at coccyx

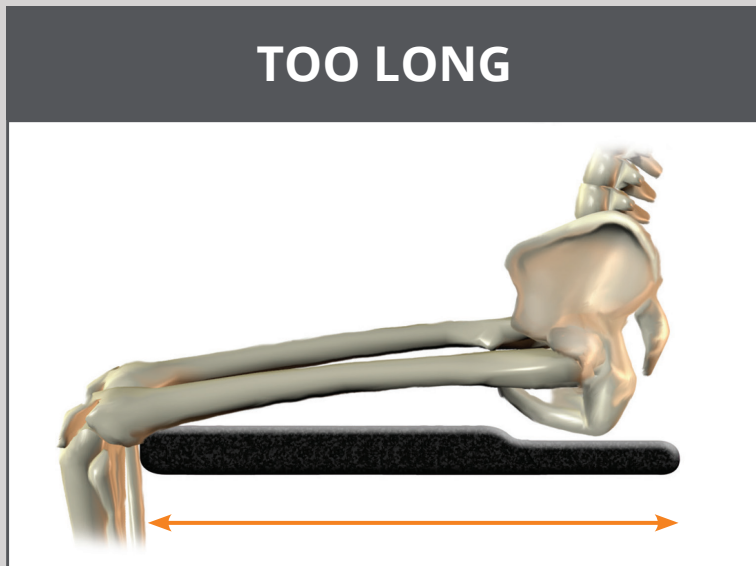


Too Shallow

- Femurs will not be loaded
- May not prevent sliding
- May not provide optimal pressure reduction at the ischials

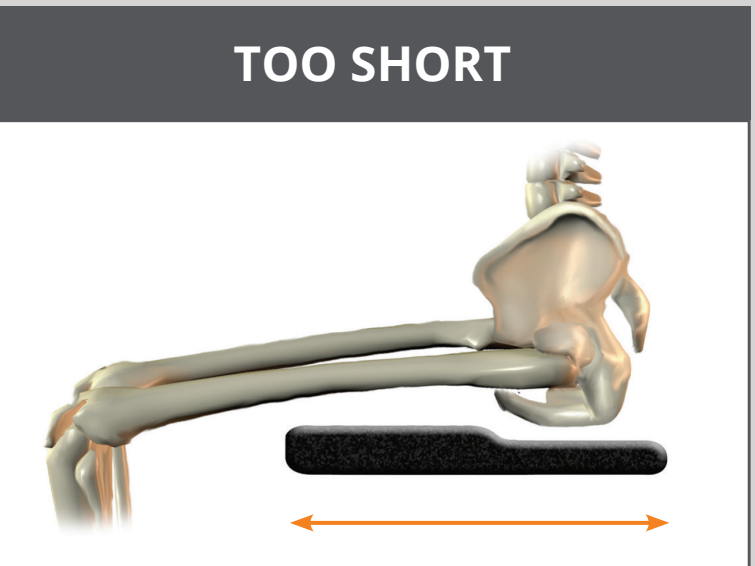
FEMORAL SUPPORT LENGTH

Femoral loading stabilizes the pelvis, positions the lower extremities, and redistributes pressure.



Too Long

- Pulls the hips forward in the seat which may cause sliding
- Inhibits function
- Increases pressure behind knees



Too Short

- Not enough surface contact area for loading
- Ischials may have increased pressure
- Lower extremities may not be optimally positioned