Seating & Wheelchair Angles

**THIGH TO TRUNK ANGLE**

**Seat-to-Back Support Angle**

**Assessment Goals**
During the range of hip flexion, with the spine in its optimal alignment, the assessment identifies the point at which hip range of motion (ROM) is exceeded and pelvis rotates rearward.

**Technical Considerations**
Consider altering the seat-to-back support angle to accommodate client’s hip ROM.

**GREATER THAN 90°**
- Pelvis may rotate rearward, trunk becomes kyphotic and hips can slide forward.
- Body mass behind the center of gravity - client has greater probability of sliding.
- Extensor tonal patterns may be triggered.

**LESS THAN 90°**
- If seat to back support angle is less than flexion can tolerate, the pelvis may rotate rearward and client may slide forward or pelvis may anteriorly rotate creating trunk instability.

**ORIENTATION**

**Assessment Goals**
Orientate the client and seating/mobility system in a position relative to gravity, providing optimal functionality and ability to stay upright in the system.

**Technical Considerations**
Consider mobility base selection - Seat frame angle adjustability - Overall length of frame - Seat-to-floor height - Ability to interface with seating - Vertical
- Client may be unable to hold head/trunk upright against gravity.
- Position may require excessive muscle activity.
- Up to 25 degrees of posterior tilt may offer postural stability.
- 45-55 degrees of posterior tilt required for pressure distribution.

**Tilted**
- Client may pull forward - away from the back support.
- Visual orientation may be negatively impacted.
- Consider safe swallow position.
- Consider effect on function.

**REFERENCES:**


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