

PELVIS TO THIGH

Seat to Back Angle

Assessment Goals

During the range of hip flexion, with the spine in its optimal alignment, the assessment identifies the point at which the hip stops flexing and the pelvis starts rotating rearward.

Technical considerations

Seat to back angle.

GREATER THAN 90°



- Pelvis rotates rearward, trunk becomes kyphotic and hips slide/shift forward
- Body mass behind center of gravity - client slides out
- Extensor tonal patterns may be triggered

LESS THAN 90°



- If angle is less than hip flexion can tolerate - pelvis rotates rearward and hips slide forward or pelvis rotates anterior and trunk becomes unstable

THIGH TO LOWER LEG

Lower Leg Assembly Angle

Assessment Goals

With the pelvis in its optimal position and thighs loaded, maintain lower leg in best position for loading the foot while respecting hamstring range relative to seating.

Technical Considerations

Lower leg assembly angle. (Hanger Angle, calf pad or footplate placement)

- **(Greater than 90°)** If the angle is greater than hamstring range can tolerate with the pelvis and hips in optimal alignment hamstring will pull the pelvis forward, pelvis will rotate rearward and client slides.)
- Ability to load feet
- Maneuverability issues

GREATER THAN 90°



- **(Less than 90°)** If greater than quadriceps range can tolerate - pelvis may be pulled into an anterior tilted position with compensating trunk hyperextension and imbalance
- Ability to load feet
- Seat support and casters interference

LESS THAN 90°



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

Mobility base choice:

- Seat frame angle adjustability
- Seat to floor height
- Overall Length of frame
- Ability to interface with seating

VERTICAL



- Unable to hold head and trunk upright against gravity even with correct angles, shapes and supports
- 5°-25° of orientation - tilt may be necessary for postural stability with out compromising function and visual orientation
- 45°-60° orientation for pressure re-distribution

TILTED



- Client may pull forward - away from the back support
- Visual orientation may be negatively impacted
- Function may be compromised



LOWER LEG TO FOOT

Footplate Angle

Assessment Goals

With the pelvis, thighs and lower leg in optimal alignment, maintain foot in its best position for loading as close to neutral as is possible.

Technical considerations

Footplate angle.

GREATER THAN 90°



(Greater than 90°)

- Foot loading and stability
- Seat to floor height
- Tonal Patterns

LESS THAN 90°



(Less than 90°)

- Achilles tendon may be overstretched
- Foot loading and stability