

PRE AND POST-FITTING FUNCTIONAL EVALUATIONS

Pre-Fitting Functional Evaluations

A pre-fitting assessment should be done and documented with a team consisting of at least a physical therapist and the orthotist. It is also desirable to have the primary caregiver present during this assessment. Each person brings to the evaluation their own areas of expertise and observational skills. Don't be surprised if the primary caregiver sees more than the rest of the medical team! Their observations and comments can be surprisingly insightful.

The assessments should be oriented toward assessing the hip stability/displacement and overall function as opposed to individual components of function. Carefully observe function or limitations of the adductors, hamstring, and hip flexors. Be aware of and document symmetries found during the evaluation. Some facilities are using videotape as one of the ways to document the before and after effects of the SWASH®. Clinically proven assessment methods such as Gross Motor Function Measure (GMFM), or the Peabody Developmental Motor Scales (PDMS), among other tests will add validity and proven repeatability to the assessment process.

Below is a guide of areas to assess posture and function PRIOR to SWASH® fitting:

SITTING (90/90 position)

- Overall sitting height from sitting surface
- Time no touch sitting
- Reaching distance capacity
- Ball catch capacity
- Sit to stand functional performance
- General stability and posture
- Hip adduction
- Pelvic tilt posture due to hamstring tightness

STANDING

- Overall stance height
- Foot position and alignment
- Reaching capacity with extrinsic support
- Reaching capacity without extrinsic support
- Stand to squat functional performance
- General posture
- Femoral alignment

WALKING

- (with normal ambulatory aid and with normal AFOs if used)
- Incidence of scissoring and scissoring posture
 - Transverse plane alignment both sides (one limb rotated more than the other?)
 - Stride length
 - Stride base width
 - Heel to toe utilization during gait
 - Speed
 - Distance capacity

Primary & Secondary Goals

Based on above assessment, establish primary and secondary goals for the orthotic intervention. For example: Hip alignment? Stretch adductors? Increase walking capacity? Improve sitting posture? Appropriate product selection (Classic or Low Profile, 115° or 123° uprights) and proper fit are highly dependent on knowing these goals.

Post-Fitting Functional Evaluations

During this process, simply repeat the evaluations accomplished in the pre-fitting evaluation. Note any changes in functional capacity that are measured or observed.

Please consider the following:

Age

The younger wearer typically adapts to the orthosis and shows more immediate improvements than the older wearer.

Acclimatization Time

While some differences are usually apparent immediately after fitting, many more changes will become apparent after days, weeks, or months in the SWASH®. It may take some time for the wearer to acclimatize to and to trust the orthosis. Many children will demonstrate a more erect and stable standing posture. It may take some time to become acclimatized to this new posture and elevation. Cervical hyperextension and spinal rotation should diminish as pelvic stability increases. Improvements in standing balance and stability may be demonstrated after a few hours or days.

Walker, Standing Frame, Crutch Adjustment

Be certain that the height of any standing or walking assistance device is evaluated with the child wearing the SWASH®. It will often need to be raised to accommodate to the new stance height of the child.

Abduction Adjustment

In initially setting up the orthosis, it is difficult to judge the amount of abduction required to provide optimum hip stability and achieve established goals. If ambulatory and scissoring is still hindering gait, abduction angles will need to be re-adjusted by the fitter.