

SOME SPECIFIC CLINICAL CONSIDERATIONS TO PROVIDE GUIDANCE FOR OPTIMAL BACK SUPPORT SELECTION ARE INCLUDED IN THIS DOCUMENT, AS WELL AS RESOURCES FOR MORE DETAILED ASSESSMENTS AND GUIDELINES.

A thorough evaluation is key in selecting an optimal wheelchair and seating system. The assessment can guide important decisions by focusing on appropriate measurements and clinical findings. This allows for optimal postural alignment, adequate pressure relief, functional mobility and comfort. Utilizing a reliable seating assessment tool can ensure that the selected equipment will truly match the person's function, needs, and goals.

#### AN EXAMPLE OF A WIDELY RECOGNIZED SEATING ASSESSMENT TOOL:

##### [NRRTS, Wheelchair and Seating Evaluation:](#)

Jill Sparacio, Jessica Pedersen, Mike Babinec, Julie Piriano (2004, 2007, 2014, 2018, 2024)

Another important aspect of wheelchair and seating assessment includes correct measurements. It is necessary to understand what is being measured and how to translate the measurements into selecting an optimal wheelchair and seating equipment. Correct measurements will help facilitate the best outcomes for your client and ensure they receive an individually configured wheelchair that will perform at its highest level. Standardization of measurements ensures accuracy for all involved in the assessment process.

The following resource provides reliable guidelines for standardization of measurements: [A Clinical Application Guide to Standardized Wheelchair Seating Measures of the Body and Seating Support Surfaces,](#) Kelly Waugh, Barbara Crane, August 2013

## WHY SOLID BACK SUPPORTS VS. UPHOLSTERY OR TENSION ADJUSTABLE?

	ADVANTAGES	DISADVANTAGES
SOLID	<ul style="list-style-type: none"> <li>• Improved posterior support of pelvis and trunk</li> <li>• Trunk stability facilitates UE function</li> </ul>	<ul style="list-style-type: none"> <li>• When paired with a folding frame, requires more technical education of client/caregiver installation/removal training</li> </ul>
UPHOLSTERY	<ul style="list-style-type: none"> <li>• Easy to fold with folding frame style wheelchair; no additional technical training;</li> <li>• Tension adjustable can help facilitate with client comfort and postural needs temporarily</li> </ul>	<ul style="list-style-type: none"> <li>• Flexible material and wears over time</li> <li>• Conforms to client's back</li> <li>• Promotes kyphotic posture and posterior pelvic tilt</li> <li>• Promotes long-term postural deformities</li> <li>• Tension adjustable straps required to maintain positioning</li> </ul>

## CORRECTABLE VS. NON-CORRECTABLE POSTURES

- No longer using terms fixed and flexible in justification.
  - Fixed implies intervention is not needed or it is fixed by hardware or surgical intervention, also that it cannot progressively worsen.
- Providers/Clinicians need to justify to payer sources that if we do not address this asymmetry with an intervention (seating), it can and will get worse overtime, ultimately needing more costly interventions.

**CORRECTABLE = REDUCIBLE | NON-CORRECTABLE = NON-REDUCIBLE**

- If a posture is correctable, we need to correct it with seating to maintain function.
- If a posture is non-correctable, we need to accommodate it with seating to maintain function/gain function.
- Without intervention of correction or accommodation, the client will not be functional or is at risk of developing a postural asymmetry/orthopedic issues.
- It is important to note that we do not use seating as a therapy, the goal of seating is to correct or accommodate the postural asymmetry in order to optimize function. Using the wheelchair should not be a workout!

## WHEN TO INTRODUCE AN EXTERNAL LATERAL VS. A CONTOUR BACK SUPPORT?

The goal when introducing either an external lateral or a contoured back support is to facilitate optimal positioning without negatively influencing function. Do not try to over position a client.

- Have they used external laterals in the past and it is working for them? Don't change it.
- Does your client need to remove laterals for transfers/reaching?
  - Will they be independent with this?
    - If not – maybe contoured back support would be better
- Do they have enough strength or trunk control/or do they need a caregiver to help them out of the contour for transfer?
- Are the laterals needed all the time? Only for transport?
  - 100% of the time a contoured support
  - Occasionally an external lateral
- External laterals allow you to provide unilateral support. Use with caution – want to ensure they can maintain midline without contoured support or as a part of 3 points of control.
- Newer client may try laterals first, especially if they are not ready to commit to a contoured back support.

## REFERENCES

<sup>1</sup>. Centers for Medicare and Medicaid Services (2025, April 1<sup>st</sup>). [Wheelchair seating – Policy Article](#)

<sup>2</sup>. Jessica Presperin Pedersen, Cynthia Smith, Margaret Dahlin, Molly Henry, Janell Jones, Kelly McKenzie, Mitch Sevigny & Lindsey Yingling (2020) Wheelchair backs that support the spinal curves: Assessing postural and functional changes, The Journal of Spinal Cord Medicine, DOI: 10.1080/10790268.2020.1760530

## CLINICAL JUSTIFICATION DOCUMENTS FOR NXT PRODUCT SOLUTIONS

## GENERAL COVERAGE CRITERIA

Different funding systems have distinctive requirements for justification, but utilizing clinical findings from a mat evaluation can guide the team to the best solutions. Client measurements and anatomical findings are necessary for matching clinical and functional need to a product. Understanding key product features including shell design, shape, contour/laterals and properties of support materials can lead to the most optimal equipment selection. The selection of optimally configured seating system and mobility base is a vital component of the 24-7 Postural Care Management with the goal to facilitate the most stable, functional and safe seated postural alignment based on the user's individual needs and goals.

### **Back Supports**

Solid back supports are chosen based on medical and functional necessity, to accommodate or correct postural asymmetry and to promote functional success for the wheelchair user. Specific models are selected to provide support for postural asymmetries, trunk weakness, and overall client comfort/tolerance for use.

### **Seat Cushions**

Seat cushions are selected based on medical and functional necessity, to provide a base of support and adequate pressure relief to bony prominences. Proper selection of a seat cushion can make the difference between functional independence and the need for assistance. Sitting tolerance is determined by many factors, including comfort and amount of support. Different models of off-the-shelf seat cushions can provide some support for mild postural asymmetries. Matching the client measurements to seat cushion dimensions and shapes as well as the selection of the desired material properties will ensure the best combination of positioning, pressure relief and functional base of support.

## PRODUCT PROPERTIES

Selecting the optimal back support and seat cushion should include clinical considerations to match the client's needs and goals to a specific product. Findings from the assessment should guide the decision process. Understanding the specific properties including support materials, shell, hardware, and overall weight of the system to match the mobility base is of utmost importance.

### **Support material**

The support material is the soft surface between the client and the back shell or the seat sling or seat pan. It is designed to support the seated posture, protect skin and bony prominences, provide comfort and maximize sitting tolerance. All NXT seating products have foam layers, including soft and medium density, most with smart GEL infused Visco foam which is the layer that directly touches the client.

## Shell

This is the solid part attached to the support material and provides firm support to facilitate optimal postural alignment and upright positioning. Shape, weight, material, adjustability, and attachment points are all important considerations for the most optimal seating for your client. All NXT back supports are available with an aluminum shell with variable sizes, weight and adjustability. Select NXT back supports are also available in carbon fiber. NXT head supports are available with an aluminum shell that can be contoured based the individual's needs.

## Hardware

Back supports require hardware to interface with the mobility base. The type of hardware and its adjustability can be important factors in the decision-making process. All NXT back supports require back canes on the mobility base. The adjustability of the standard Quick Fit hardware allows for precision in ideal positioning of the back support.

## Weight

While weight should not be the primary focus in the selection of a seating system, it is important to consider, especially when paired with an ultralight manual wheelchair base. Paying attention to the combined weight of the support surface, shell, and hardware can make a big difference in your selection, as it will influence the overall weight of the overall mobility system. NXT seating offers a broad range of solutions focused on minimizing the weight of each seating component to help maintain the lightest configuration of your final product.

## CANADIAN FUNDING

Provincial funding varies, please check out our [Funding Page](#) on the website.

## MEDICARE FUNDING

[Back Support Coverage \[E2620, E2621\]](#)

[Seat Cushion Coverage \[E2607, E2608\]](#)

[ICD-10 CODE LIST](#)