

# Nu Digest

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## Purpose and Process of a Clinical Seating Evaluation for a Complex Rehab Technology Device

By Susan Johnson Taylor, OTR/L

Audience: Intended for clinicians, wheelchair users and other interested parties with limited/basic knowledge of Assistive Technology.

The seating and mobility evaluation is one of the most critical aspects of ensuring the medical necessity and appropriateness of a CRT device for a client.

The goals of the seating evaluation can include: decreasing effects of abnormal tone/reflexes/movement disorders, providing forces to correct or accommodate postural tendencies and abnormalities, accommodate sensory impairments, improve functional/ADL skills, improve comfort/sitting tolerance and improve self-image. Inappropriately applied seating can lead to significant posture and comfort issues and possibly result in more serious health conditions such as pressure ulcers, digestive issues, breathing trouble, and in some cases even further postural deformity.

A proper evaluation should be conducted by a clinical team which includes an OT or PT as well as a supplier who is a certified Assistive Technology Professional (ATP). The ATP certification recognizes those who have reached an internationally accepted standard of knowledge in assistive technology and who demonstrate a commitment to provide only the highest ethical standards of practice.

The clinical evaluation begins with consideration of

client and family goals, medical and surgical history as well as other subjective information collected in a conversation regarding the client's specific situation and needs.

The physical assessment consists of a mat evaluation, testing of functional and ADL skills, and use of trial equipment when appropriate to evaluate how different technology can best aid the client. The mat evaluation is performed out of the wheelchair. The clinical team must have hands and eyes on the client to assess tone, movement disorders, and any limitations in joint and spinal movement. Feeling the tone and limitations allow the team to understand the degree of support necessary.

In addition, they need to assess the ability of the client to balance and look at the shapes created by the client's body. When necessary, the team needs to understand where the client has or has had pressure injuries. All of this physical information assists them in deciding on seating supports, and how those supports should be oriented in the wheelchair base.

In addition to the subjective evaluation, there is an objective element to the evaluation in which the ATP takes both linear and angular measurements for the purpose of designing a customized wheelchair and

seating system that meet the medical necessity of that specific client. This includes linear measures like trunk and thigh depth, hip and knee width and elbow and lower leg height, in addition to many other similar measurements. It also includes more complex measurements like thigh to trunk angle and thigh to lower leg angle.

Applying the results of the evaluation to the complexity of the typical CRT client is the principle difference between applying Complex Rehab Technology equipment and standard durable medical equipment. The in depth nature of the evaluation allows the team to determine an optimal level of support necessary to fit the technology to the patient.

If the body has a position that is optimal for that individual client and is supported for stability by technology, then the client is able to participate in the ADL's that are important to them. The clinical seating and mobility evaluation is the first step to ensuring the path to optimized product selection that best accommodates the client.



#### **About the Author**

*Susan Johnson Taylor, OTR/L is an occupational therapist who has been practicing in the field of seating and wheeled mobility for 35 years, primarily at the Rehabilitation Institute of Chicago. Susan has published and presented nationally and internationally, has consulted on product development for manufacturers, and has actively participated in a variety of research studies at the Northwestern Sensory Motor Performance Program. Susan is both a member and fellow with RESNA, and in the past has served on the Board of Directors. She is a member of the RESNA /ANSI Wheelchair Standards Committee and the Clinician's Task Force. Susan joined the Numotion clinical education team in 2015 as the Manager of Training and Education.*