SELECTING WHEELCHAIR BACK SUPPORTS FOR POSITIONING AND FUNCTION

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The back support plays an important role in seating by supporting the spine and pelvis in the sagittal plane and restoring proper position of the pelvis. By doing so, it provides trunk stability, assists with pressure distribution and increases sitting comfort. This presentation will cover important clinical and product considerations in choosing and setting up a back support for proper fit and to enhance function.

Wheelchair seating can be challenging because anatomically, humans are not designed to sit all of the time. In sitting humans have a larger base of support than in standing but the pelvis and trunk are not as stable due to the open pack position of the hip joint and lack ligamentous tension. The pelvis and trunk have relationship where they move the opposite direction of each other and seating must balance both of them.

During this session we will discuss various clinic considerations when choosing a back support and setting it up on the chair such as the trunk to thigh angle and limited hip ROM. Our industry is moving towards more evidence based practice but literature searches reveal very little research about the benefits of using a back support on a wheelchair. I have found a few interesting published research articles to review looking at the use of a back support with wheelchair configuration and postural alignment and with lumbar support with flexible spinal deformity and pressure ulcers.

Transportation safety can impact the choice of a back support if the wheelchair is going to be used while riding in a motor vehicle. What does it mean if a back support is “crash tested”? Industry Standards that apply to crash testing of aftermarket wheelchair products will be discussed so that the attendee understands the process and what it means to their selection of a back support.

References


Speaker Bio

Susan Cwiertnia is a Physical Therapist who is employed by VARILITE as their Clinical Education Specialist. She also volunteers on the ANSI/RESNA standards and ISO WG 11.