



Benefits of Therapeutic Wheelchair Seating



Not all wheelchairs are created equal, and different people need different kinds of wheelchairs. Many people think of wheelchairs as the basic, folding type wheelchair which is commonly seen in hospitals, public places like airports, and is frequently provided at wheelchair distributions in developing countries. Wheelchairs built of materials like plastic lawn chairs are even less expensive than folding chairs, and are being provided through mission groups in some countries. One has to wonder how long the lawn chairs and other components will last before they break. If they last, these chairs and folding wheelchairs may help individuals of adult size who have reasonable upper body use, sitting balance, and sensation in their lower bodies but are unable to walk. Many of these people once walked, but amputations or other medical conditions now prevent them from walking. But they will not help everyone.

“One size fits all” wheelchairs are inadequate and may even cause more problems for individuals with severe needs, especially children born with motor disabilities. For children in particular, a properly sized wheelchair with postural supports that can be adjusted as the child grows is more than just mobility. It is a therapeutic tool that can help a child develop motor control, increased tolerance for sitting, and improved functional use of the hands. It can assist a child’s eating, digestion and breathing. Proper seating and positioning can limit or prevent orthopedic deformities and pressure sores that result in loss of function, hospitalizations, surgeries and even death. Brief overviews of some benefits of therapeutic wheelchair seating follow.

- **Support to limit or prevent deformity** – Children born with motor disabilities frequently have tight or loose muscle tone, in varying combinations. These involve more than just strength or weakness and are beyond the child’s control. Muscle tone problems and other factors can cause children to be “stuck” in a narrow range of positions that limit their ability to move. If children spend too long a time in the same position, permanent skeletal deformities can develop over time. Intervening early with very young children can limit or prevent these problems. A therapeutic seating system gives supports to help a child sit, guiding the body into orthopedic alignment during the growing years. Conversely, sitting slumped in an ill-fitting wheelchair can cause deformities that may become irreversible.
- **Increase in sitting tolerance** – Sitting up is beneficial for breathing, eating and digesting, communicating and social interaction. A person who is sitting is often perceived and treated differently and more positively than one who can only lie on the floor or bed. A child (or adult) who is unable to sit up alone may tolerate sitting in a wheelchair that provides special support at the hips, trunk, upper body and head. Nearly everyone, no matter how limited, can be helped to sit in a wheelchair if the appropriate equipment is made available. Once properly positioned in the chair, many people can gradually increase their tolerance for sitting up.

- **Promote functional control of the head or extremities** – Many children with motor disabilities lack the innate stability that allows us functional control of our bodies. Providing external stability at key points of the body enables them to use even limited movement abilities to their best advantage. Thus, a child who has limited head control and hand use and is unable to sit alone when placed on the floor, may demonstrate good head control and improved hand use when seated in a therapeutic seating system. This has implications for breathing, eating, speech, ability to move the chair, and learning. Over time, many children can develop better head and trunk control and hand use through being properly positioned.
- **Prevention of pressure sores** – Pressure sores are caused by a combination of factors, and can become life threatening if left untreated. Those who are unable to move parts of their body and lack sensation are especially at risk. We met a 7 year old girl who developed a pressure sore requiring surgery because her only means of mobility was scooting around on the floor. A properly fitted wheelchair with pressure relieving cushions can limit the development of pressure sores. An ill-fitting wheelchair or no chair at all may cause pressure sores.
- **Improved nutrition** – Many children with motor disabilities have difficulty eating because of poor trunk, head and oral-motor control. Properly planned therapeutic seating systems can support children in positions best suited for effective head and oral motor control, resulting in better chewing and swallowing. As children with motor disabilities grow in size it can become very difficult for family members to provide adequate support to feed their children, and a chair with proper seating can ease this aspect of care giving. Improved nutrition will facilitate a child's improved health and development in all areas.
- **Implications for learning and communication** – It is difficult to focus on learning or communicating with other people if one is struggling just to maintain sitting balance. Children with motor disabilities are able to learn, communicate, participate in activities and interact with their families to the best of their abilities if they are well supported in a therapeutic seating system.

Tamara Kittelson-Aldred, MS, OT, ATP
Occupational Therapist/RESNA Certified Assistive Technology Practitioner
Eleanore's Project, Inc.
501 E. Central Ave.
Missoula MT 59801 USA
www.eleanoresproject.org

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