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Most people can move or change position at will. However, compromised motor functioning is common among people with a developmental disability, putting them at increased risk of incidents and injuries. Therefore, this issue of TheSafetyNet is dedicated to increasing the understanding of physical management.

Physical management refers to the 24 hour-a-day techniques designed to develop movement and skills, to minimize problems associated with immobility, or to minimize the development of skeletal deformities or other secondary conditions, illnesses or injuries. Physical management offers increased protection from harm while allowing people to participate in activities to the maximum extent possible.

Therapeutic Positioning

We move in and out of different positions throughout the day: supine (lying on the back), prone (lying on one's stomach), side-lying, kneeling, sitting, or standing. "Therapeutic Positioning" means that there are benefits from each position. Positions in which the trunk and head are upright (i.e., sitting, kneeling, and standing) are healthier positions as they increase circulation and levels of awareness, involve weight bearing, and contribute to lung expansion. There are many goals of therapeutic positioning that include better body alignment, prevention of skin breakdown and increased independence. By using therapeutic positioning techniques, improvements can be shown in:

- joint range of motion allowing increased participation in daily tasks
- muscle tone and quality of movement
- body alignment allowing for improved skin condition
- stability in order to perform tasks more independently
- respiratory status, digestion, health status, and functional ability

If a person needs assistance assuming or maintaining body positioning, a therapist or health care professional can determine appropriate positioning tailored for that individual.

Body Mechanics

Body mechanics is the term for recommended methods to lift or move another person in order to reduce the risk of illness or injury to both the person being assisted and the caregiver. As a caregiver, providing a safe environment for others means keeping yourself safe too! Basic principles of Good Body Mechanics include:

- Keep lower back curved slightly inward.
- Bend your legs at the knees and hips (squat) and let your strong leg muscles do the work. Don't lean or bend over at the waist.
- □ Keep your legs at least shoulder width apart with one foot slightly forward.
- □ Keep the person being lifted as close to your body as possible (Heart to Part).
- Turn by moving your feet. Don't twist your back.
- Dress appropriately. Wear flatheeled, well-supported shoes and comfortable clothing. Be mindful of jewelry such as rings, bracelets and necklaces.
- BREATHE!!!! Don't hold your breath.

Always remember, if you are going to lift or move a person, make sure he knows that he is going to be lifted. As a general rule, don't attempt to lift more than 50 pounds per person.

Physical Management Techniques

Physical management is used to move another person from one position or place to another. Effective techniques can minimize injury by decreasing abnormal muscle tone and movements. Effective techniques include:

- **1. Planning.** Think, talk and walk it through BEFORE you start. Clear the path. Have equipment within easy reach. Secure the appropriate number of people to help with the transfer.
- 2. Communicate. Decide who will lead the transfer. Let the person being moved know in advance what will be occurring. Approach him from a direction so he can see you.
- 3. Encourage independence. Let people help any way they can.
- 4. Use slow and smooth movements.



- □ Use firm touch closed fingers and flat palms. Make it a positive experience.
- □ Lift the person's arms/legs between the joints, not at them.
- □ Make contact toward the center of the body if possible.
- □ ALWAYS let someone know that you will be touching him and where.

Adaptive Devices

To increase independence and provide a safer environment, people with movement problems often require special equipment for mobility and/or for positioning. Examples of these devices include: braces, wheelchairs, corner chairs, side-lyers, wedges, etc. Training should be available to ensure caregivers can safely use all specialized equipment.

Positioning to Prevent Pressure Ulcers

Pressure ulcers, also called pressure sores, are caused by a lack of blood flow to a particular area, leading to tissue breakdown and tissue death. Pressure ulcers can lead to infection, but with a few basic precautions, can be prevented. To prevent pressure ulcers:

- 1. If someone is unable to change positions or changes positions infrequently, reposition him at least every 2 hours or when there are signs of discomfort.
- 2. Check and change clothing and linens frequently, especially when soiled.
- 3. Check the skin condition each time you move someone. Red marks that last beyond 20 minutes should be reported.

People most at risk for developing skin problems include: people with diabetes or persons incontinent of bowel or bladder, who are thin and frail or who depend on others to move them from one place to another. Body areas most likely to develop pressure sores include "boney" spots like the heels, shoulders, elbows, spine, hips, etc. Common signs of potential problems include: changes in skin color (such as redness that does not disappear after a position change) or spots that are unusually warm to the touch. If you notice such areas, adjust the position and report the situation to medical personnel as soon as possible. Never leave any open lesion unreported.



Lack of movement can put a person at risk for illnesses that may lead to hospitalization. The most common risks are:

- Skin Conditions: The lack of movement can affect the health of the skin by putting pressure on the skin and underlying tissues. The previous section on "Pressure Ulcers" provides more details.
- Gastrointestinal: The lack of • movement and weakened muscle tone can result in reduced ability of the stomach and bowels to empty completely, increasing the risk of reflux and constipation and the development of pneumonia or impaction.
- **Respiratory:** When a person is immobile, more effort is required to expand the lungs. Lung secretions tend to pool, which can increase the risk for illness and pneumonia. To prevent pneumonia, help each person cough, breathe deeply or change positions frequently.
- Urinary Tract: Retention of urine in the bladder causing urinary tract infections may occur as a result of decreased physical activity. Sitting, standing or prone in an upright position (e.g. using specialized equipment) promotes emptying of the bladder and can help prevent infections.

Who Can Help

Speech, physical, and occupational therapists are professionals who can assist by:

- Identifying needed adaptive or assistive devices.
- Developing strategies to promote motor development.
- Recommending physical management techniques, positions, and positioning schedules to minimize risk and optimize health and safety.

Safe physical management techniques may differ for each person. Individually specific techniques should be developed by therapists and staff should be trained in effective ways to carry out recommended procedures.

Bath Time Bath time can be

a particularly dangerous time for everyone, but especially for people mobility issues. To increase bathing safety:



- $\sqrt{1}$ Provide a non-slip surface in the tub or shower. Non-slip shoes can be worn.
- \checkmark Use proper equipment, such as grab bars or benches.
- \mathbf{N} Guard for loss of balance when lifting legs to get into and out of the tub or shower.
- $\sqrt{1}$ Dry the floor and the person's body completely before getting out of the shower or tub.

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Contact The Columbus Organization, at 916-960-0134 or columbusorg@ddssafety.net to receive future editions of TheSafetyNet electronically. Why not tell a friend, colleague, or family member? They can sign up too.

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Resource information for this newsletter was provided by: Community-Based Curriculum (1989, Brookes); Adult Positions, Transitions, and Transfers (1998, Therapy Skill Builders/The Psychological Corporation); Mental Retardation: Foundations of Educational Programming (1995, Allyn and Bacon); Health Care for Students with Disabilities (1990, Brookes); Challenges in Physical Management (1996, Oklahoma Department of Human Services); Dawn Locke, OTR; and ddssafety.net