From Dr. Escudé...

Positioning to Facilitate Better Function and to Assist with Swallowing, Digestion and Elimination

Some people with intellectual and developmental disabilities (IDD) have difficulty with mechanical function of their bodies. If a person is not helped to actively move, the likelihood of deformations of their body greatly increases. The limbs can become twisted and the muscles weak from disuse. These deformations then make it more difficult to move and thereby lead to further deformations and degradation of the systems of the body.

Few people with intellectual and developmental disabilities (IDD) are born with bony deformities. This is more often a function of failing to initiate the battle with gravity that begins with spinal shaping from a belly-down position. If, instead of moving the head and spine against the opposing force of gravity that normally changes the spine from a big C into an S curve, the individual remains on the backside with little active movement, the body will take a new shape that reflects the primary pattern of movement. The head and spine will often flatten and reshape into scoliosis, kyphosis and a flattened chest.

Consider an individual that eats with her head rolled back and to left. This position prevents an adequate closure of the epiglottis. Bits of food can just fall right into the airway. She develops aspiration pneumonia which leads to fibrosis in her lungs. Even if the poor eating posture is thereafter corrected, the fibrosis will predispose her to further episodes of pneumonia.

The key lesson here is prevention. See that they get enough active movement to prevent deformity and weakening of the muscles. Be sure that they eat as well-aligned as possible to prevent aspiration. This should all be covered in the Physical and Nutritional Support Plan for that person.

Let’s compare weight loss to physical therapy. Consider a person who is morbidly obese. Doses of therapy, such as a 300-calorie meal three times a week, will seldom impact the problem unless movement and intake are modified 24 hours a day. Many clinical services are delivered in doses, but most major issues, such as obesity or recovery from a stroke, require a major alteration in lifestyle.
With that in mind, consider a person who has a physical disability. They go to see a physical therapist for three doses of physical therapy per week. They then return home and are placed in a chair for the rest of the day before being placed in bed. That physical therapy is wasted and will have little, if any, impact on the health of the person.

Physical therapy is often delivered in doses to a person who needs modification of life-style 24 hours a day. Babies born with hemiplegia, the most common form of cerebral palsy, want to use only their good side and leave the involved side dragging behind. When they are forced to use the involved side from the beginning, within a year or so, one can often not tell that the toddler had a disability at all.

This makes the case for 24-hour planning that utilizes many forms of supports to achieve a more functional body. It is not only up to the therapist or clinician to manage the person’s health. It is up to each person who supports them to understand the forms of support this person requires and how they fit in. Rather than focusing on doses of therapy, we should develop a therapeutic lifestyle.

Basics of proper alignment for eating:
- Align the person starting with the proximal joints, and work your way out to the arms and legs
- The trunk in relation to the hips should between 45 and 105 degrees with 90 degrees the theoretical optimum
- We can eat in other positions besides sitting, such as prone-on-forearms or side-lying. These positions are usually reserved for people who have deformities such that sitting is not a good position for them.
- The trunk should be as straight as possible with the nose, navel and knees pointing in the same direction
- The head should be pointing forward with the nose at midline. The head should not be tilted forward or back as that interferes with the function of the epiglottis in covering the airway. The most dangerous of these is tilted back as it opens the airway up. It is very dangerous to eat this way
- The person may need to have their head supported in neutral and a little help to pull the jaw forward

The following are the therapeutic life-style basics of what a person with abnormal movement patterns need:
- A range of positions that alter weight-bearing surfaces and anatomical exposure to gravity at least every 2 hours in a waking day, with the least time spent in supine
• At least three, preferably four, positions that alter weight-bearing surfaces
• There should be at least one position that forces active movement, such as prone-on-forearms, quadruped-on-forearms, tall-kneel or tall-stand
• Working positions are a set of positions that force the body to move on its own. Working positions should be used regularly, but with breaks, like exercise
• The nose, naval and knees should be pointing in the same direction, unless the pelvis cannot be levelled. When the pelvis is out of alignment, clinical intervention is needed to determine how to achieve it
• The head should be assisted to initiate movement in rotation, extension and flexion and to learn to co-contract or balance in a neutral position
• Pressure redistribution is important for preventing pressure injuries
• A person should spend the least amount of time with the body out of alignment

Thanks for your careful attention to helping improve the lives of people we support.

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Dr. Escudé has dedicated his career to providing healthcare for people with IDD and other vulnerable populations and teaches on the subject throughout the country.