Binder
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Notes from a discussion with Precision Physical Therapists

1. When using paced physical guidance (Guide/Do), inhibitory positioning is extremely important, especially in working with spastic clients or those with hypertonicity. For instance, when repeatedly guiding a squeezing movement (grasp.release) with the hand, be certain that the hand is in neutral or even slightly extended rather than flexed position. Therapists are accustomed to inhibiting positions, but the use of paced guidance requires even greater sensitivity to their effects than usual.

2. Also, of course, use relaxation procedures if they reduce spasticity during subsequent paced guidance. "We've always been taught to handle these clients slowly. But this may not be necessary in many cases." We need to explore the possible benefits of using paced physical guidance as a teaching/therapeutic tool.

3. "You can only go as fast as the tone will allow you to go." We know that tone changes from day to day, and even during the day, with a great deal of variability or "bounce." When putting a hypertonic client through a movement with paced guidance, watch his/her face and other body parts for "early warning" of the onset of spasticity. When you increase the pace to the point of these beginning signs, back off a little bit to the "comfort zone" and guide the movement at a slightly lower pace. You may find that, with enough daily practice of this kind, the pace at which spasticity begins will increase over time (days or weeks). By charting this pace (count per minute for short intervals, e.g., 15 or 30 seconds) you may see an increase over time toward the normal range of paced movement. In fact, by measuring in this way every day, at different times of the day, you may obtain a very sensitive indication of improvement over time, and/or variability within the day. The object is to be able to guide the client through movement at the frequency (count per minute) at which "normal" persons can volunatrily engage in that movement. When you reach that frequency, you can make a change to a lower level of support (e.g., Nudge/Do).

4. With "floppy" or hypotonic clients, the strategies are somewhat different. Positioning is also important with these clients. In some cases, what appears to be hypotonicity may actually be a profound lack of strength. Thus, for instance, you should try positions in which the movement is not working against gravity. With hypotonic clients we use paced guidance and then check to see if they can continue the movement with a lower degree of support for even a few seconds. The object is to enable the client to continue even a slight movement for 10 or 15 seconds, and to accelerate the frequency of Nudge/Do movements as close to the normal performance frequency as possible. If you can get only a slight amount of voluntary movement, you probably have dropped too far in amount of support. Use whatever amount is necessary to accelerate the movement frequency toward the normal range over a period of weeks or months.

Then drop to a lower level of support, and start again. In general, this strategy works best with hypotonic clients when you are working at the end of their range-of-motion where both strength and the stretch reflex are most likely to assist the process. Such clients can't stabilize their movements anywhere but at the limits of their range (e.g., fully flexed wrist), and that is also where the stretch receptors can provide feedback from the movement. If you can achieve paced voluntary movement at the end of the range, you may be able to gradually increase the excursion of movement and the tone between the limits of the range.

5. Clients who engage in repetitive "self-stimulating" movements may give you some clues about how best to use paced guidance with them. Hypertonic clients with such repetitive movements show us which positions and which kinds of movements might best come under voluntary/instructional control. Hypotonic clients who engage in such stereotypies usually do so at the ends of their range of motion (e.g., extreme head-twisting). If these movements "feel good," to the clients, they may also lead us to successful therapeutic interventions to develop voluntary, fluent movement patterns.