

## Physical Disabilities Activities

### Adaptations for Playing Instruments

*Chadwick and Clark's Clinically Adapted Instruments for the Multiply Handicapped* is an excellent resource to use when designing adaptations to enable people to successfully play musical instruments. Big knob sets and rhythm band instruments are available for purchase commercially. However, these adaptations for grasping instruments simply allow access. They do not continually challenge the person to develop progressive grasping abilities. Using Velcro to build up handles and/or to attach an instrument securely to a person so the instrument does not fall on the floor is helpful. Using handles of various sizes will continue to challenge the person to work on grasping. For example, beginning with a big knob set cymbal may allow a person with physical movement difficulties to play the instrument independently. Once the person is comfortable using a big knob cymbal, add in a new challenge with a cymbal handle that has a lip on it. Ultimately, use a cymbal handle that is fluted or even continues to change the handle, requiring more and more dexterity until the person can play a regular cymbal successfully.

Various sizes of claves may be used to continually challenge people with their grasping ability. If a person is very weak and needs to build strength, begin with a small skinny clave and then gradually move up to longer and wider claves, requiring more strength of the person. If the person has difficulty controlling extraneous (choreoathetoid) movement, begin with a longer stick to weigh the stick down so it does not fly away in response to the movement exhibited by this person. Then begin to use shorter and thinner claves as the person gains control. If a person has difficulty with fine motor coordination, begin with fatter claves and then progressively move to a thinner clave to develop fine motor coordination.

### Room Accessibility Considerations

- **Floor surfaces** should not be carpeted or slick. The floor surface should be user friendly for people who use walkers, crutches, or wheel-chairs to navigate.
- **Hand rails** along the side of the room and especially at the entry ways are useful.
- **Chairs** should stand alone, not attached to writing desks. Straight-back chairs are preferred.
- **Ramps** will be needed if stairs are present.
- **Elevators** might also be needed for facilities with more than one floor.
- **Double-wide doorways** are also needed.
- **Tables** should be of adjustable height, so they can accommodate people with different wheelchairs.
- **Positioning** – it may be helpful to use wedge and physio-balls to allow positioning that yields the best physical responses. Some people may

need to be positioned on rolling-boards or in bean bag chairs to achieve maximum potential of functional use for motor activities.

### **Playing Musical Instruments to Develop Bilateral Coordination**

Weights may be placed on the instrument for two purposes:

1. To increase strength
2. To decrease extraneous movement

### **Playing Musical Instruments for Developing Motivation**

Playing musical instruments can provide motivation to perform exercises that are needed from a therapeutic standpoint. For example, a young child with a flexion contracture may reach out to play a slide whistle or even a slide trombone to help increase range of motion and stretch out the contracture. This activity is successful due to the following reasons:

1. Initiation increases – The child performs these exercises more frequently and independently, simply because of his or her interest in the activity, instead of just doing the activity in the presence of a physical therapist or nurse.
2. Endurance Increases – Due to the motivation of the music, the child may continue to perform these exercises for longer durations of time.
3. Effort Increases – In response to rhythm and energy of musical orchestration, the child may respond by putting more effort (energy/power) into performing the exercises.
4. The relaxation effect of music may lead to an increase in range of motion, allowing the muscles to stretch out further.
5. Due to the pain distraction, characteristic of the music, the child may push past the pain threshold to perform the exercise more frequently and for longer periods of time, resulting in an increase in range of motion.