

## **Feldenkrais® Functional Activities for People with Stroke or Traumatic Brain Injury (TBI)**

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It's difficult to assess exactly what was damaged in a stroke or TBI and how the damaged area of the brain interrelates with functions in the body. How can we optimize healing for someone with brain injury?

Financially, daily professional therapy may be impossible for most. The more a family and daily care team can integrate functional learning activities on a daily basis, the better. Therefore, I've written this general guideline for family, care workers and health practitioners unfamiliar with the Feldenkrais Method® on ways to help improve function for people with a stroke or Traumatic Brain Injury (TBI.) Many of these activities below may be used by occupational, physical and other therapists. I have adapted and developed the activities below based on my work with the Feldenkrais Method® which has a focus on connecting with a person's nervous system and skeletal awareness for easier movement.

The functional activities below are designed to stimulate the Sensory Nervous System which will in turn stimulate the Motor Nervous System for movement. The Sensory Nervous System registers pressure, movement, direction, weight, space/time, hot/cold, smell, taste, and sounds. Using sensory stimulation is a wonderful way to work with connecting and helping better organize someone's brain for movement and function. My goal is to provide care-givers, family and practitioners with information and tools to help their loved ones and clients heal and progress to higher function.

### **For best results:**

In general, work with an activity or movement which the person already does well or has an interest/passion for. Connect the activity to something either useful, engaging or even entertaining in this person's life. Find activities that relate to their hobbies and interests.

If her right side is paralyzed or highly tonic, work with the left side first to improve her coordination and sensitivity and gradually introduce the less sensitive or responsive areas into the activity. For the activities below, start with the functional side and spend a shorter time on the less functional side (so you don't irritate them or frustrate them.)

### **Start with easy:**

Always try to choose activities they can easily succeed with before introducing something difficult and if they fail, go back to what they know and can succeed with.

### **A precaution about touch:**

Because people with stroke or traumatic brain injury are more vulnerable in being unable to move or speak, be careful with your touch (and also voice and sounds) to avoid overstimulation. Slow yourself down with some nice full breaths before you enter the room to sense their state of mind and what kind of attention they have in that moment. Are they tired? Sleepy? In Pain? Content? Bored? Lonely? Happy to see you? Assess what you can about their energy level.

- Move slowly and clearly so they can follow your movement the way you would follow a fly walking up a wall.
- Speak slowly, distinctly and allow pauses for them to contemplate what you are saying.
- Repeating yourself is helpful and helps to reinforce their understanding. It's good to explain that you are trying to just be clear and aren't sure how hard it is to understand you so that is why you are repeating things to them. If they can respond verbally or non-verbally to show their understanding, this is helpful. Ask them for feedback and explore how to get feedback if they can't speak. Blinking, head turning, pointing, squeezing your hand— what can they do for communication? This repetition may not be necessary as they progress, but I believe is very helpful to them as they learn to organize language and cognition again.
- Using a laminated paper with the diagram of a body - they can point to areas of the body that need attention or have pain, or can nod if you point to areas on the picture. Also a piece of paper with some functional goals of what they want to work on: Walking, eating, Hand dexterity, Feet, Arms, Legs, Swallowing, Rolling, Crawling, Jaw, Speaking, etc. I have them pick two areas or two goals which helps with engaging their motivation and also giving them more a choice in their growth/healing.

### **Activities to help stimulate the connections of movement with the brain:**

#### **Interlacing Fingers:**

After working a bit with the paralyzed side so they are accustomed to being touched, you can begin to have the functional hand interlace fingers with the non-functional. Don't force this. Begin slowly and watch for irritation and agitation. (If they get too irritated, they won't learn as well and it can interrupt progress if not even be slightly traumatizing.) Stop, take a break and distract them with something pleasant. Remember to breathe if you feel them tense up. If they calm down quickly, you can return to exploring the interlacing of the two hands.

#### **Working with hand on clipboard or thin piece of wood (can use a thin hardcover book):**

Put their hand on the clipboard and exhale (for yourself) as you touch - this will help them and you relax. Hold the contact for at least 10 seconds to slow down your mind and connect with their nervous system. After this time, begin to slowly move the board to find which directions are easiest and slowly return to a neutral place that feels like the middle. Rest for approximately 10 seconds (count if that helps you) - and notice how the resting may help settle their muscle tone and help their brain connect and integrate what you have done.

Gently, continue slowly to move the clipboard to engage the full hand, encouraging more and more contact of the entire surface of the hand (increasing the sensory area of stimulation). As you tilt the hand using the support of the clipboard, feel how the weight of the hand connects through their skeleton—up the arm and perhaps all the way into the shoulder girdle. Make sure to do explorations in stages with a nice rest period between stages. Compare how this hand feels compared to the other. It's an amazing process to feel the skeletal support in the movement and very pleasurable for the person receiving.

#### **Working with a foot on clipboard or thin piece of wood:**

The feet can be very sensitive to touch— make sure you let them know ahead of time what you

are going to do and show them the board.

Very gently, bring the clipboard to touch the bottom of the foot. Sometimes, with bedridden clients this can elicit a lot of pain so you may need to do this introduction in stages. A little bit of contact at a time, but be careful the contact with the board isn't too light that they may feel ticklish. As with the previous exploration, exhale (for yourself) as you touch will help them relax. Begin with holding the contact for at least 10 seconds to slow down your mind and connect with their nervous system. After this time, begin to slowly move the board to find which directions are easiest and slowly return to a neutral place that feels like the middle. Rest for approximately 10 seconds (count if that helps you) - and notice how the resting may help settle their muscle tone and help their brain connect and integrate what you have done.

Be careful to listen to move where their feet allow and avoid forcing their foot to stretch. This is a delicate process of listening to where their body has an opening for movement. Often the toes are curled and stiff or the opposite— flaccid. Keep looking for the bone contact with the board and sense even with a light pressure how the bones press into each other all the way up the leg into the hip. Be sure to rest even between each exploration for at least 10 seconds and often 20-30 seconds. Compare how this foot feels to the other after you finish one foot.

### **Working with a ball and rock:**

#### **Ball:**

Slowly roll a small ball from each finger up the hand in stages with rest periods as was done with the clipboard. Until the ball can roll up the arm to connect the hand to the collarbone, and also to connect the hand to the chin (for hand coordination of feeding and grooming later on...).

Slowly roll a ball from each toe up the leg to the hip and even all the way up to the chin. Again with the goal of creating neurological connections for movement of the feet and legs.

If they can hold the ball, assist them in rolling the ball on themselves, eventually to their paralyzed side (connecting the two sides in the brain).

#### **Rock:**

Rocks are amazing and profound therapy tools. The stillness and heaviness of a rock is immediately grounding and very healing. I use a good sized rock that fits nicely in one's hand (1-2 lbs.) Different textures, shapes and colors are nice for stimulation. There are so many ways to use rocks I will write more about this, but simply holding a rock is very calming for a brain-injured person. Sensing the rock on a body part can be a great way to sense one's bones, which helps in creating an internal map of support.

### **Music and Rhythm:**

Music is one of the oldest and broadest links within the brain. Find out what their favorite music is and play it or sing it (unless they don't want you to.) Use the beat of the songs to stimulate movement: clapping or tapping fingers or toes. Counting out loud is also helpful and can be calming. If they can't tap, you can gently tap with your hands on their palms (imitating clapping) or on their thigh (simulating patting their own leg). **Be careful to go slowly with rhythms, take frequent breaks in between since too much stimulation and too fast can be confusing and irritating.** Sometimes, these rhythmic experiences trigger links in the brain that tie into old movement patterns. I've seen leaps of recovery using music. Even if you don't have the best singing voice, it can be lovely to have someone sing to you in loving manner.

**Humming is also helpful and helps clear tension in the throat.** Breaking down the “Om” chant into 3 parts: Ah, Ohh, and Ummm is another great activity to calm and balance the heart, throat and brain.

### **Rhythmical Poetry or Songs:**

Especially if they like poetry, this can be a nice tool to combine with touch or movement. Be sure to repeat lines often. Rhyming poems, limericks and goofy rhyming songs can be awesome — and I’d avoid disney’s ditty “It’s a Small World” unless you have a good relationship going :). Poems and songs are a wonderful way to stimulate short term memory, especially if it’s a good poem or song! The poet David Whyte often repeats lines over and over when he reads poetry and it’s a wonderful tool which helps the words stay in your memory.

### **Games:**

Games can be fun because they are social and engage a playful versus work or therapeutic tone to interactions. Make sure whatever game you play stays easy, fun, explorative and not too competitive.

### **Target Practice:**

I use often in my general practice and particularly with brain and stroke clients. Targets are helpful for vision/eye/hand coordination and satisfying— make the target big enough so success can be possible. Often a soft beach ball is a perfect ball for throwing and won’t damage anything in the room.

Other target practice games can involve touching an object with their finger or if they can hold a small ball or stick, pushing back against pressure.

Pushing and Pulling: with a rope, stick or ball in various directions - helps with balance and coordination.

\* Always stop if they get frustrated, find a way to make the “goal” easier and come back when it’s fun. Have other activities to do if one doesn’t work.

### **Cards:**

Solitaire is excellent for working with numbers, sequential number recall, hand-eye coordination. Just putting the cards in order or by suit can be satisfying.

### **Board Games:**

There are plenty of kids games that are colorful that can be used to point to colors, move the pieces on various colored squares and help with language and special connections. Big jigsaw puzzles may be possible as well.

### **Catching and Throwing things:**

Use nerf like balls or light small beachballs or balloons, small basketball nets for targets or cans, any kind of simple easy games of catch or target practice is very fun. It’s satisfying to bat things around and helps relieve some pent up frustration or aggression from being immobile.

### **Engaging the Mouth and Tongue:**

Use a straw and practice blowing the wrapper off, or blowing paper wads. Use a lollipop for sucking and have her move her lips and tongue in various ways to develop control. Practice smacking lips, licking lips in all different directions. Making vowel sounds. Making one consonant sound over and over while singing... “Ba, Ba, Ba...Ma, Ma, Ma...La, La, La.”. It’s endless the list of things we can do to refine the movement of the lips, tongue and mouth. This can also be done as a game if someone feels self-conscious.

The tongue is an important and rich area to connect with the brain. Anything to work with tongue target practice: touching teeth, lips, pushing with tongue, using chapstick, a little honey on the lips to engage licking and moving of the tongue. There are many lessons I work with the tongue I may include in a later article.

There are many more activities, but these are great foundation activities to address movement, language, and cognition. **Feel free to write me with additional tools you have found most successful and I’ll try an add to this guide over time. I’m making this available for free-- this article is OK to copy but please include my name, copyright and contact info.**

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