Dysarthria

Dysarthria can occur after stroke due to weakness or paralysis in the muscles controlling the mouth and facial movements or the respiratory system. Symptoms depend on which type of dysarthria one has and may include slurred speech, abnormal rate of speech (slow or fast), speaking softly, impaired pitch, impaired rhythm of speech, impaired quality of speech, drooling, and decreased mouth movements. Speech impairment can make it difficult to communicate effectively and may affect interaction with family and friends.

Treatment techniques for dysarthric patients may aim at slowing the rate of speech, improving breath support to increase volume of speech, strengthening face and mouth musculature, improving mouth/tongue movement, teaching adaptive strategies, and using alternative means of communication such as alphabet boards or computer devices. A speech language pathologist (SLP) can help a stroke victim overcome speech difficulties or learn to use alternative methods of communication if needed.

Below are some websites that provide more information on dysarthria and treatment. Unfortunately, there is still a lot of research to be done regarding what works on improving dysarthria. There is a lot of debate on what treatment approaches are effective and which ones are not. It is important for you to discuss this with your speech therapist in order to get the best treatment.

**Dysarthria information:**

- [http://www.speechandlanguagetherapy.com/communication-boards.html](http://www.speechandlanguagetherapy.com/communication-boards.html)
- [http://www.amspeechlanguagetherapy.com/communication-boards.html](http://www.amspeechlanguagetherapy.com/communication-boards.html)
- [www.amyspeechlanguagetherapy.com](http://www.amyspeechlanguagetherapy.com)


**Improving Dexterity/Fine Motor Skills**

Many components contribute to dexterity in the hands. The exercises below are geared toward the stroke patient that already has some movement in the hand but wants to work on making the hand more coordinated.

**Improving individual finger movements:**

- Try to type or play piano.
- Lift the fingers back and forth over a pen.
- Use cell phone apps that work on tapping or other finger movements.
- To improve the shape of the arches in the hand for grasping and pinching, one can try the following:
  - Hold an object (e.g. a few coins) in the hand with the ring and little fingers while trying to perform a task such as writing, using tweezers, tearing paper, or painting with the thumb, middle and index fingers of that hand. The other hand cannot help.
  - You can also hold a tube of toothpaste in the affected hand and try to unscrew the lid using just the one hand.

To improve manipulation of objects within the hand:

- Rotate a pen with the fingers.
- Try to move the fingers up and down a pen.
- Pick up small objects (e.g. coins/marbles) and move them into the palm one at a time until the palm is full then try to work the objects one at a time back out to the fingertips and place into a container or on the table.
**TASK SPECIFIC TRAINING**

Task specific training is a form of treatment used in stroke that involves repetitively practicing a task or part of the task. Task specific training has been shown in research to be helpful in helping a stroke patient improve reaching and arm range of motion.

The research on whether task specific training improves leg function is controversial and its effectiveness is unclear. The good news is that task specific training has little risk for side effects or complications so one could try it with little risk. One should consult with their therapist first to make sure they are performing exercises safely.

One fact that is clear is that moving the affected limb is important for recovery and for maintaining or improving motor programming in the brain for muscle movement. If one stops moving their affected limb, the area devoted to moving that limb will decrease in size on the motor cortex in the brain. Patients can end up with learned non-use of the affected hand. Task specific training may help prevent this learned non-use.


**CAREGIVER CORNER: TRANSFER AIDS**

There are many products on the market to help caregivers transfer patients or to help patients get up on their own. Below is a synopsis of some of the different aids that are out there.

**Seat Lift:**
There are various seat lifts available to help a patient get up from a chair including electrical powered (shown above) and hydraulic options.

**Transfer Pivot Disc:**
Designed for patients that can stand but not move their legs. Assists with turning.

**Transfer Boards:**
These are used to help patients slide from one surface to another. Some are a solid flat board and others have a sliding disc as shown in the picture.

**Standing Lifts:**
Depending on the model, these can be used for patients that need help standing and turning or just mainly turning. Some models give less support and the patient needs to be able to stand fairly well while others will assist more with the lifting. Once the patient is up, the caregiver can turn the lift to where it needs to go.

**Sling or Hoyer Lift:**
For transferring dependent patients who cannot stand or assist during the transfer.

**Transfer Tub Bench:**
Benches that extend out over the edge of the tub and allow patients to slide over the side of the tub. Some have solid seats and others have sliding seats.