

Thank You!

from Dan Heffley & Family

A Progress Report 2006~2007

Pronounce the word **baby** without placing your lips together to sound the **b's**. Or try to say **the** without first placing your tongue between your upper and lower teeth to create the **th** sound. We take these movements for granted. For Dan, it is profoundly difficult. The part of his brain that managed the dexterity in speech was eliminated by a stroke in June of 2003. Health professionals refer to difficulty in the coordinated use of the tongue, lips and mouth as oral **APRAXIA**.

A little less tangible is **APHASIA**. It is the inability to access information and reproduce it accurately in speech. If someone was to ask you whose signature song is ***"I Left My Heart in San Francisco"*** or who is the lead singer of the ***"Rolling Stones"***, you may blurt it out or you may have to ponder for a few seconds. The answers are in your storehouse of knowledge. They may not want to exit that storehouse unless a clue is provided. With aphasia, one's entire vocabulary is locked away. The answers are on the tip of the tongue but frustratingly, they remain on the tip.



Dan, Kim, Ryann and Jaiden



Dan at Duquesne with Speech Pathologist Jen Franks



Scott Flurry
of the INSTITUTE FOR LEARNING ABILITIES

The landscape of the brain is divided into functional areas. Virtually all language tasks are located in the left brain. Dan lost the left hemisphere in total. I asked a professor at Duquesne, Dr. Somers, how Dan was learning language in the absence of those specialized areas. He explained that Dan's recovery illustrates what many neuroscientist are now discovering; ***"...the brain has great potential for adapting its functions in response to injury."*** Areas in the existing right hemisphere are being adapted to take over for the lost areas of the left hemisphere.

Until recently, a person with a brain injury was given a short period of time to **SPONTANEOUSLY RECOVER**. Once the time period was completed patients were told that they had reached a **plateau** - a point at which they stopped improving. That is what Dan was told in November '03, five months after his stroke. Neither Dan nor his family accepted that prognosis.

The damage to the brain functions is analogous to the development of a newborn. Babies are born with the functional areas mapped out. However, the circuitry that connects those areas is rudimentary and developing. Babies cannot move with dexterity, nor can they generate the oral gymnastics associated with speech. Those who suffer catastrophic damage from a stroke or other brain injury are often pushed back to that point. Much like an electrical contractor rewires a house, the brain is working to redesign its circuitry. It is a big job. A job that Dan will struggle with for the rest of his life.



Sean Mike Dan Jim Pat
Dan's brothers provide daily physical therapy working both his good left side and paralyzed right side

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There are two essential elements in the re-wiring process. The first is the individual's determination and the second is the community's ability to provide the necessary therapy. Dan has been blessed with both. His progress is continuous, and on a monthly basis, we see small improvements. Dan has an indomitable spirit and an appetite for challenges. He also has the commitment of his family and the community.

Dan attends formal therapy three days per week at the **DUQUESNE UNIVERSITY LANGUAGE CLINIC**. Two days per week, he attends the **INSTITUTE FOR LEARNING ABILITIES** at Holy Family Institute, where he works with Scott Flurry on Cognitive Retraining. Dan also completes daily physical therapy with his four brothers and works with his parents serving as ad hoc language therapist.



Dan sanding a piece of molding



Physical Therapy
Using a Saebotex Device

Thank You!

To help underwrite therapy issues, that are not covered, a golf tournament is held at the end of the summer. For more information on this and on Dan please visit www.dhef.net