

INSTITUTE INSIGHTS

SEVEN FACTS ABOUT THE BRAIN:

- YOUR BRAIN USES LESS POWER THAN YOUR REFRIGERATOR LIGHT
- FREQUENT JET LAG CAN DAMAGE MEMORY
- VIDEO GAMES CAN HELP YOU MULTI-TASK
- THE BRAIN HAS A JOKE CENTER
- SUNLIGHT MAKES YOU SNEEZE
- YOU CAN'T TICKLE YOURSELF
- YAWNS WAKE UP YOUR BRAIN

BRAIN INJURY: A SCIENTIFIC GUESSING GAME

In .08 seconds, Google can provide 5,890,000 results for the name “Gabrielle Giffords.” In turn, every 21 seconds someone new falls victim to a brain injury. After the January 8th shooting in Tucson, Arizona, Congresswoman Giffords’ gunshot wound to the left frontal lobe has single-handedly piqued national interest and spotlighted the importance of rehabilitation after traumatic brain injury.



Gabrielle Giffords (Image via Wikipedia)

The Rehabilitation Institute’s mission to build brighter futures for children and adults with disabilities is based upon the philosophy that the sooner a patient begins rehabilitation, the faster they will recover. This same research-based methodology drives the hope of Giffords’ own gradual recovery in Houston. As an organization that acts as a bridge from inpatient to outpatient services, we see our patients grow stronger and more independent daily. At the same time, rehabilitation is a process: “Brain injury is a marathon, not a sprint,” explained Dr. Terrie Price, Rehabilitation Institute Director of Neuropsychology. “It takes time to develop a new owner’s manual.”

Although it is unclear what Giffords may face in her recovery, there are many obstacles ahead for individuals with brain injuries. For example, as a high-profile brain injury victim, Giffords will not only have to be assessed for primitive functions such as swallowing, walking and toileting, but also for deficits much harder to recognize until she begins speaking more.

Our Institute staff members work with some of the most challenging cases of brain injury, using an integrated team of seasoned professionals to cover medical and psychological rehabilitation. “Many of our brain injury patients may or may not recall their injury,” said Dr. Price. The medical team must assess the physical and psychological ramifications of injury prior to making a treatment plan.

“The problem is that where [Giffords’] injury is, there may be more subtle deficits,” said Lisa Koch, Institute occupational therapist. “If she had been hit further back, she might have shown more physical injury, but the frontal lobe houses what makes us human, such as personality and sequencing processes.” That is, until Giffords begins engaging in normal activities again, her attending medical staff will be unable to determine the complexity of her injury.

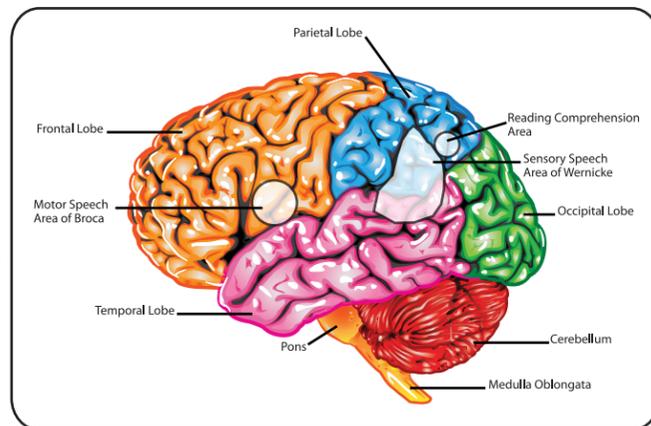
Among these subtle deficits, a patient with frontal lobe injury may face speech impairment, personality shifts, difficulty understanding symbolic and abstract concepts such as money and social etiquette, trouble sequencing events/items/daily tasks, inability to start activities without prompts and cues, difficulty filtering private and public thoughts, impaired spatial relation and vision, not to mention any other concerns arising in other parts of the brain.

Speech therapist, Schlyon Atkins explained: “When you have a patient like Giffords who appears to be making progress so quickly, you have to make sure certain assessments aren’t skipped over.” As a speech therapist, Atkins would have to determine the amount of activity that was purposeful for an individual. “Was she reading the iPad or was she just looking at it?” asked Atkins of the recent news reports that remarked at Gabrielle Giffords’ use of an iPad. “I would want to find a way to communicate with her to tease out what those subtle deficits are.”

With Institute patients, Atkins uses adaptive computer technology to determine what level of communication and reasoning a patient has at intake. “You have to assess where they are, so even investigating whether they can read is important.” Several activities therapists use for rehabilitation include adaptive typing activities, counting change activities, distinguishing written numbers from numerals, shape recognition and design identification and rehearsing daily chores in The Institute’s mock apartment. For higher-functioning individuals, therapists may work with patients to give speeches and perform proper emotional inflection as appropriate for social situations.

“We work as a team to teach [the patient] and their family strategies they can use for different tasks,” said Koch. As an example, Koch explained, “If you were a mother of three who had to cook dinner while the phone was ringing or your child were asking for help on his/her homework, we would have to help the patient sequence priority of events and then be able to re-initiate her activity after the distraction.”

While simple tasks can become great challenges for individuals with brain injury, the tasks ahead for Giffords are not impossible. “You can do a lot when you are willing to do things differently than you did them before,” explicated Dr. Price.



AN OLD BRAIN LEARNS NEW TRICKS WITH THE INTERACTIVE METRONOME

With each new stride in technology comes newer and better ways to help people with brain injuries and other disabilities reach their full potential. Today’s innovation comes in the form of an Interactive Metronome (IM) our professional staff uses as a part of our therapy programs.

IM is an assessment and treatment tool used to improve the neurological processes of motor planning, sequencing and processing. The IM allows patients to attempt to match rhythmic beats heard through headphones with repetitive hand and foot movements; it also helps to retrain the brain by allowing patients to stay focused longer on the actions they are doing. The Interactive Metronome provides structure for those who use it and auditory and visual feedback in the process.

According to Robin Miller-Goia, a Speech Pathologist at The Rehabilitation Institute, the IM has “helped improve [her] patient’s attention, organization, and communication skills.” She spends on average three days a week working with the new technology and describes it as an attention training program with multiple benefits.

The addition of this new technology was made possible by a generous contribution from Kevin and Connie Fahey. The Rehabilitation Institute is committed to bringing the best technology to our patients and we appreciate our donors for making that commitment possible.



KATHERINE COOK: A LONG ROAD FOR A LITTLE GIRL

There is no pill for brain injury. It can take months, years--lifetimes to recover from an injury to the brain. This was an early lesson for eight-year-old Katherine Cook. At five-years-old, Katherine was playing outside her home when a stray bullet from a long-distance range penetrated her brain. An unexpected outcome for innocent play, Katherine has spent the last three years recovering from the ensuing brain injury. “Two years ago, she couldn’t have kicked a ball with her left foot, but now she can—and has fun doing it,” explained Pamela Spencer, an Institute nurse who has been involved in Katherine’s treatment since she first came to us in 2008. It took six months in our Pediatric Day Program for Katherine to recover enough to go back to school.

Now at eight-years-old, Katherine is in the first grade learning to read and passing timed-tests. “She’s not keeping up with her peers, but she’s progressing and that’s a good thing,” explained Katherine’s mom, JoAnne Cook. Today, Katherine has the great task to strengthen fine motor skills, subtle cognitive deficits and arm and leg muscles. She still utilizes speech, physical and occupational therapy three days a week; receiving regular Botox injections in order to strengthen muscles on the left side since her brain injury has left her favoring her right side. “Her speech therapist is helping her with not talking to strangers,” said Spencer, who explained that losing one’s ability to differentiate between stranger and friend is a common deficit for individuals with a brain injury.

Katherine’s recovery is slow and unpredictable, but Katherine and her family are adjusting. As one of seven children, the Cook family has always fostered compassion, inclusion and acceptance in their lives and this philosophy shines through in Katherine’s recovery. “For the most part, she’s still a delightful little girl and we’re lucky her injury didn’t alter her personality like it does with some,” said Cook. “We had a choice to make: become bitter and angry or make something beautiful out of it,” Cook explained. They chose to make something beautiful.



Katherine (left) with her sister Elizabeth

In 2010, 34.2% of the patients being served at The Rehabilitation Institute had a brain injury.

THE INSIGHTS OF MR. WALT BODINE

As the current host of KCUR's "The Walt Bodine Show" and a long-time member of Kansas City's television, radio and philanthropic communities, The Rehabilitation Institute of Kansas City sat down with Mr. Bodine for a nice afternoon chat.

What was your first job?

My first job on earth? I was a soda jerk at the Bodine Drug Store off of Linwood and Troost. It was my father's store and I was about 15 at the time.

How did you get into your current career?

Well, I looked around and saw what was making noise and I thought I would do that.

What do you consider your greatest achievement so far?

Damned if I know! I have a long path behind me, but radio is what I like best—it's a different thing every day and sometimes you know there's something big going on and you're going to be talking about it. That's exciting.

What has been most memorable for you?

I've worked for seven radio stations and three television stations. To put it simply, I do things and I like them.

So if you could do it all again, who or what would you be?

If I could come back to life as anything, I'd like to come back to life as a gentleman...who knows and goes around with beautiful women.

What do you like most about Kansas City?

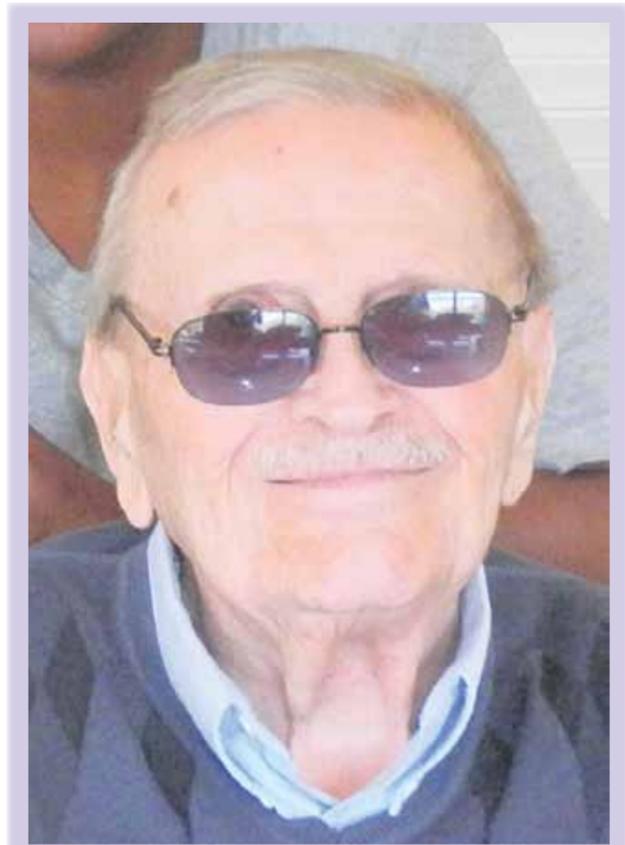
I love this city. It has lots of wonderful things to know and to be. It's not as bad as some larger cities and I thrive off of it.

If you could only eat one thing for the rest of your life, what would it be?

Ice cream. Chocolate ice cream.

What is your favorite thing to listen to on the radio?

KCUR, of course. I have it on all day.



Walt Bodine

Walt Bodine's son, DJ, is a participant in The Rehabilitation Institute's Extended Work Adjustment Program, R.I. Industries.

REBUILDING LIVES RESTORING HOPE CAMPAIGN

It's been more than 40 years since the Rehabilitation Institute engaged in a capital fundraising initiative. The year was 1968 and generous donations provided the funding for our current facility at 3011 Baltimore in Kansas City, Missouri. Today, the need for our services is exceeding our building's capacity and the aging facility is operating with its original windows, roof and heating and cooling system – all of which are inefficient and costly to maintain. Our \$7,000,000 campaign will allow expanded pediatric and adult medical rehabilitation treatment areas including the addition of an outdoor therapy playground and an indoor therapy pool. Plans also call for the expansion of our sheltered workshop, R.I. Industries, as well as increased parking and the relocation of our primary entrance from Baltimore Street to Main Street to offer better access to our services and better visibility on Main Street.

Visit www.rehabkc.org or call 816-751-7815 for more information about our Rebuilding Lives: Restoring Hope Campaign and how you can help.

CAMPAIGN ADVISORY DIRECTORS

- Lori Dean
- Peggy Dunn
- Sally Firestone
- Joseph Hiersteiner
- Pete Lemke
- Wendy Powell
- B. John Ready, III



**{ \$1,000,000 RAISED TOWARDS
OUR GOAL OF \$7,000,000! }**



Upcoming Events

- July 15, 2011 *Day at the Lake*
- August 27, 2011 *Bacon Fest: The Other Fundraiser*
- October 1, 2011 *Ability Quest: Run, Walk, Roll or Stroll*

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INSIGHTS

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