

Center for Aphasia



and Related Disorders

Presents

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Aphasia News

Welcome to Aphasia News!

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Have you Heard?

The annual
Summer Picnic
is June 6th!

See page 7

Dear Reader,

Welcome to the second edition of *Aphasia News*, our newsletter from the Center for Aphasia and Related Disorders. We hope all of you are well and enjoying the holiday season.

This edition of our newsletter contains a special contribution from our newest staff member at the Center. Dr. David Wilkins,

Each edition will contain a feature article on current research in aphasia or related areas. We are also planning articles reviewing the types of aphasia and facts about brain functions and the effects of stroke.

Some issues will also describe personal accounts of people's experience with aphasia, how their lives were affected, and the strategies they used in their recovery. For fun, there will also be an activities page with puzzles and exercises to try.

We have also included a survey

Have a wonderful holiday season!

Nina F. Dronkers, Ph.D.

Director, Center for Aphasia and Related Disorders

Aphasia Profile

by Darren Husted

Aphasia is a complete or partial loss of the ability to use and/or understand language, and is caused by stroke, brain disease, or injury to the brain. Aphasia may be mild to severe, and can disrupt few or many language functions including speech, auditory comprehension, reading, and writing. Severity of impairment usually depends on the location and size of the brain injury.

The majority of patients seen in our center acquire aphasia as the result of a stroke, which is an injury to the brain caused by an interruption to the brain's blood supply. A stroke can be caused by the following:

- **Thrombosis:** A coagulation in the blood vessels that supply the brain with blood. The disruption to blood flow (thrombus) occurs at the site where the thrombosis forms.
- **Embolism:** A mass of clotted blood or other formed elements (bubbles of air, calcium fragments, etc.) brought by the blood from another vessel and forced into a smaller one, thus causing the clot or "embolus" to lodge and obstruct the flow of blood to the brain.
- **Hemorrhage:** A rupture of an artery in the brain or on its surface. Such ruptures can be caused by an aneurysm (a thin, weak area on an artery wall) or by a congenital malformation of the brain's circulatory system. Hemorrhages may occur within the brain itself, or in the space between the brain and its protective outer membrane.

It is understood that the brain regions responsible for language are organized similarly in most humans. It is assumed that virtually all right-handed persons, and most left-handers have core language mechanisms represented in the left hemisphere, with the rhythmic aspects of language, e.g., intonation and prosody organized in the right hemisphere. But even though most of us share this general functional architecture, an identical lesion or, damaged brain region, in two different individuals doesn't always produce the

same deficits—this is not fully understood. However, the site and severity of the brain injury tend to be fairly good indicators of the type of aphasia a person has.

Aphasia types are usually characterized by the syndrome, or set of symptoms they produce. Generally, seven major types of aphasia are used to describe the range of language deficits caused by brain damage. This first installment of this newsletter addresses Broca's aphasia.

Broca's aphasia is a language disorder characterized by nonfluent speech and language. Someone with Broca's aphasia might exhibit decreased verbal output, difficulty speaking, reduced sentence length, improper or reduced tonal variation in speech (dysprosody), and speech limited mostly to the use of nouns, verbs, and adjectives (agrammatism). Comprehension of language is relatively better than verbal output but may also be adversely affected. Broca's aphasic patients also have trouble articulating, finding, and repeating words. In some cases, Broca's aphasics' ability to repeat sentences and phrases is better than their spontaneous speech output. In severe examples, language production is impaired enough to limit the speaker's speech output to single words or phrases that are repeated over and over. It is extraordinary that in such cases the patient may still be able to participate in conversation at a very basic level since their ability to comprehend single words or simple phrases is often intact. Also, their ability to use intonation in their speech output is often preserved even if they are limited to the use of just one word or phrase.

Broca's aphasia is often accompanied by motor speech impairments such as *dysarthria*, an impairment of the speech musculature in the face, and *apraxia of speech*, a disorder of articulatory planning. Both can adversely affect speech output, and both are frequently associated with the symptoms that comprise Broca's aphasia. ■

Face to Face

with Juliana Baldo, Ph.D.

Eddie has participated in research studies at the Center for Aphasia and Related Disorders since 1995. He's also an active participant in our weekly stroke support group. Eddie grew up in West Virginia and spent 22 years in the Air Force. He achieved the rank of Senior Master Sergeant and served in Korea and Vietnam. He graciously agreed to talk with me about his life and his experiences with stroke and aphasia.

Dr. B.: What did you do in the military?

E: Air EVAC—I took care of the patients when they were evacuated. I did medical training and attended academic instructor's school in Montgomery, AL.

Dr. B.: What did you do for work after the military?

E: I joined United Airlines—I was a flight attendant for 27 years. I was hired as a pilot, but a lot of layoffs, and I became a flight attendant. I liked it better.

Dr. B.: Why?

E: The people you meet, things you do for the airlines.

Dr. B.: Where did you fly?

E: In the beginning, I flew domestic to Hawaii and Alaska. Then we bought Pan Am, and I started flying internationally to Tokyo, Seoul, Manila, Hong Kong, Bangkok, Sydney.

Dr. B.: Were there ever any funny things that happened when you were a flight attendant?

E: You know Jim Nabors [Gomer Pyle]? I had him on a flight from San Francisco to Honolulu, and he was sitting in first class. This nice-looking lady had a gray pantsuit on and went to use the bathroom. The co-pilot came out and was talking to Jim Nabors. The co-pilot reached behind and opened the bathroom door and got his foot stuck with the door open. The lady had her pants down around her ankles, and she started hitting the co-pilot with her

purse. But he couldn't move because his foot was stuck. Jim Nabors was laughing so hard he was rolling on the floor. The lady was so embarrassed that she stayed in the bathroom until after the plane had landed.

Dr. B.: How and when did your stroke happen?

E: I was standing in the kitchen and I sat down, and my wife found me, and she knew what happened. Then they took me to Travis [hospital]. It was November 26th, 1995.

Dr. B.: Were there any warning signs?

E: No, and I'm glad I was at home [and not flying].

Dr. B.: How did the stroke affect you?

E: Paralysis right arm, right leg, and I can't talk. But he operated on me in January and cut my throat [surgery on his carotid artery].

Dr. B.: How did rehabilitation proceed? What helped?

E: Speech and physical therapy. I walk around the hospital all the time, and they took me down to physical therapy and I rode the bicycle and treadmill every day. And after the surgery, I used to have these little books—"Where I want to go" and "Who I want to see."

Dr. B.: Did physical therapy help?

E: Yes, especially the walking. I got my strength back. I did push-ups every day. I thought I was going back to work. The flight surgeon told me to retire. And I did. I accepted it. I can go anywhere in the world on United Airlines or with the Air Force.

Dr. B.: How were your encounters with medical professionals?

E: Good.

Dr. B.: What advice would you give to other people with aphasia?

E: Listen to your doctors and get exercise—physical therapy, recreational therapy. ■

Eddie continues to participate....currently lives....

Summer Feature Article:

Post-stroke Depression

by Joseph Elder , Psy.D.

At the Center for Aphasia and Related Disorders, we frequently receive reports from patients and families, that following stroke, dramatic changes in personality and mood occur. While many patients are acutely aware of the speech and language deficits, cognitive changes, and physical problems that accompany stroke, they may not be aware of changes in personality and emotional functioning that can arise. These changes may be subtle or nonexistent, or they can be incapacitating and the primary disability following stroke.

The most common emotional or personality change that occurs following stroke is depression, also referred to as post-stroke depression. Approximately 50 percent of patients who have suffered a stroke will experience depression at some point in the recovery process . These numbers are slightly lower among patients involved in rehabilitation programs or support groups.

In some cases, it is believed that post-stroke depression is the direct result of biochemical changes and damage to brain tissue that occurs following stroke. Depression can also be a psychological reaction to the experience of having a stroke, the grueling hospital and rehabilitation course, or a normal grieving period during which patients may have to mourn the loss of mobility, activities, or some functions. In most cases, it is a combination of changes in brain chemistry and alterations in lifestyle.

Depression should be of particular concern when it is protracted and doesn't improve during the course of rehabilitation. Patients should also be aware that depression sometimes arises months or even years following the stroke.

For example, sometimes patients are initially so involved in the rehabilitation process that it is not until after rehabilitation services are terminated, or their progress slows that they are able to process what has occurred.

Symptoms of depression include sadness or depressed mood, loss of interest in previously enjoyed activities, changes in appetite, altered sleeping patterns, fatigue, agitation, feelings of worthlessness, difficulty concentrating, and suicidal ideation. If you are experiencing some of these symptoms, you may or may not be depressed; however, you should be evaluated by a mental health professional immediately.

“Approximately 50 percent of patients who have suffered a stroke will experience depression at some point in the recovery process .”

The good news is that there are a variety of treatments that are very effective with post-stroke depression. Counseling or psychotherapy, medications, support groups, changes in lifestyle, and exercise are particularly effective in reducing post-stroke depression. Many patients experience a dramatic improvement in mood and even improved cognitive functioning with treatment. At the Center for Aphasia and Related Disorders, we are currently investigating the prevalence and severity of depression in stroke patients. We are particularly interested in the role that aphasia may play in depression, and the particular brain regions that may be involved. If you are interested in the ongoing research involving post-stroke depression, or if you want more information about post-stroke depression, please contact the Center for Aphasia and Related Disorders. ■

Perspectives

Life's Meaning for a Newly Disabled Old Man

by Emlyn Jones

In May 1988, at age 65, I lived through a massive stroke which left me with hemiplegia and with profound speech deficits. Communication was blocked by these deficits, but much was left intact. I still had my sight, hearing, and most parts of my memory and cognitive processes. I also lost my ability to spell correctly when writing in longhand. My poor verbal and handwritten communication skills exist to this day.

I was more or less fully uncommunicative for three years after my stroke. Speech therapists tried, to no avail, to instruct me to pronounce words coherently. But then I began using computer programs with special spelling and other writing components. Within six months I re-learned basic sentence structure and grammar. And now, 99% of my meaningful communications are completed by computer.

After 60 days of hospitalization in 1988, and other hospitalizations since then, the medical staffs and my beloved doctor suggested that I be placed in a nursing home. There seems to be a cultural imperative that older people, who have recently experienced a disabling and/or chronic trauma, are shuffled to nursing homes. Instead, I firmly believe that we should be asked, encouraged, and even trained as necessary, to live independently.

I have lived alone for years since then, and only recently hired a part time caregiver to do the household tasks. I drive a pickup truck which carries my power driven and manual wheelchairs. Since my stroke, I have driven alone, in my pickup or rental cars, to many

states, Puerto Rico, all over Europe and the United Kingdom.

I have taken on as a self imposed mandate to share my belief in offering independent living to the elderly infirm. My contribution to society, from which I have obtained much more than I shall ever be able to repay, is my effort to educate others. Medical professionals, students, and others in the helping professions need a climate in which an independent living component is constantly a goal for the elderly infirm, before nursing homes are considered.

In terms of the disability culture, the medical model sees me as being sick and in need of fixing. The psychological model perceived me as being deviant or pathological, and in need of counseling or psychotherapy. Only the educational model allows me to be as "normal" as possible. I received my Master's degree in education from Cal Poly at age 72.

I value challenge and accomplishments. I value results and I value being special. I value diversity, independence, and humor. The past nine years have been the most productive and the most fulfilling years of my life. ■

We would like to thank Mr. Jones for allowing us to share an excerpt of his autobiographical manuscript.

Mr. Jones participates in research at the Center for Aphasia and Related Disorders and currently resides in Davis, California where he continues to play an active role in his community.

Announcements

Aphasia News

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Newsletter Information

If you would like to receive this newsletter
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We welcome your comments and questions!