

Aphasia Facts

The use of speech to communicate is unique to humans. When speech is impaired or absent, the impact on the person and his family is profound. One of the most heartbreaking and devastating disabilities is aphasia. Most people have not heard about aphasia, nor do they know the term until someone in their family or a friend acquires aphasia.

What is aphasia?

Aphasia is an impairment of language, affecting the production or comprehension of speech and the ability to read or write. Aphasia is always due to injury to the brain-most commonly from a stroke, particularly in older individuals. But brain injuries resulting in aphasia may also arise from head trauma, from brain tumors, or from infections.

Aphasia can be so severe as to make communication with the patient almost impossible, or it can be very mild. It may affect mainly a single aspect of language use, such as the ability to retrieve the names of objects, or the ability to put words together into sentences, or the ability to read. More commonly, however, multiple aspects of communication are impaired, while some channels remain accessible for a limited exchange of information. It is the job of the professional to determine the amount of function available in each of the channels for the comprehension of language, and to assess the possibility that treatment might enhance the use of the channels that are available.

Varieties and special features of aphasia

Over a century of experience with the study of aphasia has taught us that particular components of language may be particularly damaged in some individuals. We have also learned to recognize different types or patterns of aphasia that correspond to the location of the brain injury in the individual case. Some of the common varieties of aphasia are:

Global aphasia: This is the most severe form of aphasia, and is applied to patients who can produce few recognizable words and understand little or no spoken language. Global aphasics can neither read nor write. Global aphasia may often be seen immediately after the patient has suffered a stroke and it may rapidly improve if the damage has not been too extensive. However, with greater brain damage, severe and lasting disability may result.

Broca's aphasia: In this form of aphasia, speech output is severely reduced and is limited mainly to short utterances of less than four words. Vocabulary access is limited and the formation of sounds by persons with Broca's aphasia is often laborious and clumsy. The person may understand speech relatively well and be able to read, but be limited in writing. Broca's aphasia is often referred to as a 'non fluent aphasia' because of the halting and effortful quality of speech.

Mixed non-fluent aphasia: This term is applied to patients who have sparse and effortful speech, resembling severe Broca's aphasia. However, unlike persons with Broca's aphasia, they remain limited in their comprehension of speech and do not read or write beyond an elementary level.

Wernicke's aphasia - In this form of aphasia the ability to grasp the meaning of spoken words is chiefly impaired, while the ease of producing connected speech is not much affected. Therefore Wernicke's aphasia is referred to as a 'fluent aphasia.' However, speech is far from normal. Sentences do not hang together and irrelevant words intrude-sometimes to the point of jargon, in severe cases. Reading and writing are often severely impaired.

Anomic aphasia: This term is applied to persons who are left with a persistent inability to supply the words for the very things they want to talk about-particularly the significant nouns and verbs. As a result their speech, while fluent in grammatical form and output is full of vague circumlocutions and expressions of frustration. They understand speech well, and in most cases, read adequately. Difficulty finding words is as evident in writing as in speech.

Other varieties of aphasia: In addition to the foregoing syndromes that are seen repeatedly by speech clinicians, there are many other possible combinations of deficits that do not exactly fit into these categories. Some of the components of a complex aphasia syndrome may also occur in isolation. This may be the case for disorders of reading (alexia) or disorders affecting both reading and writing (alexia and agraphia), following a stroke. Severe impairments of calculation often accompany aphasia, yet in some instances patients retain excellent calculation in spite of the loss of language.

Disorders that may accompany or be confused with aphasia

There are a variety of disorders of communication that may be due to paralysis, weakness, or incoordination of the

speech musculature or to cognitive impairment. Such impairment may accompany aphasia or occur independently and be confused with aphasia. It is important to distinguish these disorders from aphasia because the treatment(s) and prognosis of each disorder are different.

Apraxia: A collective term used to describe impairment in carrying out purposeful movements. People with severe aphasia are usually extremely limited in explaining themselves by pantomime or gesture, except for expressions of emotion. Commonly they will show you something in their wallet, or lead you to show you something, but this is the extent of their non-verbal communication. Specific examination usually shows that they are unable to perform common expressive gestures on request, such as waving good-bye, beckoning, or saluting, or to pantomime drinking, brushing teeth, etc. (limb apraxia). Apraxia may also primarily affect oral, non-speech movements, like pretending to cough or blow out a candle (facial apraxia). This disorder may even extend to the inability to manipulate real objects. More often, however, apraxia is not very apparent unless one asks the patient to perform or imitate a pretended action. For this reason it is almost never presented as a complaint by the patient or the family. Nevertheless it may underlie the very limited ability of people with aphasia to compensate for the speech impairment by using informative gestures.

Apraxia of speech: Frequently used by speech pathologists to designate an impairment in the voluntary production of articulation and prosody (the rhythm and timing) of speech. It is characterized by highly inconsistent errors.

Dysarthria: Refers to a group of speech disorders resulting from weakness, slowness, or incoordination of the speech mechanism due to damage to any of a variety of points in the nervous system. Dysarthria may involve disorders to some or all of the basic speech processes: respiration phonation, resonance, articulation, and prosody. Dysarthria is a disorder of speech production not language (e.g., use of vocabulary and/or grammar). Unlike apraxia of speech, the speech errors that occur in dysarthria are highly consistent.

Dementia: A condition of impairment of memory, intellect, personality, and insight resulting from brain injury or disease. Some forms of dementia are progressive, such as Alzheimer's disease, Picks disease, or some forms of Parkinson's disease. Language impairments are more or less prominent in different forms of dementia, but these are usually overshadowed by more widespread intellectual loss. Since dementia is so often a progressive disorder, the prognosis is quite different from aphasia.

How many people have aphasia?

It has been estimated that about one million people in the United States have acquired aphasia. The majority are the result of stroke. About one third of severely head-injured persons have aphasia.

Who can have aphasia?

Aphasia may occur in persons of any age, sex, race, or nationality. Vocation and education are not determining factors.

Can aphasia be temporary?

Yes. Temporary aphasia, called transient aphasia, refers to a communication problem that lasts only a few hours or days. More than half of those who initially show symptoms of aphasia recover completely within the first few days.

Can aphasia be prevented?

There are no definitive steps that can be taken to prevent the onset of aphasia in the event of a stroke or head trauma. The condition is determined by the location and size of the area of damage in the brain.

Can aphasia be cured?

No medicine or drugs have been known to cure aphasia, as yet. Surgery has been successful in those occasions where pressure from a brain tumor or a hematoma impacts a critical speech center. Surgery is not useful in cases of aphasia following stroke, which represent the vast majority of instances. Speech therapy is often provided to persons with aphasia, but does not guarantee a "cure". The purpose of speech therapy is to help the patient to fully utilize remaining skills and to learn compensatory means of communication.