

## Bilingual Aphasia

### Description

**Aphasia** is a neurological disorder characterized by language difficulties. Bilingual aphasia is a specific type of aphasia that affects two or more languages in a bilingual and/or multilingual individual. This type of aphasia is gaining increasingly more focus because half of the world's population is bilingual.

Aphasia, in both monolingual and bilingual speakers, is often a consequence of damage to the left side of the brain (like strokes, tumors, and hemorrhages) although it can also be seen in people with right brain damage. Depending on the brain region that has been damaged, people with aphasia can have various language difficulties. For example, damage to the lower area of the left frontal lobe (known as Broca's area) often results in verbal expression problems like substituting and jumbling of words for one another (called paraphasia) or difficulties with finding the right words to say commonly seen in the *tip of the tongue* phenomena (called anomia). Damage to the upper area of the temporal lobe (known as Wernicke's area) often results in difficulties with comprehension. Depending on the extent of the damage, however, people can also have global language difficulties, referred to as global aphasia.

Patterns of aphasia, however, are more complex when seen in bilinguals than in monolinguals and can include mixing of languages within or between sentences. While a person can have difficulties in all languages that they speak, they can also have aphasia in just one language (e.g., just primary language or just secondary language) or different type of aphasia in different languages (e.g., expressive difficulties in one and comprehension difficulties in another). The type of bilingual aphasia a person has depends on how and when each language has been learnt as well as what part of the brain has been damaged.

### Treatment and Recovery

Before treatment can commence, a clinician will typically do an assessment of the patient's language skills. To better understand what the extent of linguistic strengths and difficulties are, it is recommended that an assessment be completed in all of the languages spoken by the patient.

Spontaneous recovery, which occurs in the first six months post injury, results in highly variable recovery patterns of language function and depends on several competing factors like the age of acquisition of the second and subsequent languages, proficiency in each language, the frequency of use, affective and environmental factors, as well as organic factors such as the age of the individual and the type and extent of the brain lesion. Due to these factors, individuals with bilingual aphasia can present various recovery patterns. For example, sometimes the recovery of the languages reflects the linguistic abilities prior to injury (parallel recovery), while at other times the recovery of one language is much greater in one language than in the other (differential recovery). When a language that is initially available disappears whilst another language recovers, this is referred to as antagonistic recovery. Selective recovery refers to the loss of one language while the other language remains preserved and, finally, successive recovery refers to the recovery of one language before any of the other languages recover.

While some spontaneous recovery may take place in each language, it is likely that some targeted rehabilitation will also be needed. The rehabilitation is typically done by a Speech and Language Pathologist and may focus on compensatory strategies or on strengthening existing language abilities in one or all of the patient's languages. A targeted rehabilitation of one language may have therapeutic benefit to the non-treated language, commonly referred to as cross-linguistic transfer.

### Prognosis

The language recovery in people with bilingual aphasia is highly variable and depends on a number of factors. These include, the age of the patient, how and when each language was learnt by the patient, the extent of both the current language difficulties and brain damage the patient has suffered, the type of rehabilitation received along with what language is rehabilitated, and the level of therapeutic benefits transferred to the non-treated language(s).