Aphasia
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Language

- Understanding written and spoken words
Causes of Aphasia

• Aphasia is a disorder that is caused by:
  • Stroke
  • Head trauma
  • Dementia
  • Multiple sclerosis
  • Parkinson’s disease
  • Landau-Kleffner syndrome

85% of aphasia cases are the result of stroke.
Aphasia

- Main types of aphasia
  - Anomic
  - Broca’s
  - Wernicke’s
  - Global
Anomic aphasia

Severity

Wernicke's aphasia

Broca's aphasia

Global aphasia
Who is affected?

• People of all ages, including children
• Common in people over 65 years old

80,000 people are diagnosed with aphasia every year*

1,000,000 people have aphasia in the United States**

There are four times as many people diagnosed annually with aphasia than Cerebral Palsy (CP) and Amyotrophic Lateral Sclerosis (ALS) combined.
Anomic Aphasia

• Unable to produce the desired words
• Difficulty with word recognition
• Understands speech
• Able to read adequately
Wernicke’s Aphasia

• Damage to Wernicke’s area
• Jargon aphasia
  • “You know that smoodle pinkered and that I want to get him round and take care of him like you want before”
Broca’s Aphasia

• Damage to the production of speech
• Difficulty forming complete sentences
  • “I was bitten by a dog”
Global Aphasia

• Difficulty in understanding and forming words and sentences
• Cannot communicate
• Lead to other conditions
Diagnosis of Aphasia

- Physical examination and mental state examination
- Lab tests
- Imaging studies
  - CT
  - MRI
Treatment

• Speech therapy
• Constraint-induced therapy
  • Department of Psychology (University of Alabama)
• Medical treatment
  • Memantine
New Technology

• Transcranial Magnetic Stimulation
Clinical Trials

• There are currently over a hundred studies on TMS
Questions?