

Communication Problems of the Elderly

- Dementia
- Laryngeal and Vocal Function
- Hearing and Balance
- Vision Problems

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Dementia

- What is Dementia?
- Different Types of Dementia
- Common Causes of Dementia

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What is Dementia?

- Impairment of short and long term memory
- Impairment of abstract thinking, judgment and other higher level cortical function
- Personality change
- Severe enough to affect work, social activities or relationships with other (Am. Psychiatric Association, 1987)

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Types of Dementia

- Reversible
- Irreversible
- Partially Reversible

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Reversible

- Drug toxicity
- Metabolic imbalances
- Infections
- Alcohol abuse, etc.

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Irreversible

- Alzheimer's Disease
- Multi-infarct dementia
- Parkinson's disease
- Type 2 adult onset diabetes

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Partially Reversible?

- Cerebrovascular Accident (CVA).. Aka stroke
- Traumatic Brain Injury (TBI)
- Tumor

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Common Causes of Dementia

- Alzheimer's Disease
- Parkinson's Disease
- Multiinfarct Dementia
- Type 2 Diabetes
- Aphasia

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Alzheimer's Disease

- Accounts for 65% of all dementias
- Gradual and steady onset
- Hereditary predisposition
- Plaquing of neurons, loss of neurons, neurotransmitters, etc.

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Communicative and cognitive problems include ...

- Loss of intellectual abilities such as memory, judgment, abstract thought and other higher cortical functions
- Changes in personality
- Depression, delusions

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Parkinson's Disease

- Dementia occurs in about 40% of Parkinson's patients
- Can cause damage to the "deep brain" which is responsible for memory.
- Fewer language problems than Alzheimer's
- More overt speech and writing problems

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Multi-infarct dementia

- Second most common cause of dementia after Alzheimer's
- Secondary to cerebrovascular disease (i.e., circulatory disorders)

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Type 2 Diabetes

- Type 2 diabetes is typically found in elderly adults and is linked with genetic predisposition and obesity.
- Elevated blood sugar can cause metabolic changes and may result in mini-strokes to the deep brain, important for memory.
- Can also cause neuronal swelling exacerbating Alzheimer's and multi-infarct dementia.
- Speech and language not as affected.

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Aphasia

- Usually related to single even (e.g., CVA, TBI)
- Left cortex is affected
- Is more focal than Alzheimer's

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Aphasia (continued)

- Language Disorders is dependent upon site of lesion
- Possibly recall, word association, general language disorder, auditory comprehension. Patient may be fluent or non-fluent

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Aphasia (continued)

- Memory usually not impaired
- Difficulty with language tasks. Much better for non-language tasks.

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Laryngeal and Vocal Function

- Degeneration of vocal folds due to loss of blood supply
- Lowering of Pitch
- Loss of motor control (tremulous voice)

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*Laryngeal and Vocal Function
(continued)*

- More likely to have weak voice, hoarse, gravelly, or breathy
- More likely to have tumors of larynx that peaks between 50 and 70 years.

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Hearing and Balance

- Presbycusis
- Auditory Processing Disorders
- Balance Problems

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Presbycusis

- Hearing acuity decreases and is more prevalent in males vs. females and more common in whites when compared to other racial groups.
- Rapid decrease in hearing acuity after age 60.
- Due to loss of blood supply to the cochlea
- Smoking and "non-healthy" lifestyle may hasten onset.
- Elevated blood sugar in diabetes may affect neurotransmission of auditory pathways.

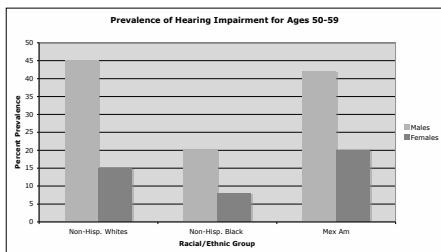
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Ethnic/Racial Diff. in Hearing Impairment in Ages 20-29

| Racial/Ethnic Group | Males (%) | Females (%) |
|---------------------|-----------|-------------|
| Non-Hisp. Whites | ~5 | ~2 |
| Non-Hisp. Black | ~8 | ~3 |
| Mex Am | ~10 | ~4 |

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Ethnic/Racial Diff. in Hearing Impairment in Ages 50-59



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Auditory Processing Disorders

- Thought to be secondary to neuronal degeneration which can be part of the aging process.
- People with this disorder can hear speech but may have difficulty with processing or understanding what is being said.

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Balance Problems

- Due to atrophy of neurons important for carrying information between inner ear and cortex, and degeneration of sensory cells important for balance in the inner ear.

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Vision Problems

- Affects reading and speech reading ability
- Types of vision problems
 - Macular degeneration
 - Glaucoma
 - Cataracts
 - Visual processing

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Summary

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