Overview of Alzheimer’s Disease
Today’s Objectives…

- Provide an overview of Alzheimer’s disease and related dementias
- Where can individuals, families and professionals get help
- Services available
What is Dementia?

• Not a disease, dementia is an umbrella term to describe a group of symptoms, including:
  • Loss of intellectual functions
  • Loss of memory
  • Confusion
  • Behavioral changes
  • Personality changes
Overview of Alzheimer’s Disease
Alzheimer’s Disease
• Early-Young Onset
• Normal Onset

Vascular Dementia (multi-infarct)

Lewy Body Dementia

Fronto-Temporal Lobe Dementias

Other Dementias or Delirium
• Genetic syndromes
• ETOH related
• Drugs/toxin exposure
• Thyroid
• Depression or other mental conditions
• Infections-
• Parkinson’s
Alzheimer’s Disease

“A progressive, degenerative disease that attacks certain nerve cells within the brain”

- Damage to cells done years before symptoms appear
- Sticky plaques on nerve cells prevent neuron firing (information transfer)
- Cell loss/chemical imbalance leads to decline of brain’s abilities
- No concrete cause has been determined, but age/genetics are thought to be risk factors
- Diagnosis made through elimination of other conditions/diseases
Brain scans done with Positron Emission Tomography (PET) show how Alzheimer's affects brain activity. The left image shows a normal brain, while the right is from a person with Alzheimer's. The blue and black areas in the right image indicate reduced brain activity resulting from the disease.

Images courtesy of Alzheimer's Disease Education and Referral Center, National Institute on Aging
Important Elements of Thought

Cognitive Functions
(Also called our thinking abilities, brain power, mind, etc.)

- Reasoning
- Attention
- Language
- Abstraction
- Organization
- Perception
- Memory
- Judgment
Stages of Alzheimer’s Disease

**Early Stage**
- Memory loss causes small problems
- Cognitive loss impairs thinking
- Personality changes

**Middle Stage**
- Memory loss increases
- Short & long term
- Cognitive loss increases
- Personality changes become a problem

**Late Stage**
- Memory loss becomes severe
- Cognitive losses become severe
- Personality changes
- Start of physical changes

**Final Stage**
- Memory loss is complete
- Cognition absent
- Personality absent
- Physical changes severe
## Medications and AD

<table>
<thead>
<tr>
<th>Aricept or Exelon</th>
<th>Namenda</th>
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<tbody>
<tr>
<td>FDA approved for mild, moderate and severe stages</td>
<td>FDA approved for moderate to severe stages</td>
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<tr>
<td>Prevents the breakdown of acetylcholine which plays a significant role in memory (higher levels of acetylcholine equals better brain communication)</td>
<td>Regulates the activity of glutamate in the brain (Glutamate plays a key role in memory and learning, however excess glutamate can result in disruption of nerve cell communication or nerve death)</td>
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<tr>
<td>Aricept available in tablet; Exelon in capsule, liquid or patch</td>
<td>Available in tablet and liquid form</td>
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<td>Postpones the worsening symptoms for some from six to twelve months</td>
<td>Slows rate of decline in thinking and the ability to perform ADL’s</td>
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Causes of Problem Behavior

Unfamiliar Surroundings
- Difficulty with tasks
- Inability to communicate
- May create behavior problems
- Loud noises, frantic environment
- Physical discomfort
Current AD Facts

• 5.4 million people in the U.S. have diagnosed AD
• 1 in 8 people 65 and over develop AD; 85+ is 1 in 2

• 6,000 Alaskans have Alzheimer’s OR a related dementia
• We estimate by 2020 over 11,000 Alaskans affected

• In 2010, 54,000 Alaskans were over the age of 65
  2020 projected is over 96,000 individuals over the age of 65

Fastest growing senior population in the nation – 4 times the national average
Need for services and support

• Diagnosis of ADRD can be overwhelming; families often feel lost

• Education and peer support create sense of “knowledge is power”

• Help = Strength
Services Available

- Care Coordination
- Recreational
- Transportation
- Education and Support Programs

- In-Home Supports
  - Equipment
  - Emergency devices

- Assisted Living
  - Dementia units

- Nursing Home
  - Dementia Units

Family Caregivers Provide: 35 Million hours  Economic Value: 420 Billion
Alzheimer’s Resource of Alaska

- Programs for individuals with memory loss or ADRD
- Programs for family caregivers
- Programs for professionals
- Programs for the General Public
How to Contact Us…

- In person  565 University Ave., St#2
  Fairbanks, AK 99709
  9:00am – 5:00pm Monday-Friday

- By telephone  907-452-2277
- toll free in AK  1-800-478-1080
- E-mail  jadams@alzalaska.org
- On the web  www.alzalaska.org

- Offices also located in Palmer, Juneau, Anchorage