Understanding Dementia

- What is dementia
- Alzheimer’s disease and dementia
- Alzheimer’s and the brain
- Stages of Alzheimer’s disease

The Rising Tide of Dementia

- 480,600 people in Canada have Alzheimer’s or a related dementia (1.5% of the population)
- Someone in Canada develops dementia every five minutes
- More than 70,000 people in B.C. are living with a form of dementia
- 15,150 new cases each year in B.C.

Dementia

Cause: organic disease or a disorder of the brain

Symptoms:
- decline in cognitive abilities
- learning difficulties
- impaired judgement
- memory loss
- disorientation
- changes in personality and moods
What is Dementia?

CAUSES
- Alzheimer’s Disease
- Vascular (Multi-infarct) Dementia
- Lewy Body Disease
- Frontotemporal dementia

SYMPTOMS
- Death of brain cells & impaired function of remaining cells
- A cluster of symptoms related to a decline in cognitive abilities

BRAIN DAMAGE

DEMEN'TIA

Irreversible Dementias
- Frontotemporal dementia
- Parkinson’s disease
- Creutzfeldt-Jakob disease
- Huntington disease
- AIDS-related dementia
- Korsakoff’s syndrome
- Severe brain damage

Acute Reversible Dementias
- Drug interactions
- Stress
- Infection/fever
- Tumors
- Depression
- B-12 deficiency
- Dehydration
- Potassium deficiency
The Brain in Action

PET scan (Positron Emission Tomography)
Orange = still active and fully functioning
Yellow = deterioration
Blue = brain matter that has already died

Brain Delays

The Stages of Alzheimer’s Disease

Early Stage
Mild dementia

Middle Stage
Moderate dementia

Late Stage
Severe dementia
Early Stage

**Limbic System**
- memory (short term)
- organizing thoughts
- learning
- control of sexuality

It is the first part of the brain affected by Alzheimer's disease.

Early Stage

**Temporal Lobe**
- controls thinking
- learning new things
- language
- reasoning/decision making
- music/rhythm
- help with memory

Early Stage

<table>
<thead>
<tr>
<th>MENTAL</th>
<th>EMOTIONAL</th>
<th>BEHAVIOUR</th>
<th>PHYSICAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forgetfulness</td>
<td>Mood shifts</td>
<td>Passiveness</td>
<td>Mild coordination problems</td>
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<tr>
<td>Difficulty learning new things</td>
<td>Depression</td>
<td>Withdrawal</td>
<td></td>
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<tr>
<td>Difficulty following conversation</td>
<td>Loss of interest in social activities</td>
<td>Restlessness</td>
<td></td>
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<tr>
<td>Short attention span</td>
<td>Orientation difficulties</td>
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<tr>
<td>Communication difficulties</td>
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Alzheimer Society

BRITISH COLUMBIA
Middle Stage

Frontal Lobe
- personality
- mood
- behaviour

Parietal Lobe
- comprehension of words
- sequencing
- feeling pain, touch and heat

Middle Stage

Occipital Lobe
- vision
- interpretation of movement

Cerebellum
- coordination of movements
- feedback on body position

Middle Stage

MENTAL
- Intensified memory problems
- Difficulty recognizing familiar things
- Language difficulties
- Disorientation with time and place
- Delusions

EMOTIONAL
- Personality changes
- Anxiety
- Suspiciousness
- Mood shifts
- Frustration
- Sadness/depression
- Social withdrawal

BEHAVIOUR
- Inability to concentrate
- Restlessness - pacing, wandering
- Uninhibited behaviour
- Repetitive behaviour
- Aggression
- Passiveness

PHYSICAL
- Need help performing daily tasks
- Disrupted sleep patterns
- Appetite fluctuation
- Visual-spatial problems
Late Stage

Pons
- controls breathing

Medulla
- involuntary body functions

Spinal Cord
- sends messages from the brain to the body, and receives messages from the brain

Late Stage

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<thead>
<tr>
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<th>EMOTIONAL</th>
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<th>PHYSICAL</th>
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<tbody>
<tr>
<td>Loss of ability to remember</td>
<td>Possible complete withdrawal</td>
<td>Non-verbal methods of communication</td>
<td>Sleeps longer</td>
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<tr>
<td>Problem processing information</td>
<td></td>
<td></td>
<td>Difficulty eating and swallowing</td>
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<tr>
<td>Severe speaking difficulties</td>
<td></td>
<td></td>
<td>Unable to perform self-care</td>
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<tr>
<td>Severe disorientation</td>
<td></td>
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<td>May lose weight</td>
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</tbody>
</table>

Late Stage

<table>
<thead>
<tr>
<th>STAGES</th>
<th>MENTAL</th>
<th>EMOTIONAL</th>
<th>BEHAVIOUR</th>
<th>PHYSICAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>EARLY</td>
<td>forgetfulness, difficulty learning new things</td>
<td>moods shift easily, depression</td>
<td>passiveness, withdrawal, restlessness</td>
<td>mid coordination problems</td>
</tr>
<tr>
<td>MIDDLE</td>
<td>intensified memory problems, difficulty recognizing familiar things</td>
<td>personality changes, anxiety, suspicion</td>
<td>inability to concentrate, restlessness, uninhibited behaviour</td>
<td>assistance with daily tasks needed</td>
</tr>
<tr>
<td>LATE</td>
<td>loss of ability to remember or process information</td>
<td>possible complete withdrawal</td>
<td>using non-verbal communication e.g. eye contact, crying, groaning</td>
<td>sleeps longer, difficulty eating and swallowing, unable to perform self-care, may lose weight</td>
</tr>
</tbody>
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Medications

- Cholinesterase Inhibitors
  - Aricept
  - Exelon
  - Reminyl

- NMDA Receptor Antagonists
  - Ebixa

- In the pipeline
  A number of medications in clinical trials

Programs & Services

- Alzheimer Resource Centres
  for information, education, support and referrals

- Dementia Helpline
  1-800-936-6033

- Information Bulletins
  - In Touch for caregivers
  - Insight for people with dementia

- Education
  - Healthy Brain
  - Life After Diagnosis
  - Shaping the Journey
  - Dementia Education Series & Workshops
  - Tele-Workshops

- Support Groups
  - for people with early symptoms
  - for caregivers

Provincial Office (to order the handouts)
1- 800- 667- 3742 or 604-681-6530

Website
www.alzheimerbc.org

Dementia Helpline
1- 800- 936- 6033
604-681- 8651