

How to Help Someone with Memory Loss

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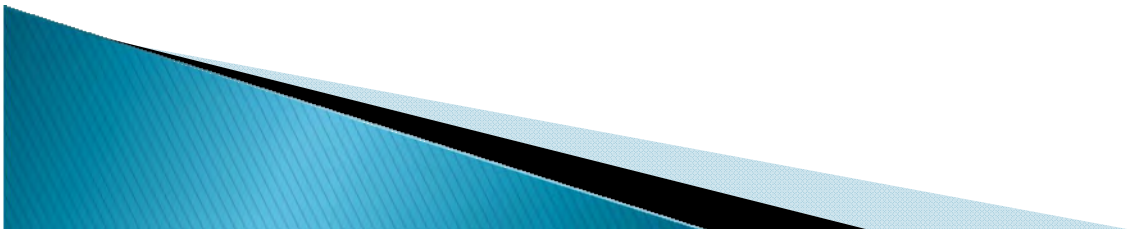
Inova Neuroscience Program Lead
Nurse

Inova Memory Center



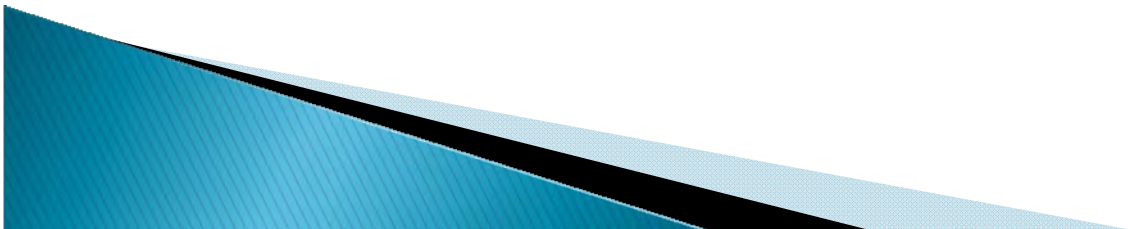
Outline

- ▶ Types of dementia
 - Alzheimer's Disease
 - Vascular Dementia
 - Parkinsonian Dementia
- ▶ The Inova Memory Center



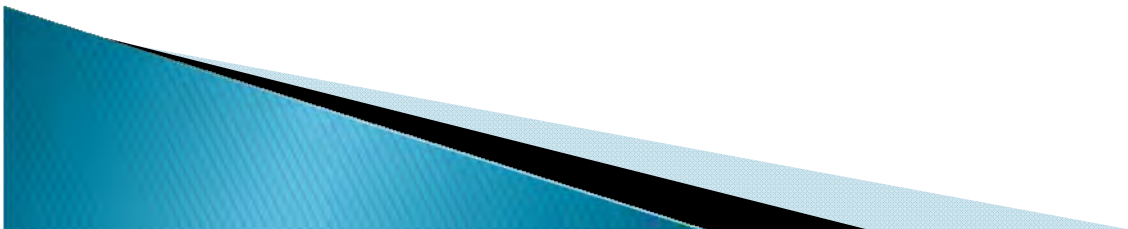
Why the Memory Center

- ▶ Standardized evaluation and management according to American Academy of Neurology guidelines
 - Consensus on other aspects of care
 - Knowledge and understanding of new developments in the field
- ▶ Create a database that can be used for clinical research



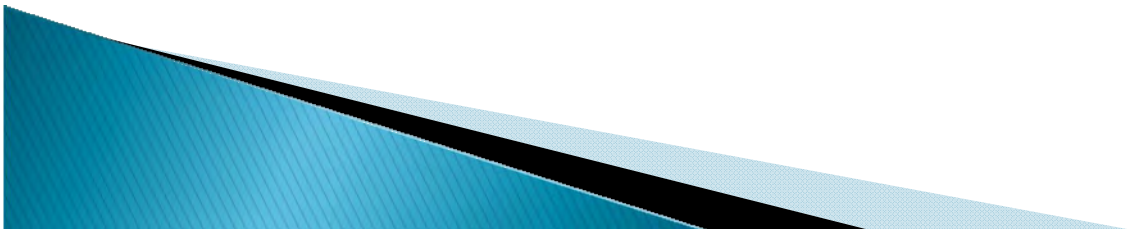
Cognitive Domains

- ▶ Registration
- ▶ Recall (memory)
- ▶ Visuospatial
- ▶ Language
- ▶ Attention
- ▶ Executive Functioning



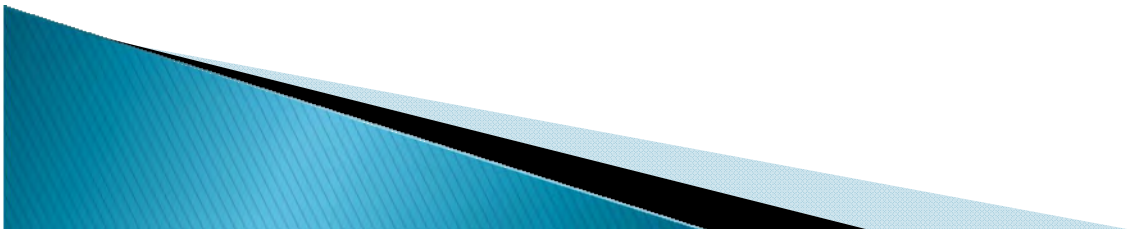
Registration

- ▶ The ability to encode information for future use
- ▶ The information can come into the brain through any of the five senses
- ▶ The part of the brain that encodes the memory is not the same as the part of the brain that stores it



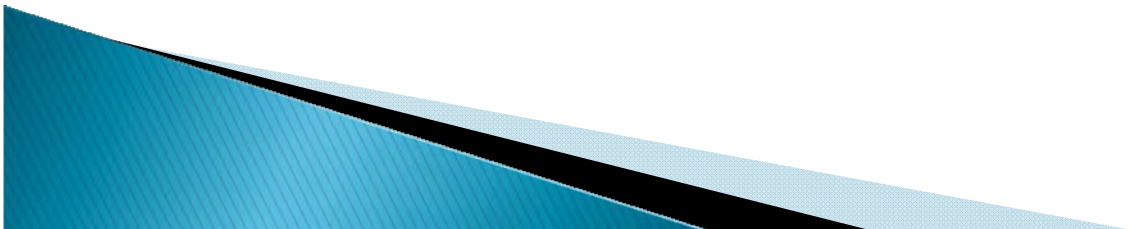
Recall (Memory)

- ▶ Verbal Recall
 - Immediate (attention)
 - Tested with repetition
 - Short-term (working memory)
 - Phone number
 - Long-term
 - Recall at five minutes



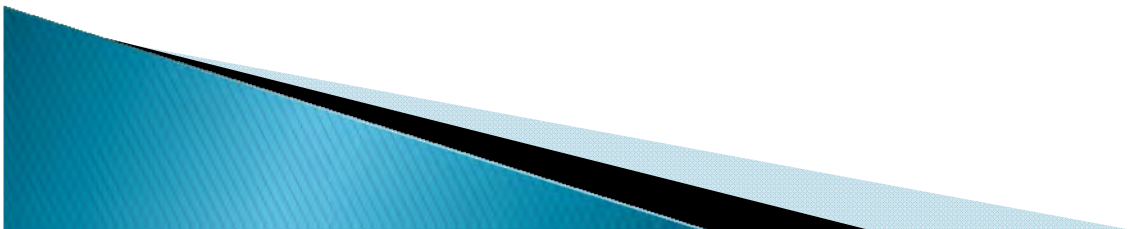
Visuospatial

- ▶ The ability to use knowledge of where things are in space
- ▶ Must have visual recall but then also be able to apply it to a situation
 - Walking, driving
- ▶ In dementia manifests as getting lost while driving or walking in neighborhood



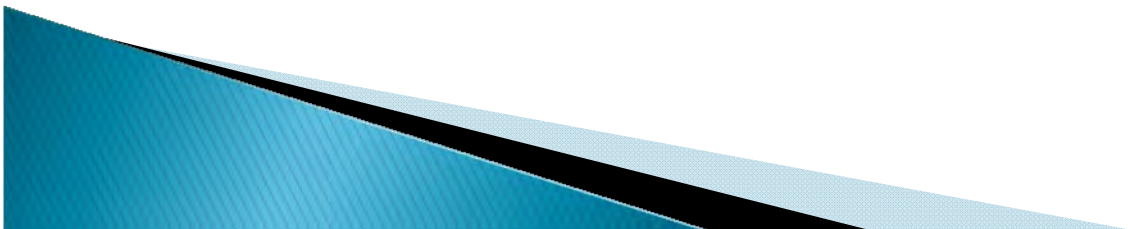
Language

- ▶ Receptive function
 - Understanding what is heard, read or seen
- ▶ Expressive function
 - Being able to communicate by speaking, writing, or acting



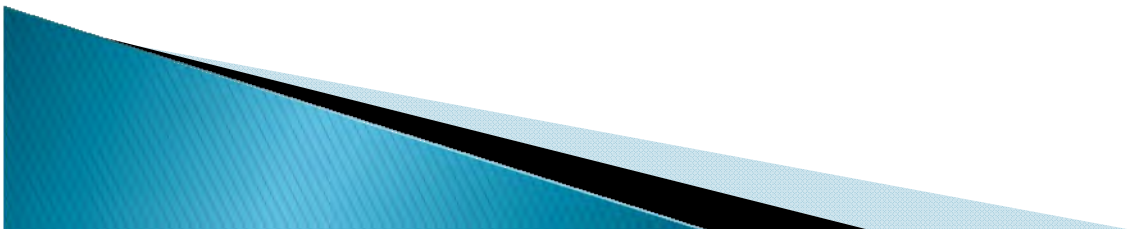
Language

- ▶ Naming
 - Proper names: grandchildren, object names, generic names
 - Word substitution
- ▶ Repetition
- ▶ Simple and complex commands
- ▶ Category fluency



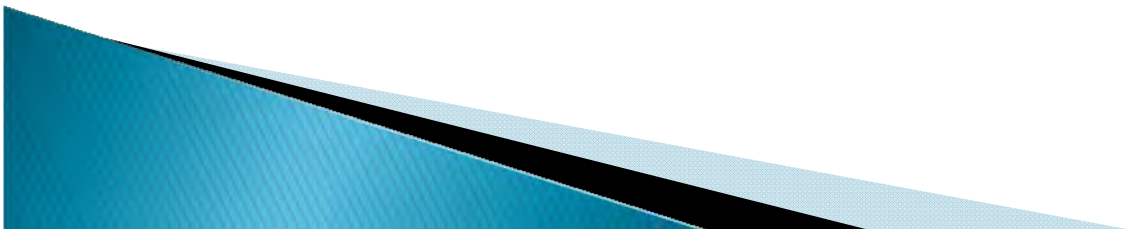
Attention

- ▶ Sustained effort to accomplish a task
- ▶ Ability to manipulate information in your head
 - One step beyond rote memory and automatic responses
 - Something you have to think about
- ▶ Ability to pick things out of a list or put something in reverse order



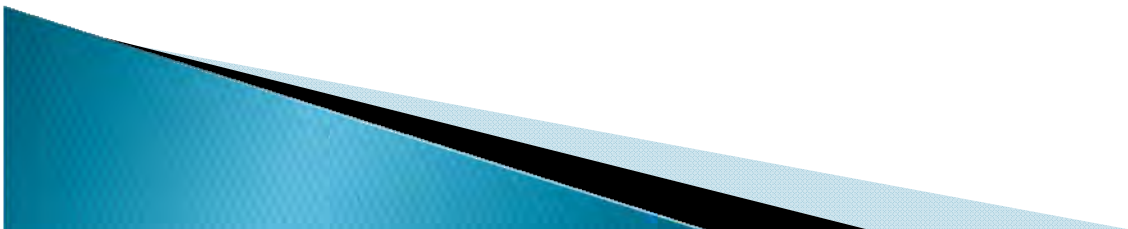
Executive Function

- ▶ Planning
- ▶ Things that involve more than one step
 - How to prepare a meal
 - How to balance a checkbook
- ▶ Not just automatic activities



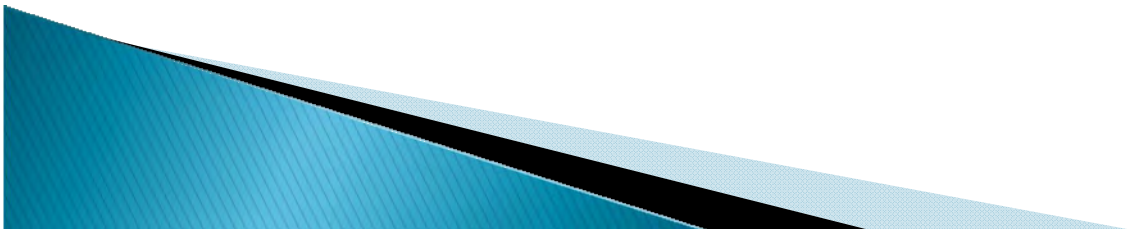
Dementia versus Normal Aging

- ▶ Dementia must be:
 - A decline from premorbid functioning beyond that expected for age and education matched controls
 - Significantly impact lifestyle and function, e.g. ADL's



Dementia versus Normal Aging

- ▶ Normal aging involves:
 - Psychomotor slowing: decrease in speed of mental processing
 - Slower retrieval of information
 - Lower rate of learning
 - Improved vocabulary
 - “Crystallized intelligence”: more practical and effective strategies in real world tasks



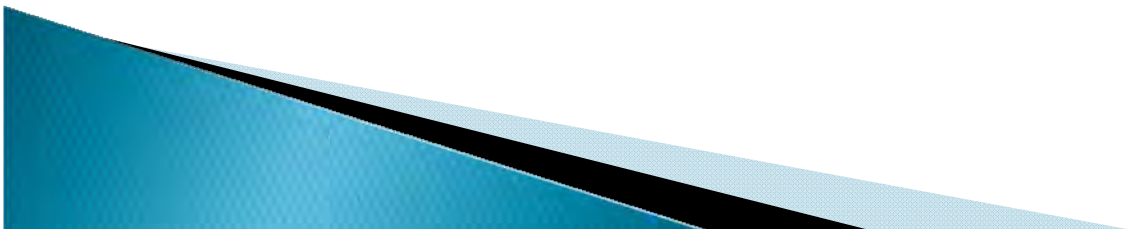
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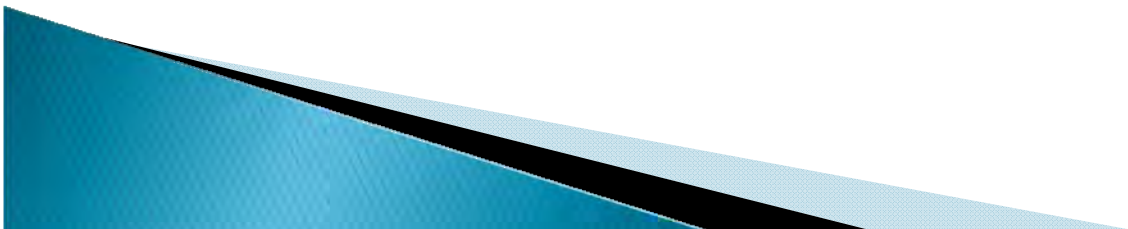
Classification of Dementias

- ▶ Type of dementia is defined by the cognitive domain that it affects first and worst:
 - Memory
 - Language
 - Attention and executive function
 - Visuospatial
 - Behavior



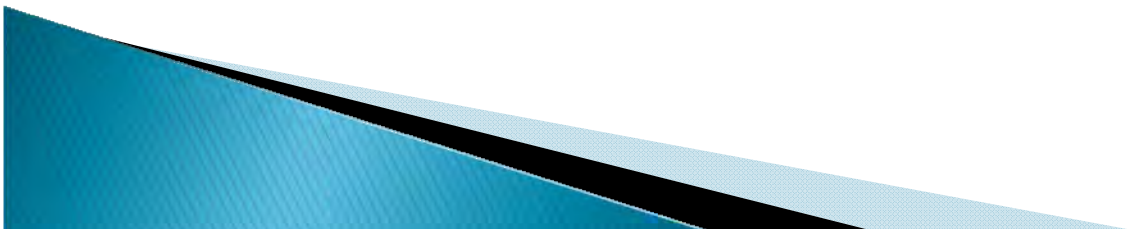
Classification of Dementias

- ▶ Symptoms depend on the part of the brain that is damaged
 - e.g. Alzheimer's Disease is temporal lobes, giving mostly memory problems
- ▶ Pathology of the damage does NOT determine the symptoms, but some pathologies are more associated with certain diseases



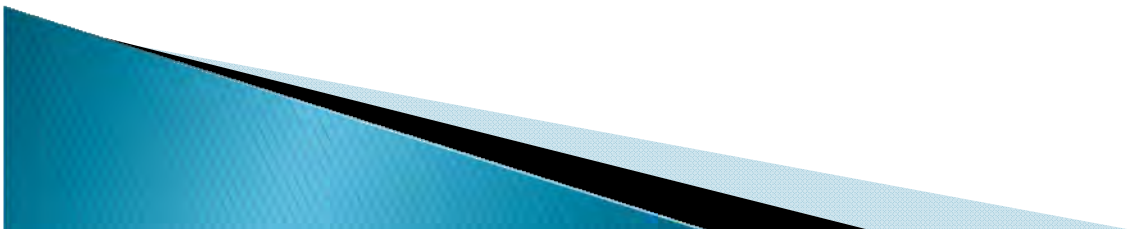
The Major Dementias

- ▶ Alzheimer's Disease: 60% overall (80% of late onset dementias)
- ▶ Vascular Dementia: 20%
- ▶ Parkinson's related dementias: 10%
 - Parkinson's Disease Dementia
 - Lewy Body Dementia
- ▶ Frontotemporal Dementia: < 5%



Mild Cognitive Impairment

- ▶ Cognitive decline beyond what is expected for age but without meeting criteria for dementia
- ▶ Different types, depending on cognitive domain
- ▶ Most are amnesic
- ▶ Doesn't interfere with lifestyle



Alzheimer's Disease: Symptoms

- ▶ Memory:
 - Semantic memory: Word meanings, categories, classes
 - Naming is impaired early
 - Episodic memory: Events, conversations, appointments



Alzheimer's Disease: Symptoms

- ▶ Executive Function:
 - Trouble organizing tasks
 - Doesn't finish tasks
- ▶ Attention relatively preserved until later in disease



Alzheimer's Disease: Symptoms

- ▶ **Visuospatial:**
 - Trouble with spatial orientation
 - Gets lost in familiar surroundings
- ▶ **Neuropsychiatric:**
 - Depression
 - Apathy
 - Delusions
 - Visual hallucinations
 - Agitation



Alzheimer's Disease: Pathology

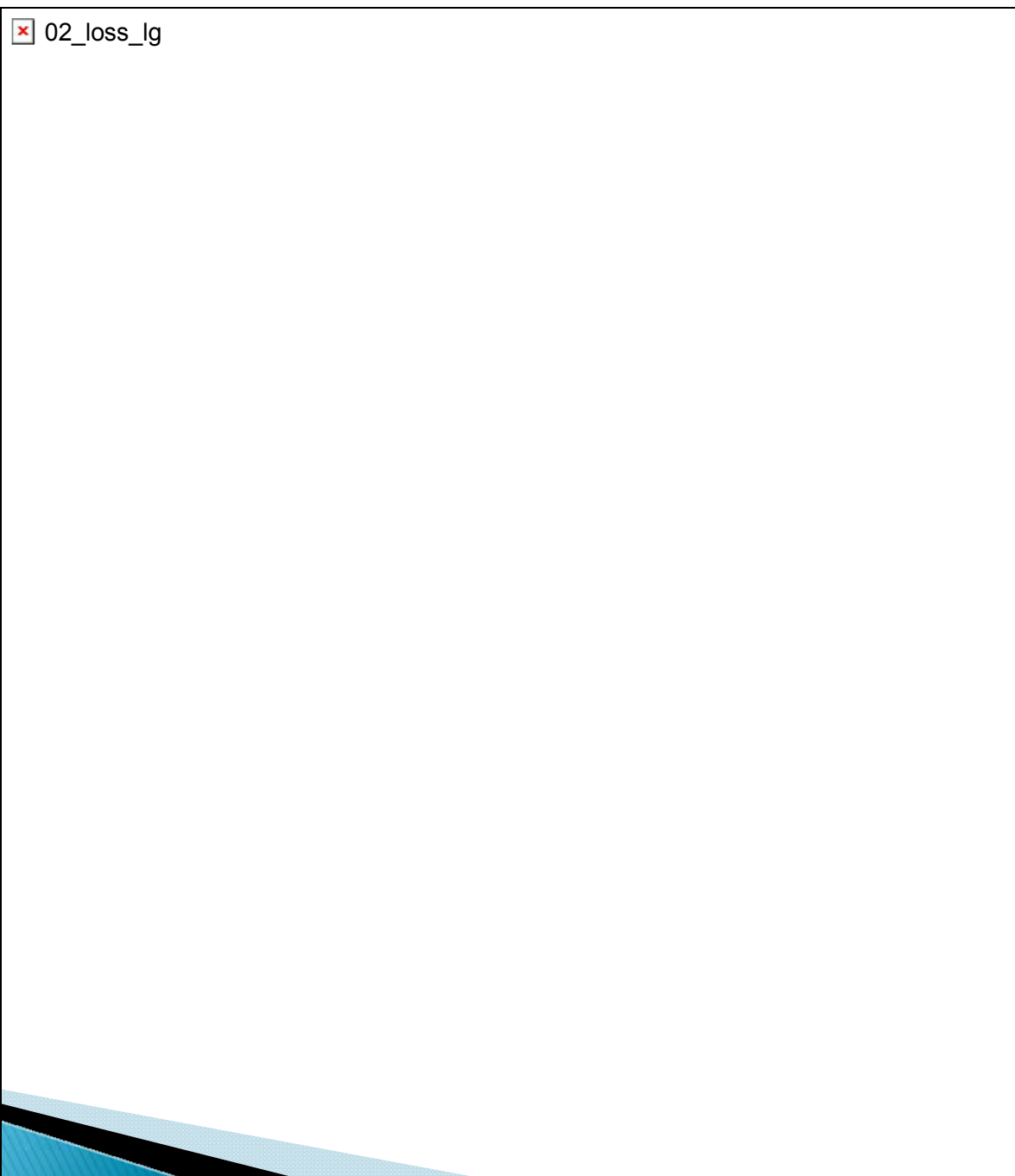
- ▶ Nerve cells in brain cannot signal to each other properly
- ▶ Plaques
- ▶ Tangles
- ▶ Cell loss (atrophy)

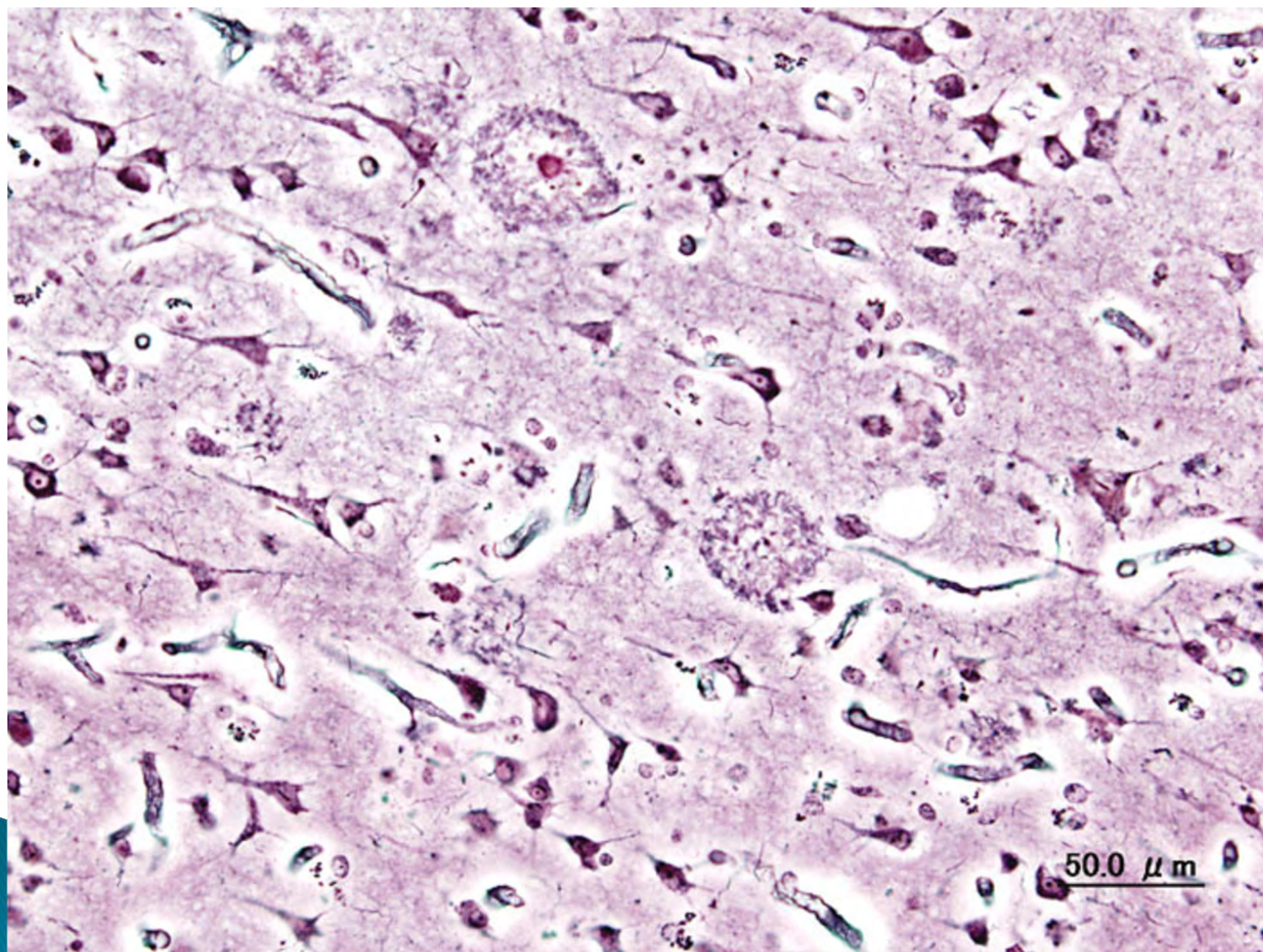


Alzheimer's Disease Pathology: Plaques

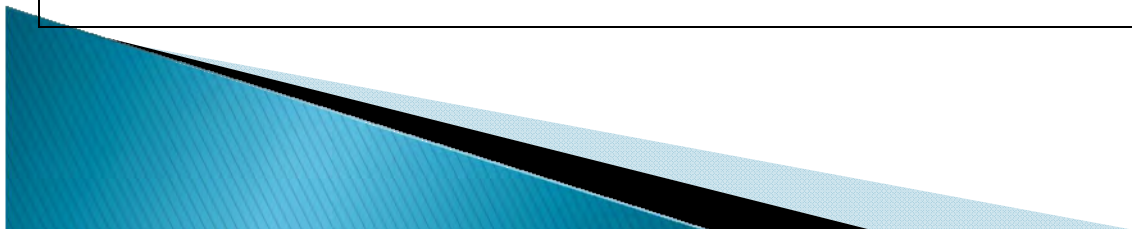
- ▶ Interrupted communication between nerve cells
- ▶ Made of Beta Amyloid
 - Protein that forms clumps between cells, disrupting synaptic transmission



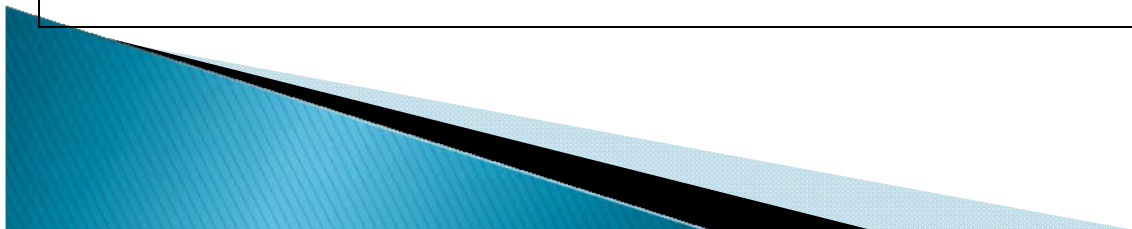




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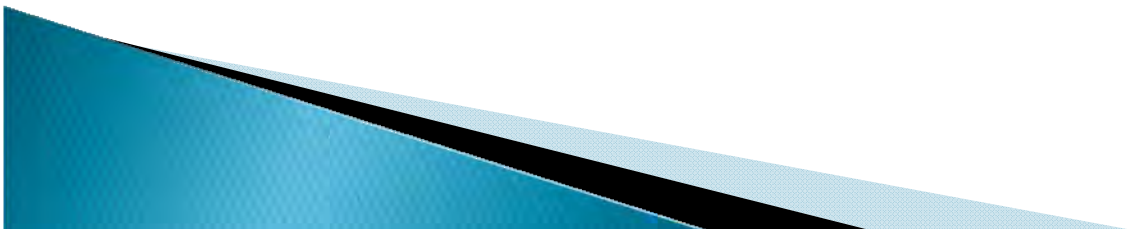


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Alzheimer's Disease: Treatment

- ▶ Pharmacological:
 - Cholinesterase Inhibitors:
 - Exelon (Rivastigmine)
 - Aricept (Donepezil)
 - Razadyne (Galantamine)
 - NMDA (glutamate) antagonist
 - Namenda (Memantine)



Alzheimer's Disease: Treatment

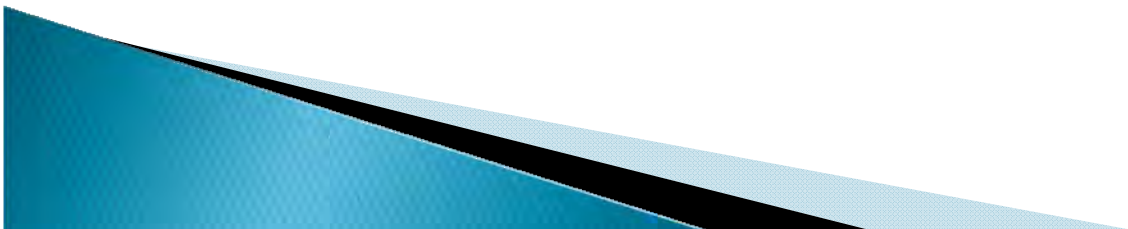
▶ Nutraceuticals

- Omega 3 fatty acids (DHA) 1 000 mg daily
- NSAIDS – ASA 81 mg qd
- Vitamin E – probably not helpful
- Ginko Biloba – definitely not helpful
- Vitamin B complex



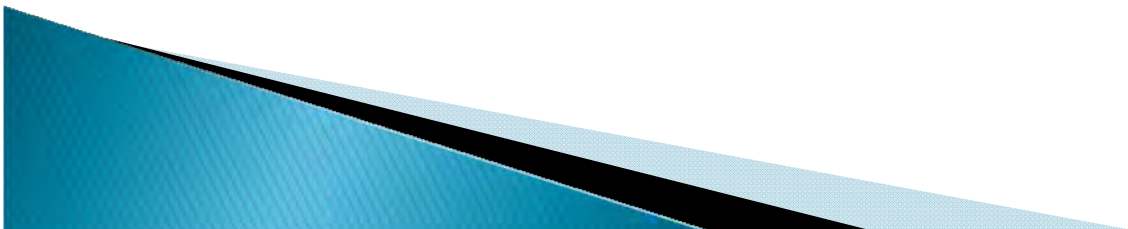
Alzheimer's Disease: Treatment

- ▶ Lifestyle:
 - Cognitive training
 - Effect of education level
 - Physical activity
 - Social activity and interactions



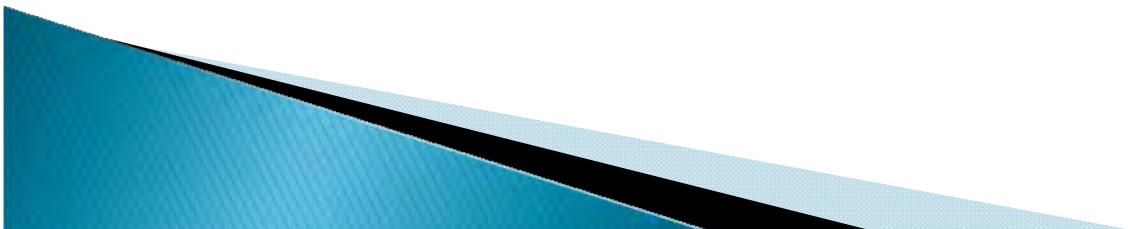
Vascular Dementia

- ▶ Dementia caused by stroke
- ▶ Can affect any cognitive domain
- ▶ Does not have to involve memory
- ▶ Slow thinking



Vascular Dementia

- ▶ Usually distinct or abrupt onset
- ▶ May be cumulative effect of multiple small strokes
 - “small vessel disease” (microvascular)
 - Subcortical white matter ischemic disease



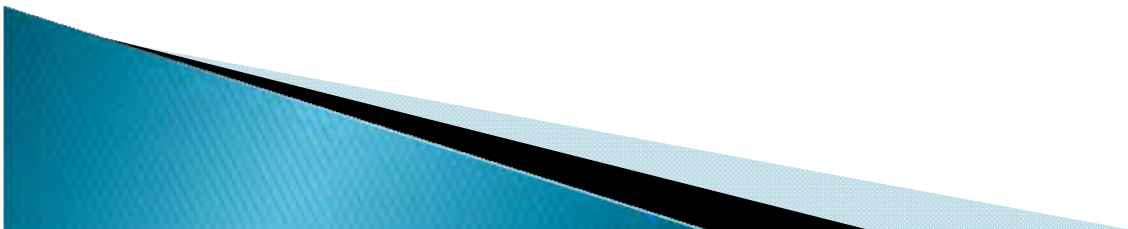
Vascular Dementia Treatment

- ▶ Cholinesterase inhibitors (Aricept, Razadyne, Exelon)
 - Treatment effect about as good as with Alzheimer's disease
- ▶ Antihypertensive treatment, especially with ACE inhibitors
 - May reduce incidence by 6–7%



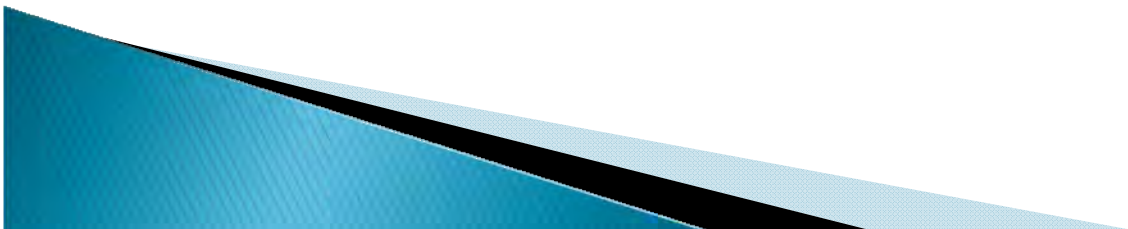
Parkinsonian Dementias

- ▶ About 5–10% of PD patients will have dementia at some point
- ▶ Risk of dementia about 3x greater in PD than general population
- ▶ Depression is common in PD with or without dementia
- ▶ PD is more than just a motor disease



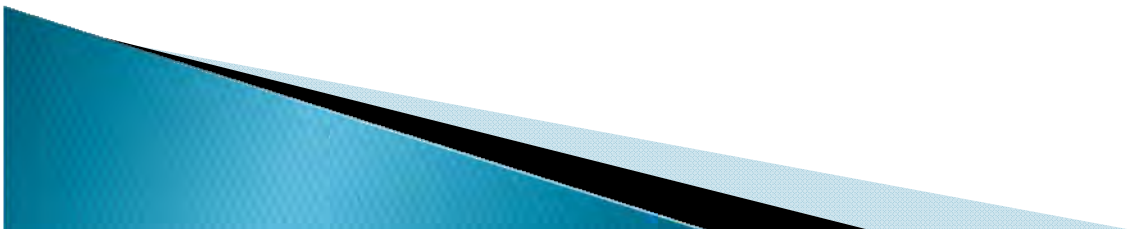
Parkinsonian Dementias

- ▶ Parkinson's Disease Dementia:
 - Develops more than one year after onset of motor symptoms of PD (usually many years later)
- ▶ Dementia with Lewy Bodies (DLB)
 - Develops before onset of motor symptoms or within one year
 - Can happen before Parkinson's Disease Motor symptoms are evident



Parkinson's Disease Dementia

- ▶ Symptoms and signs:
 - Slow, progressive course in the setting of well established PD of more than a year's duration
 - Can involve deficits of attention, memory, language, and executive function
 - Behavioral symptoms can include depression, hallucinations and delusions



Lewy Body Dementia

Core Features

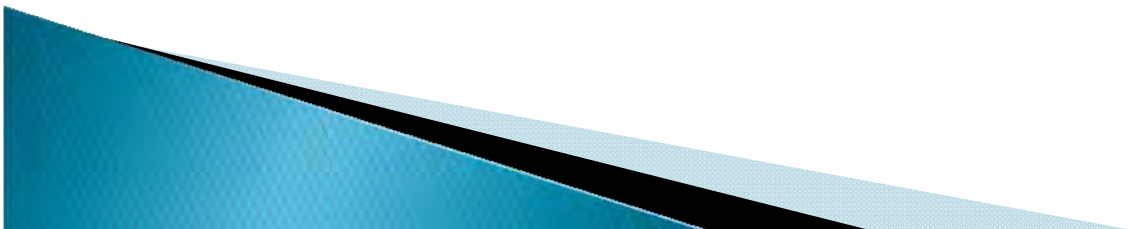
- ▶ Fluctuation of cognition and alertness
 - Sometimes near normal
 - Other times confused, sleepy, forgetful
 - Periods may last hours to days
- ▶ Visual hallucinations
 - Usually well formed: people, animals, insects
 - Often realize they are not real



Lewy Body Dementia

Other features

- ▶ Delusions, often paranoid
- ▶ Depression is common
- ▶ Executive dysfunction
 - Trouble with planning and executing tasks
- ▶ Memory impairment: may develop later



Lewy Body Dementia Treatment

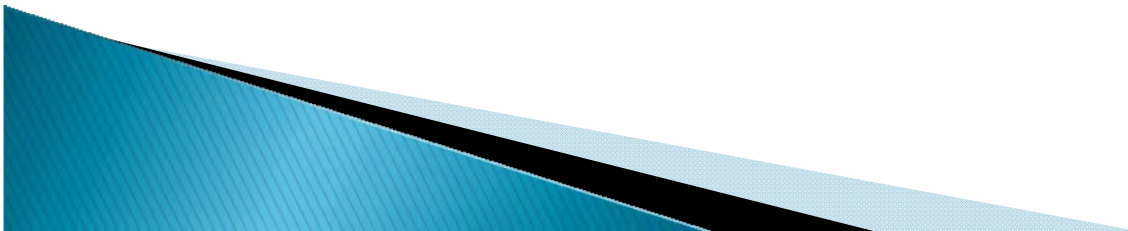
- ▶ May have significant response to dementia medicines: Aricept, Razadyne, Exelon
- ▶ Atypical antipsychotics for behavior problems (Seroquel)



The Inova Memory Center

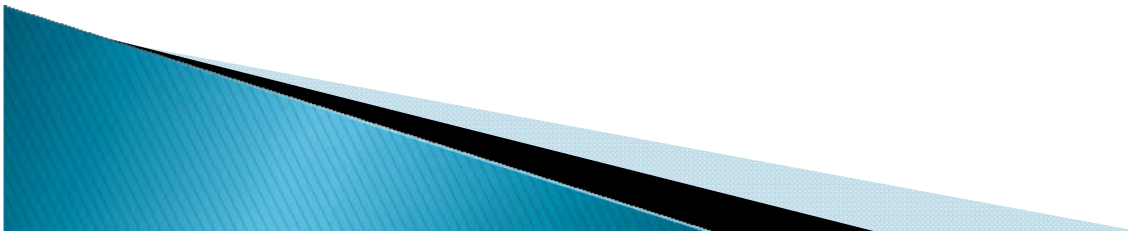
Who is it?

- ▶ Inova and non Inova employed physicians, psychiatrists, neurologists, researchers, neuropsychologists, social workers and nurses.



Goals of the Inova Memory Center

- ▶ Facilitate cooperation among the broad range of clinicians and health professionals involved in the care of dementia patients
- ▶ Centralize services into one entity and streamline sharing of clinical information
- ▶ Assure high level of care



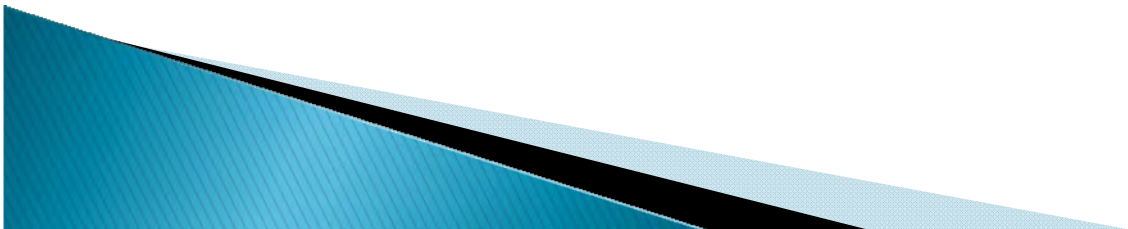
Inova Memory Center: Current Structure

- ▶ Patient makes an appointment to see a clinician based on geographic and specialty needs
- ▶ Patient is evaluated and referred for appropriate testing or other needed ancillary services
- ▶ Can be given opportunity to participate in a research study



Is this the right place to call?

- ▶ My mom has been having some problems for a while but it seems worse now.
- ▶ I can't leave the house when I did for an hour and then got my hair cut without planning it things were really bad when I returned. Now I don't dare leave.
- ▶ I think I am losing my memory, I am having trouble remembering things



What happens

- ▶ Nurse Lead takes call and does screening of what patient needs are
 - Do you have a diagnoses?
 - Are you worried the diagnoses is wrong?
 - Do you need help in the home?
 - Do you have support for yourself?
 - Do you know where to find information that is factual?
 - Do you want to see a physician?
 - Do you need help with issues at home from a social worker?
 - Elder Link/ Alzheimer's Association/

