

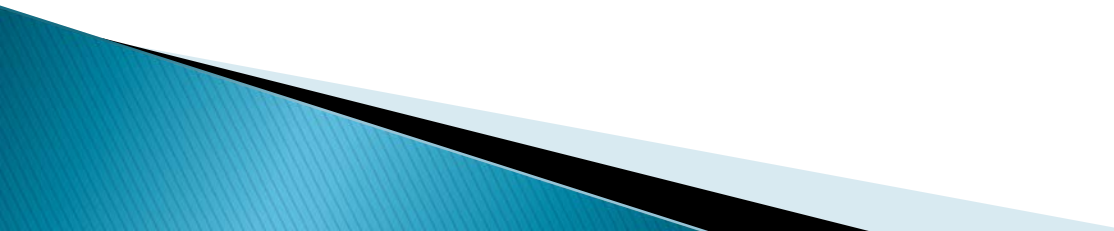
# Dementia

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# Dementia

- ▶ Umbrella term used to describe various conditions which cause brain cell death.
- ▶ This leads to progressive deterioration in memory and ability to carry out daily living skills.

# Alzheimers Dementia: most common.

- ▶ Vascular Dementia.
  - ▶ Fronto-temporal Dementia.
  - ▶ Lewy Body Dementia.
  - ▶ Mixed Dementia.
  - ▶ Parkinsons /Huntingtons /CJD.
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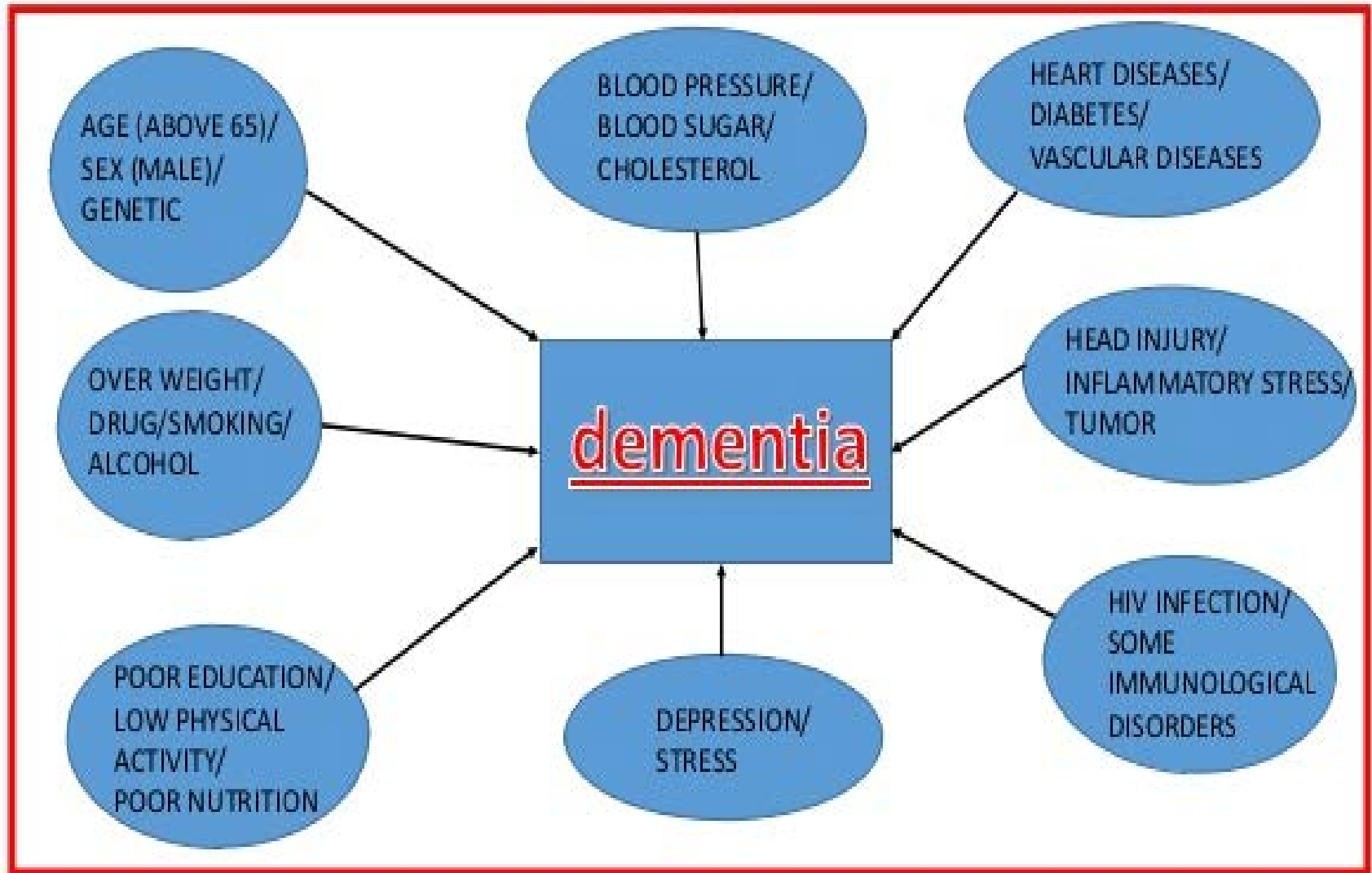
## EPIDEMIOLOGY

- ~ 5 to 8 % at age 65 to 70
- ~ 15 to 20 % at age 75 to 80
- up to 40 to 50 % over age 85

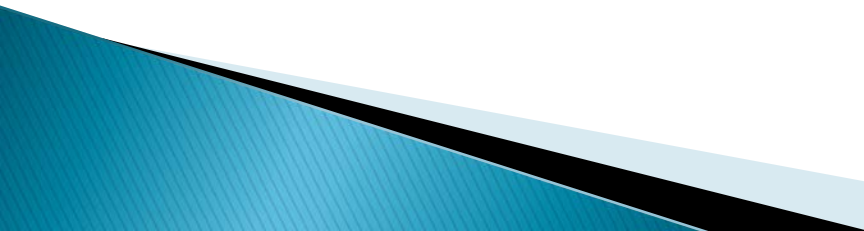
- Alzheimer's disease is most common dementia → 50-75%
- Dementia with Lewy bodies → 15 to 35 %
- Vascular dementia → 5 – 20 %




# RISK FACTORS FOR DEMENTIA

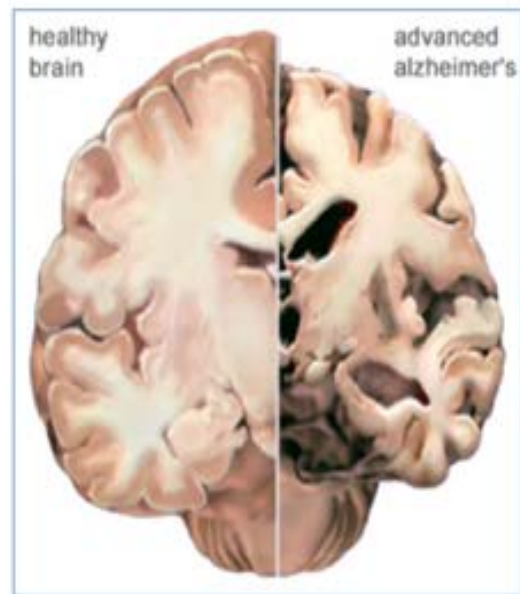
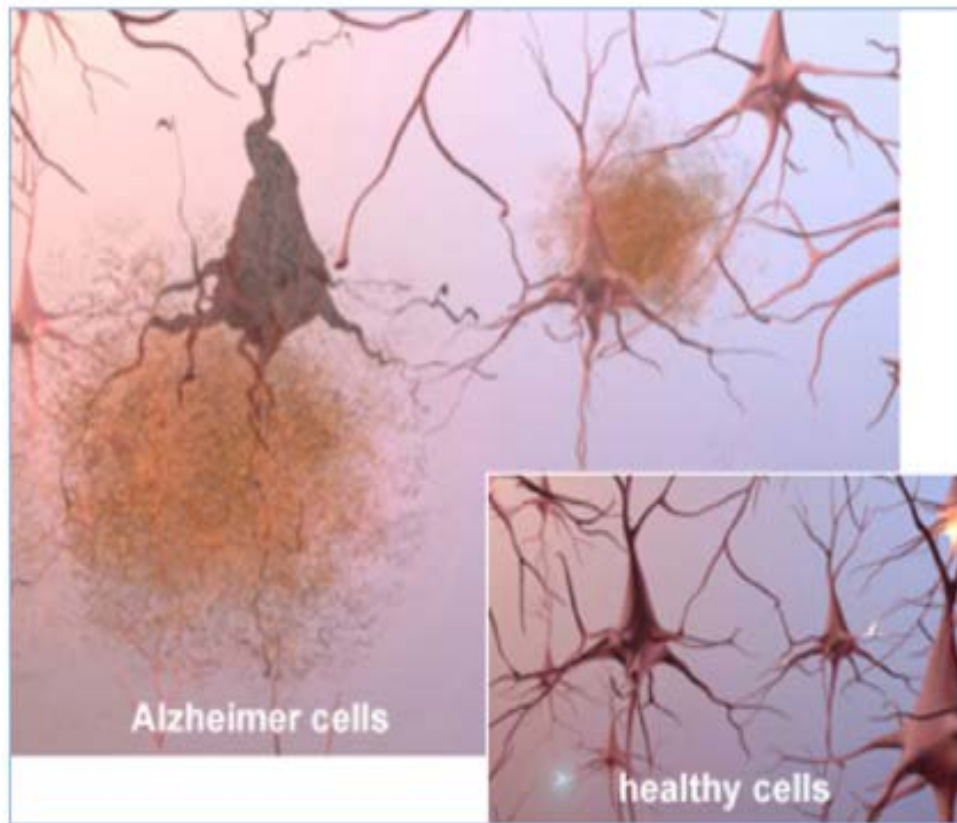


# Common symptoms

- ▶ Memory loss that disrupts daily life.
  - ▶ Difficulty in completing familiar tasks.
  - ▶ Problems with language.
  - ▶ Decreased or poor judgement.
  - ▶ Difficulty in planning or solving problems.
  - ▶ Misplacing things regularly.
  - ▶ Withdrawal from work or social activities.
  - ▶ Loss of interest in starting projects or doing things.
  - ▶ Change in mood and behaviour.
  - ▶ Personality changes.
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# Alzheimers Dementia

- ▶ First described in 1906 by a German neuroscientist (Alzheimer).
  - ▶ Build up of protein in the brain.
  - ▶ Plaques.
  - ▶ Deposits of Beta Amyloid protein which accumulate in spaces between nerve cells.
  - ▶ Tangles – deposits of protein (Tau) inside nerve cells.
  - ▶ Neurones are lost and there is atrophy of the brain.
  - ▶ Presentation can often relate to the areas in the brain where there is the most neurone loss.
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**Frontal lobe**

Executive functions, thinking, planning, organising and problem solving, emotions and behavioural control, personality

**Motor cortex**

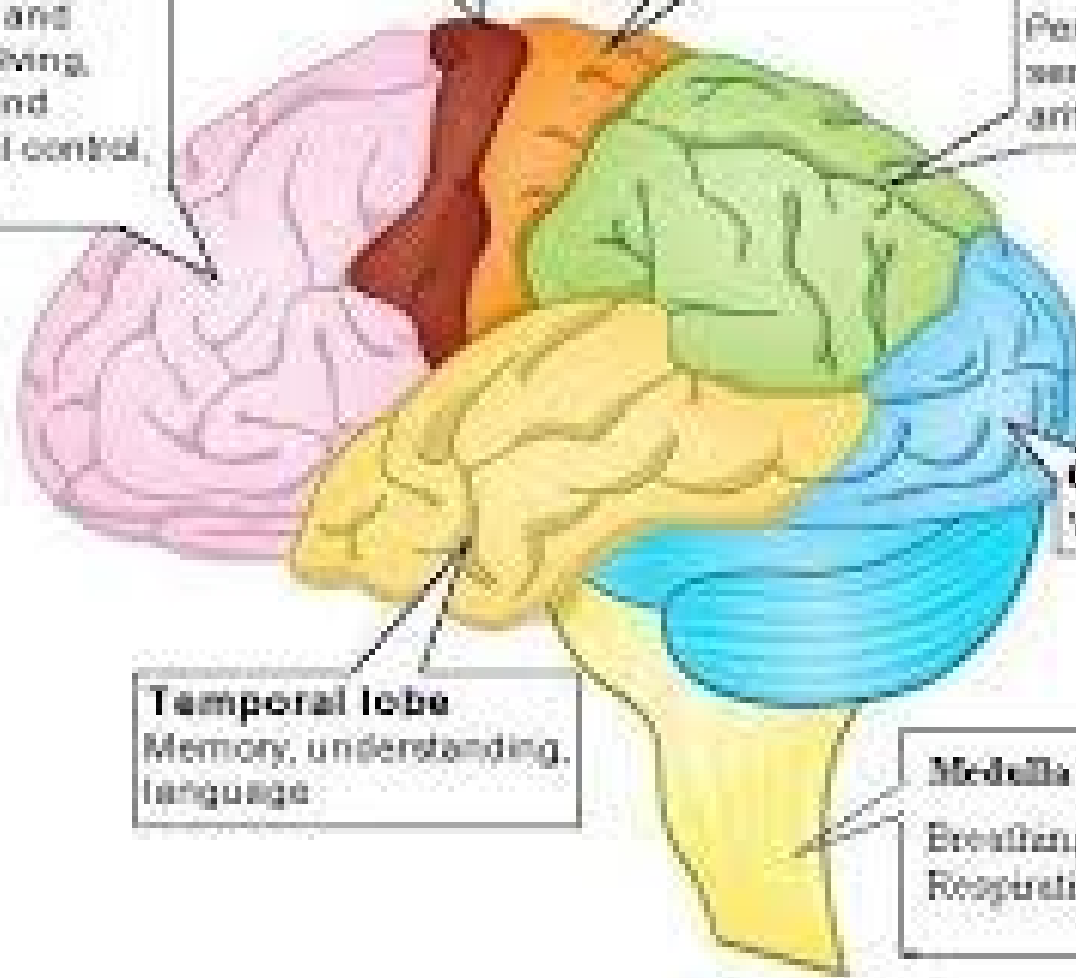
Movement

**Sensory cortex**

Sensations

**Parietal lobe**

Perception, making sense of the world, arithmetic, spelling



**Occipital lobe**

Vision

**Temporal lobe**

Memory, understanding, language

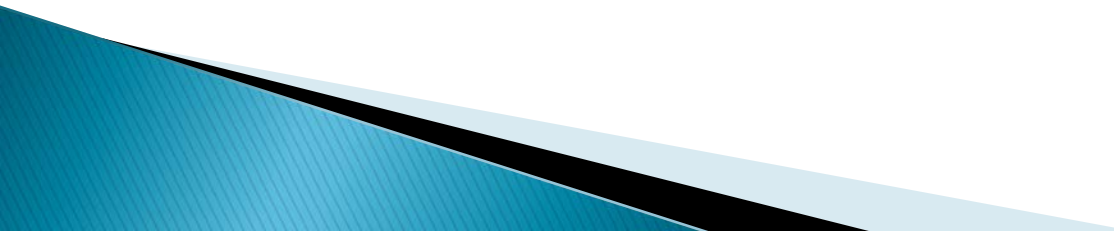
**Medulla Oblongata**

Breathing, Heart, Respiration,

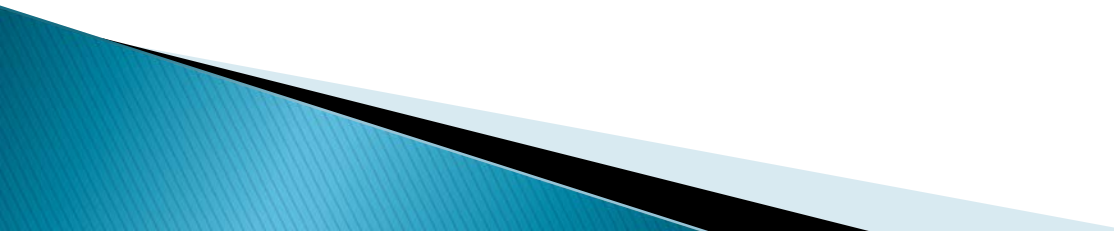
# Alzheimers

- ▶ The earliest Alzheimers changes in the brain may begin 20 or more years before the diagnosis.


# Effects of Alzheimers

- ▶ Alzheimers affects people in different ways but the most common symptom pattern begins with short term memory loss (disruption of brain cell function begins in regions involved in new memories.)
  - ▶ Significant impairment in social or occupational functioning and represents a significant decline from previous level of function.
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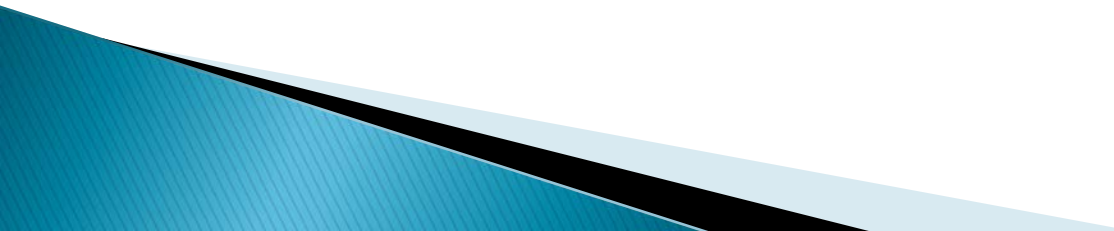
# Early stage

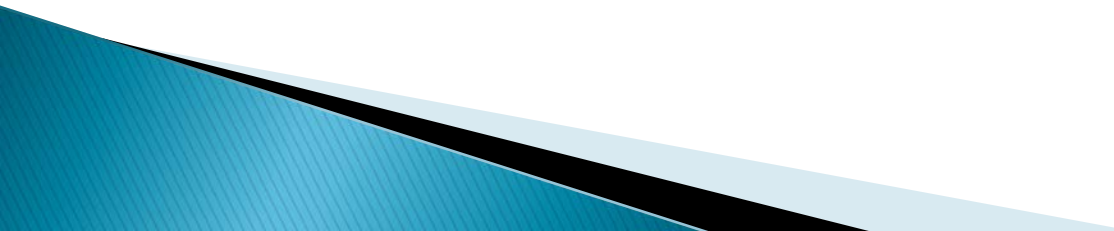
- ▶ Early stage 2 to 4 years.
  - ▶ Memory loss particularly of recent conversations and events.
  - ▶ Repeated questions, some problems expressing and understanding language.
  - ▶ Need reminder for daily activities
  - ▶ Depression/apathy.
  - ▶ Change in personality.
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# Second stage

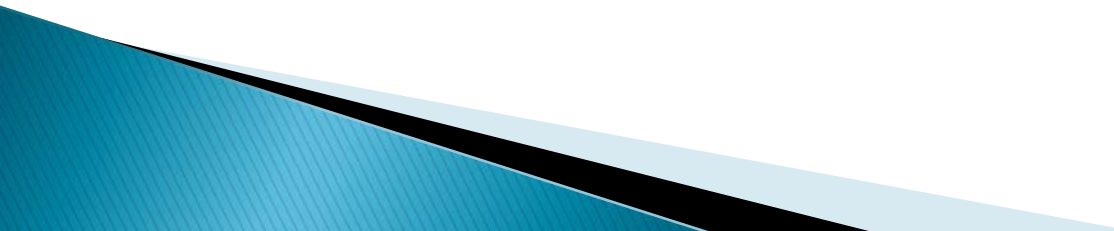
- ▶ Second stage – middle/moderate: 2 to 10 years.
  - ▶ No longer able to cover up problems.
  - ▶ Rambling speech.
  - ▶ Can become lost in familiar settings.
  - ▶ Sleep disturbance.
  - ▶ Mood and behavioural issues.
  - ▶ Up to 80% of people can exhibit emotional and behavioural problems which are aggravated by stress and change.
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# Assessment and diagnosis

- ▶ Full history
  - ▶ Identify this is a decline from previous level of functioning
  - ▶ Onset/progression
  - ▶ Impact on activities of daily living
  - ▶ Behavioural disturbance
  - ▶ Sleep problems
  - ▶ Vascular risk factors
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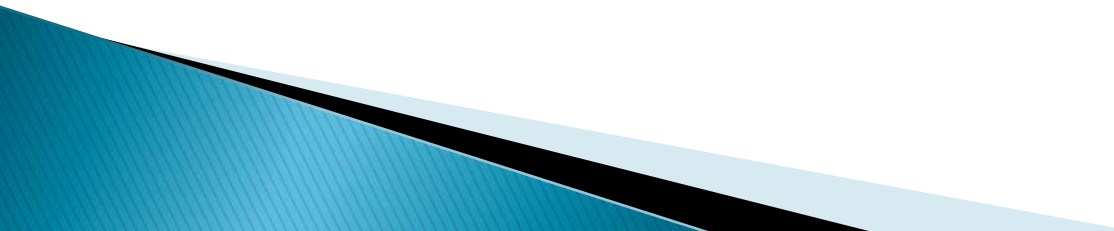
- ▶ Physical issues such as stroke or Parkinsons
  - ▶ Blood investigations
  - ▶ Brain imaging
  - ▶ Cognitive assessment
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# Management

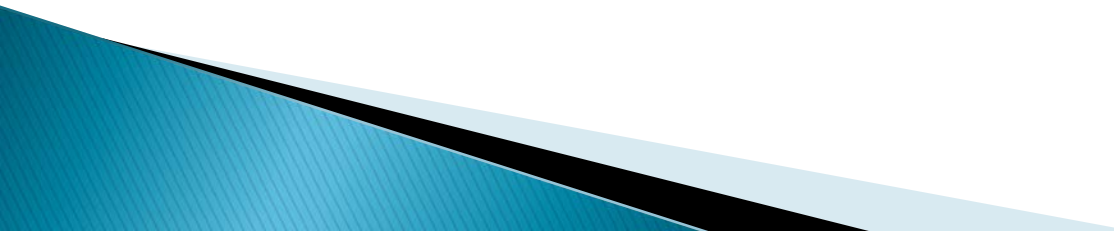
- ▶ Medication: treatment to prolong cognitive function.
  - ▶ Cholinesterase inhibitors.
  - ▶ Memantine blocks glutamate transmission.
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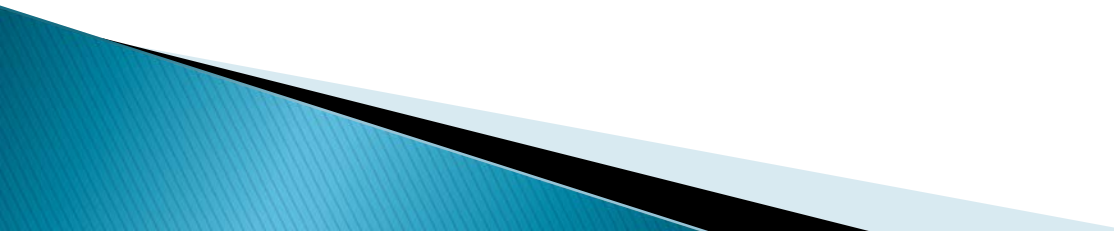
# Non-pharmacological interventions

- ▶ Physical wellbeing.
  - ▶ Recreational activities.
  - ▶ Art, music, pet, aromatherapy.
  - ▶ Socialisation.
  - ▶ Routine.
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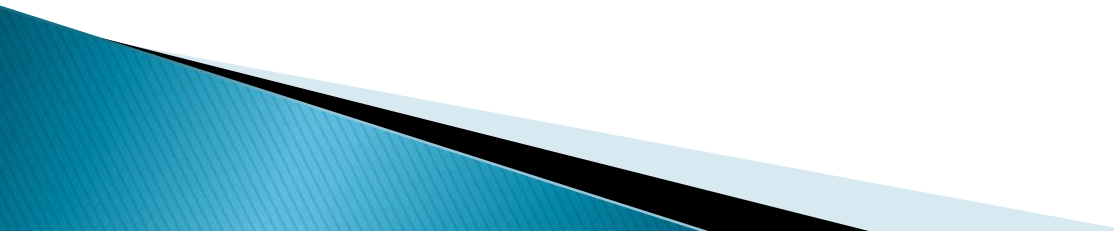
# Education

- ▶ Patient and family.
  - ▶ Discussion.
  - ▶ Legal and financial planning.
  - ▶ Quality of life issues.
  - ▶ Focus on what the person can do not what they cannot do.
  - ▶ Decrease environmental triggers and personal discomfort.
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# Brain vascular health

- ▶ Studies have shown that brain vascular disease plays an important role in progression of dementia.
  - ▶ May accelerate the deposition of the Beta Amyloid plaques and increase Amyloid toxicity to neurones.
  - ▶ Therefore managing BP, glucose, cholesterol is important as is staying physically, mentally and socially active.
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# Care givers

- ▶ Finding time to rest and relax.
  - ▶ Stress will impact.
  - ▶ Health/quality of life.
  - ▶ Important to try and help the person to discover a structured level of autonomy.
  - ▶ Sleep
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Thank you

