

# Decreasing the Risk for Brain Aging, Alzheimer's Disease and Other Forms of Dementia



# Age-Related Memory Problems Escalate After Age 45

- **The working population is aging!!**
- **Alzheimer's expected to triple in next 25 years!**
- **No cure for it on the horizon**
- **But there are very smart strategies to decrease your risk for Alzheimer's disease**

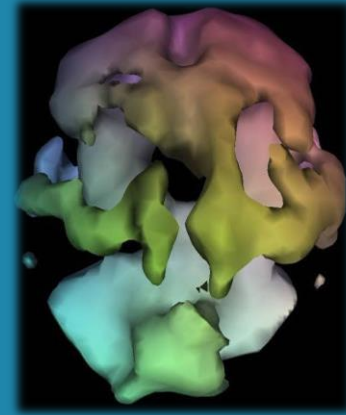
# Todd, Chief People Officer at FC

- Age 53
- Very poor memory
- Thinks its normal
- Marathoner
- Pop tarts and Diet Coke for breakfast
- I now haunt him at every meal

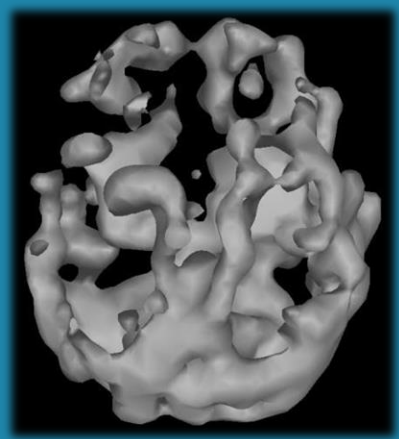


**Who wants to live to 85 or beyond?**

# You May Be At Risk for Alzheimer's Disease (AD) If:

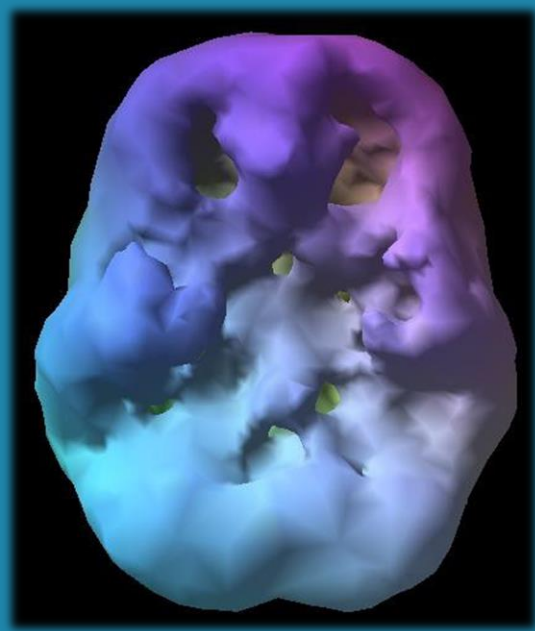


- You have a family member with it
- You have a personal history of head injury  
heart disease, strokes, diabetes, cancer,  
ADD or depression
- You exercise less than twice a week
- You do not engage in regular learning



# Age Related Memory Problems

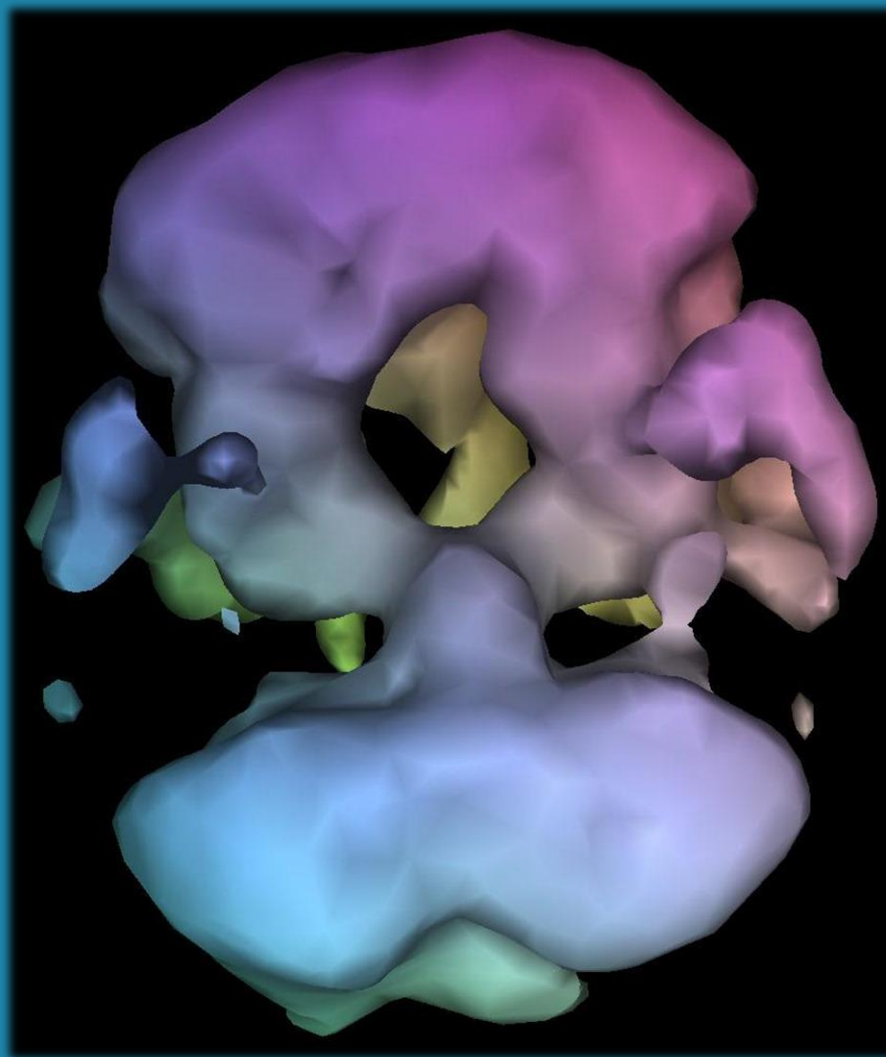
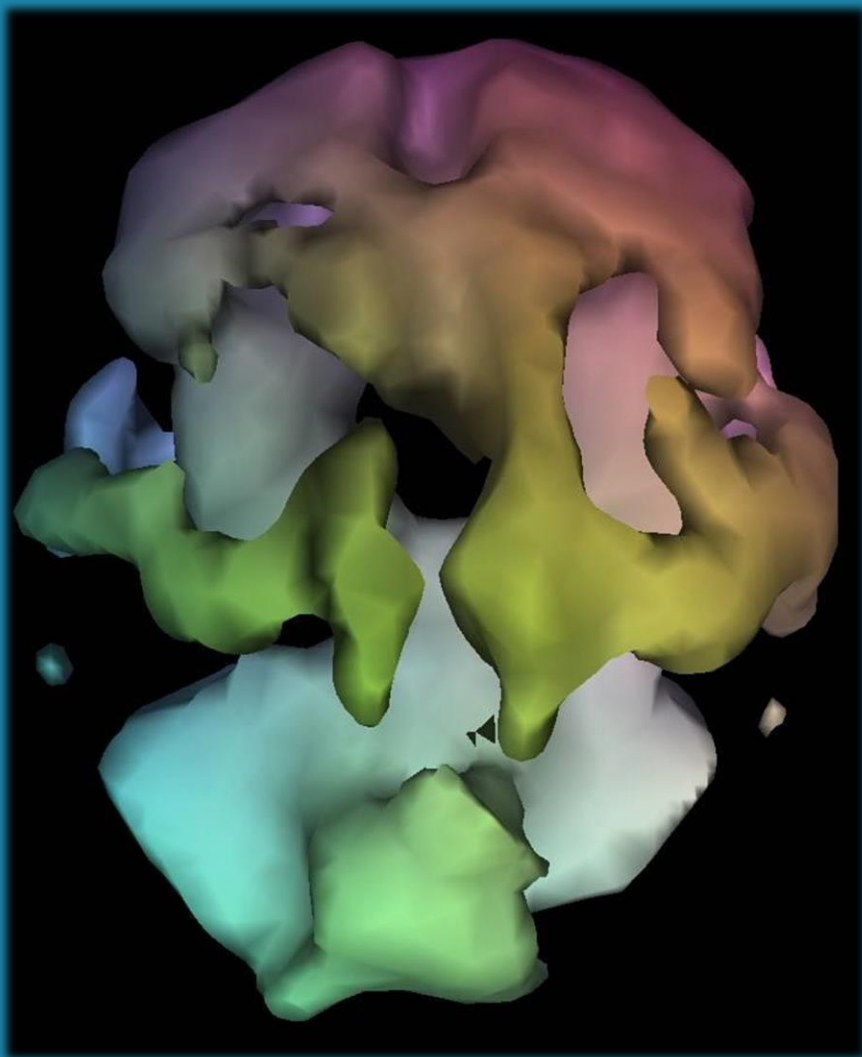
- **Alzheimer's Disease**
- **Frontal Temporal Dementia**
- **Vascular Dementia**
- **Lewy Body Dementia**
- **Alcoholic Related Dementia**
- **Chronic Fatigue Syndrome**
- **Mild Cognitive Impairment**
- **Brain Trauma**



# Dementia Defined

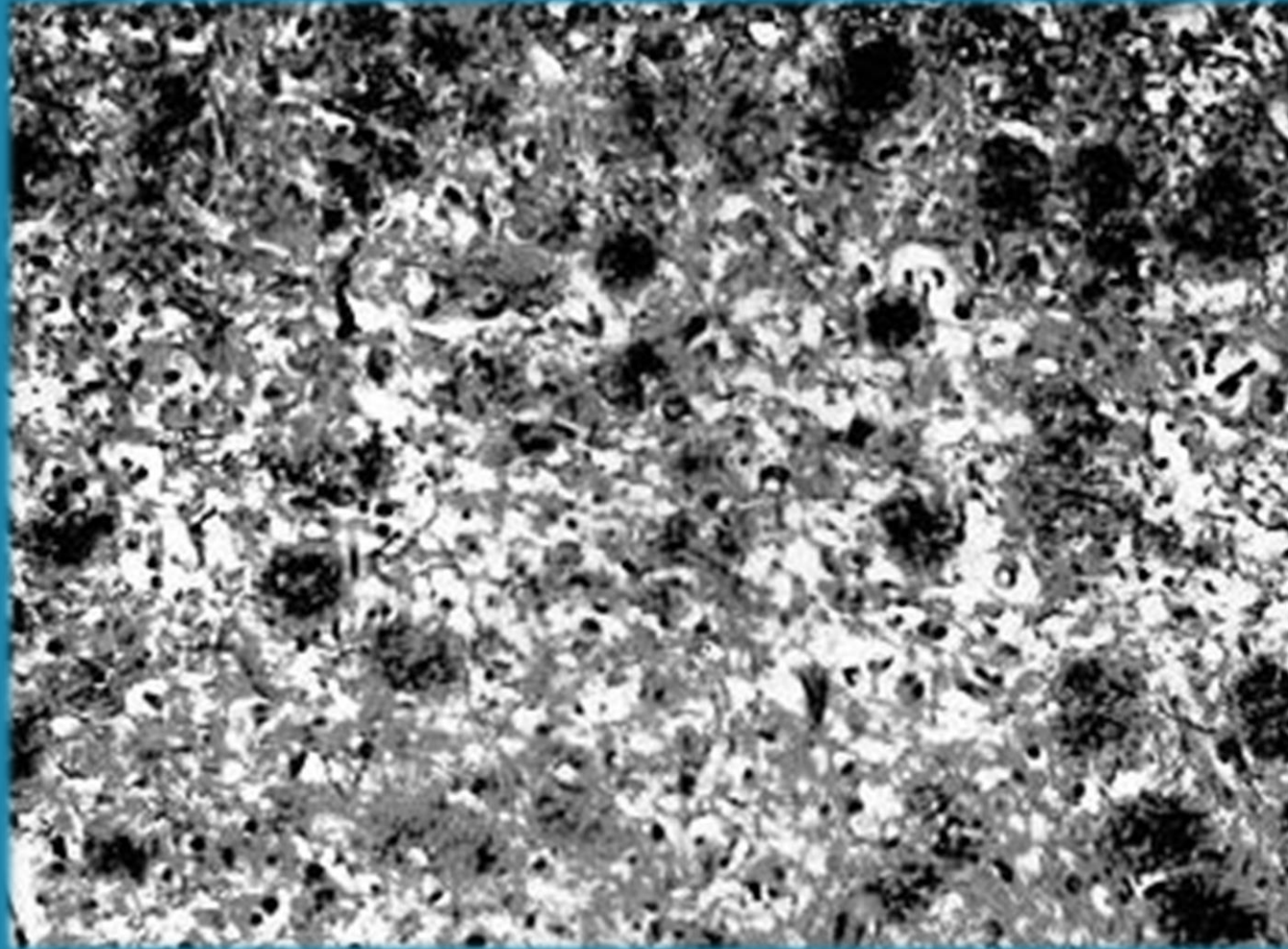
**Damage to nerve cells that results in a progressive difficulty with remembering, thinking, or doing your usual activities.**

# Alzheimer's Disease

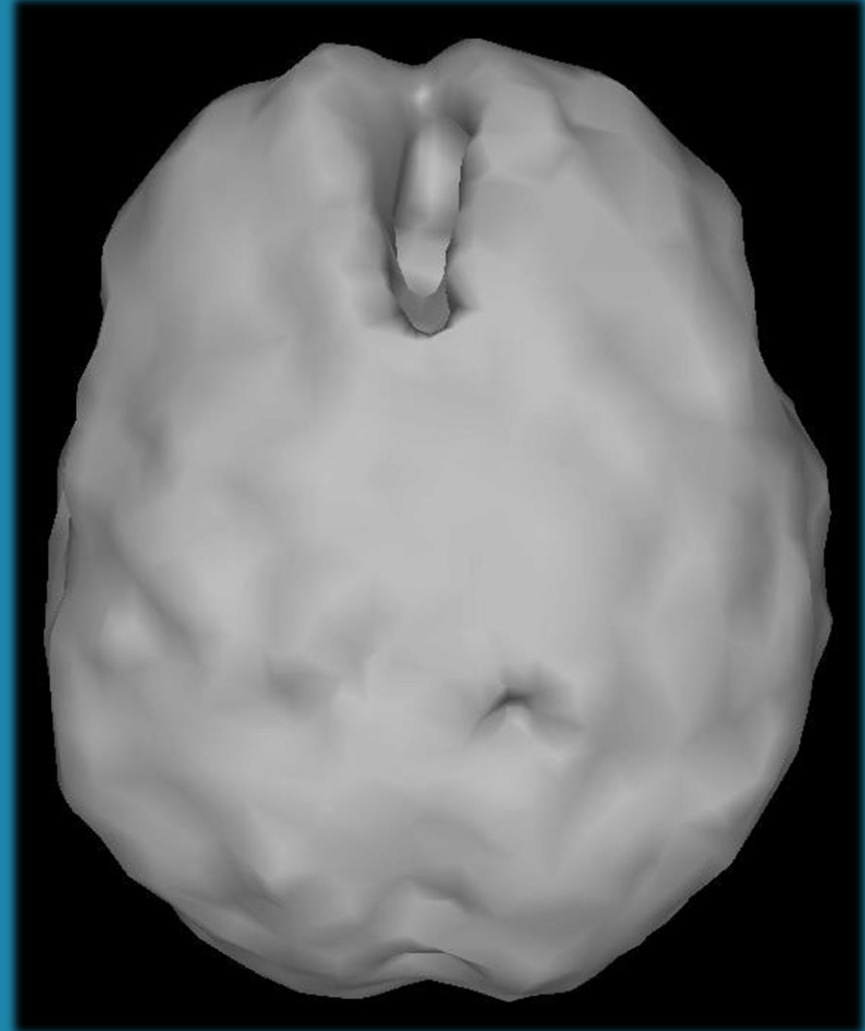
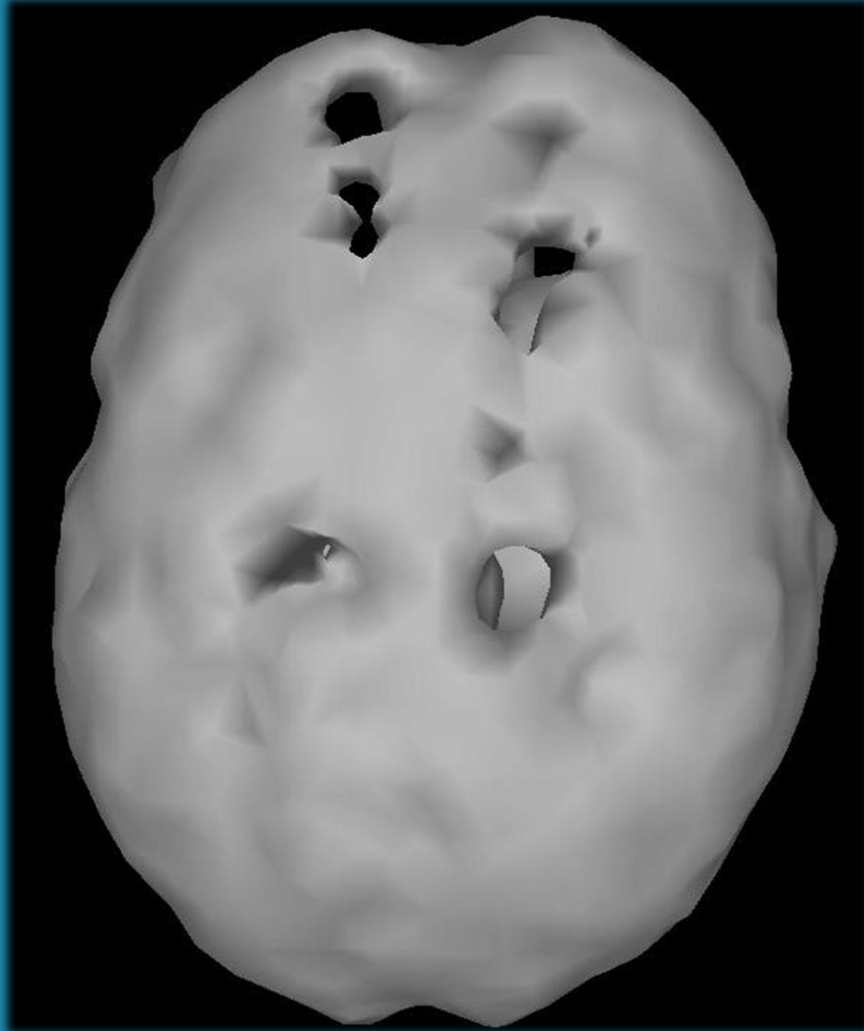




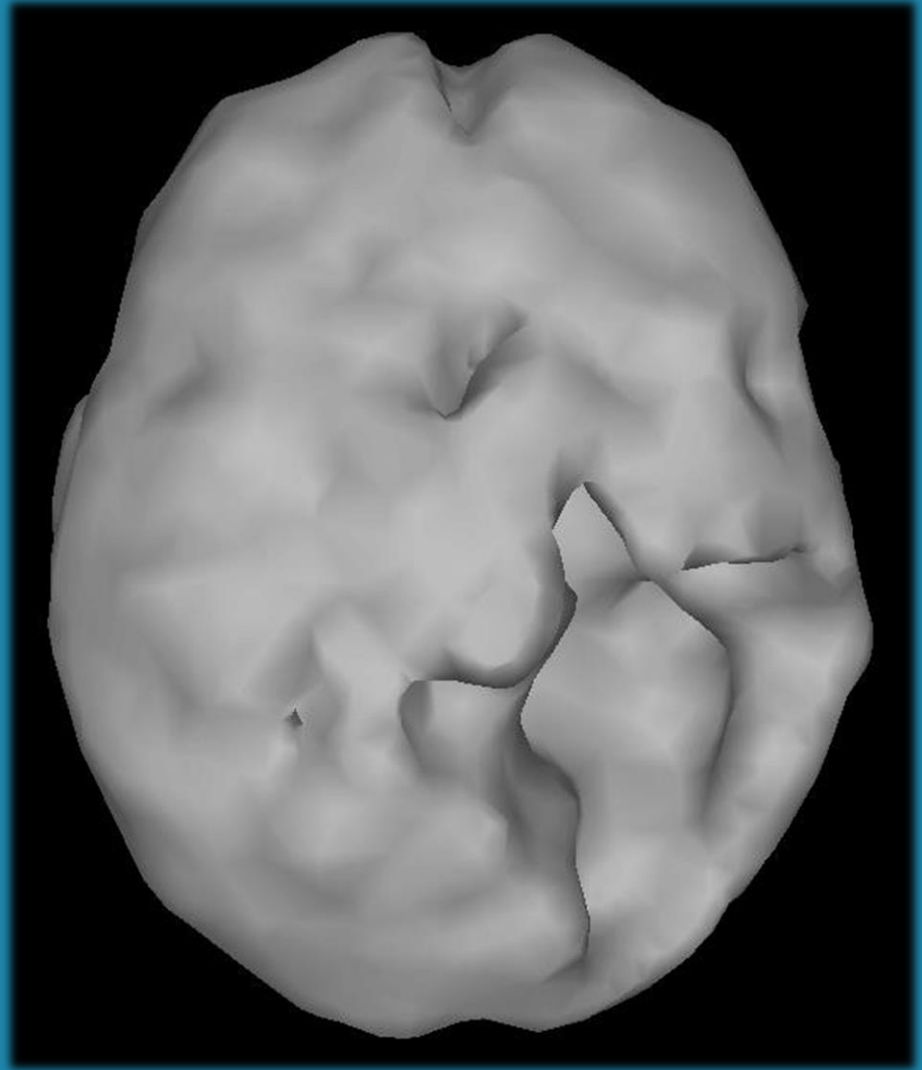
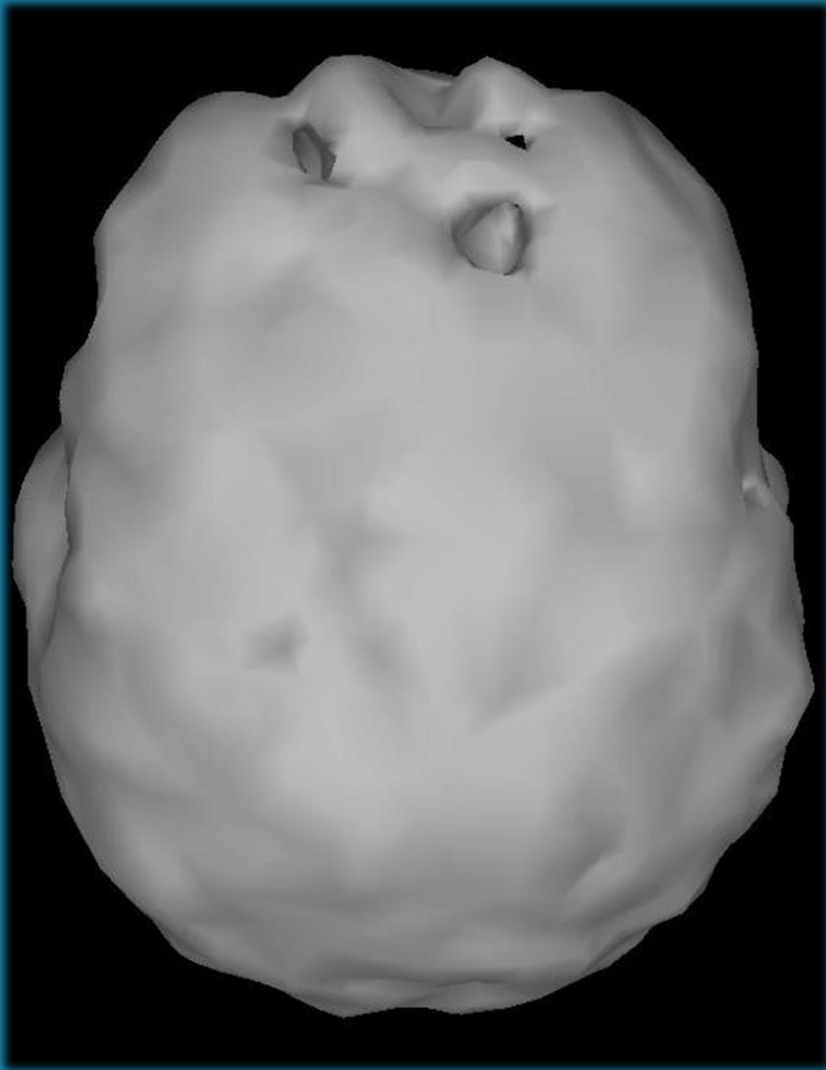
# Alzheimer's Disease



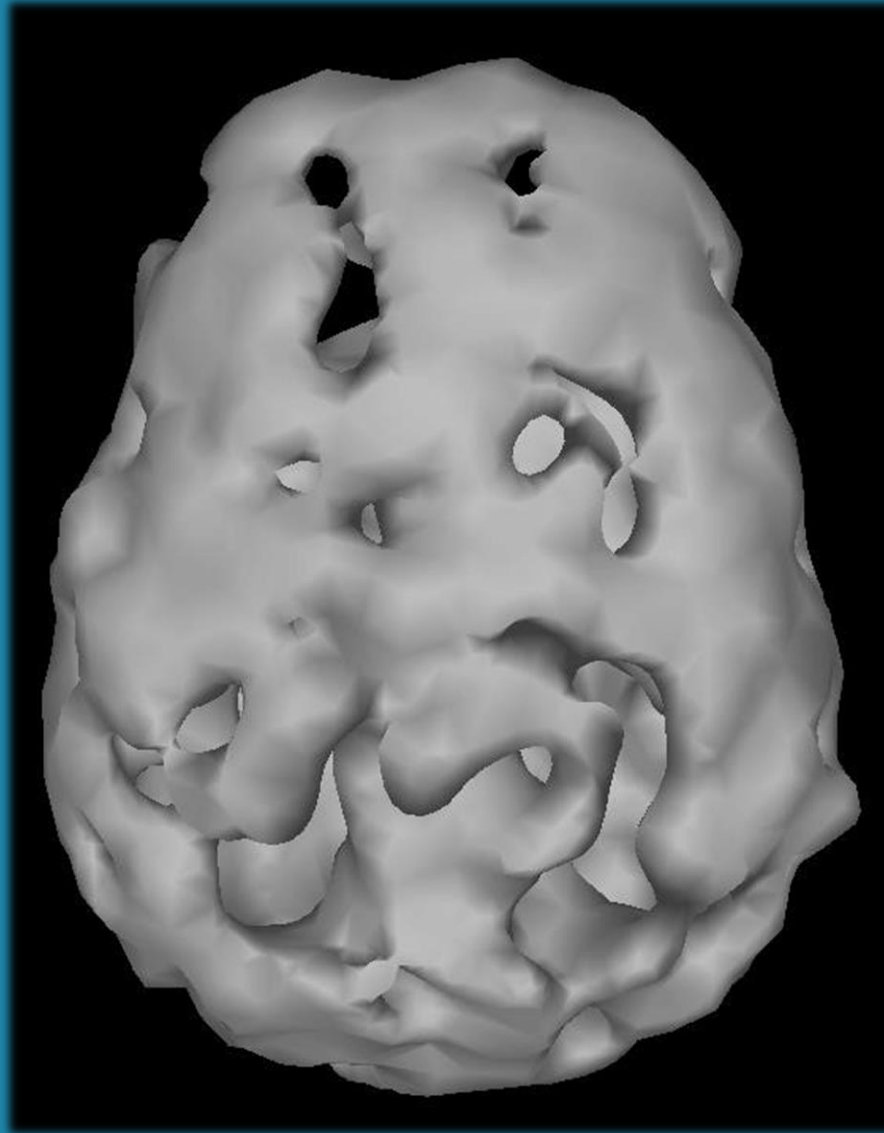
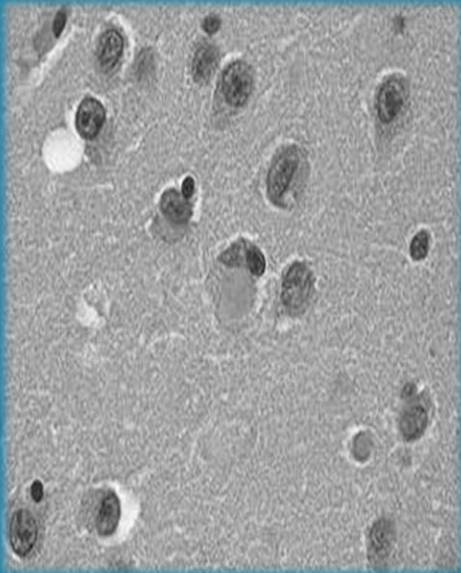
# Frontal Temporal Lobe Dementia



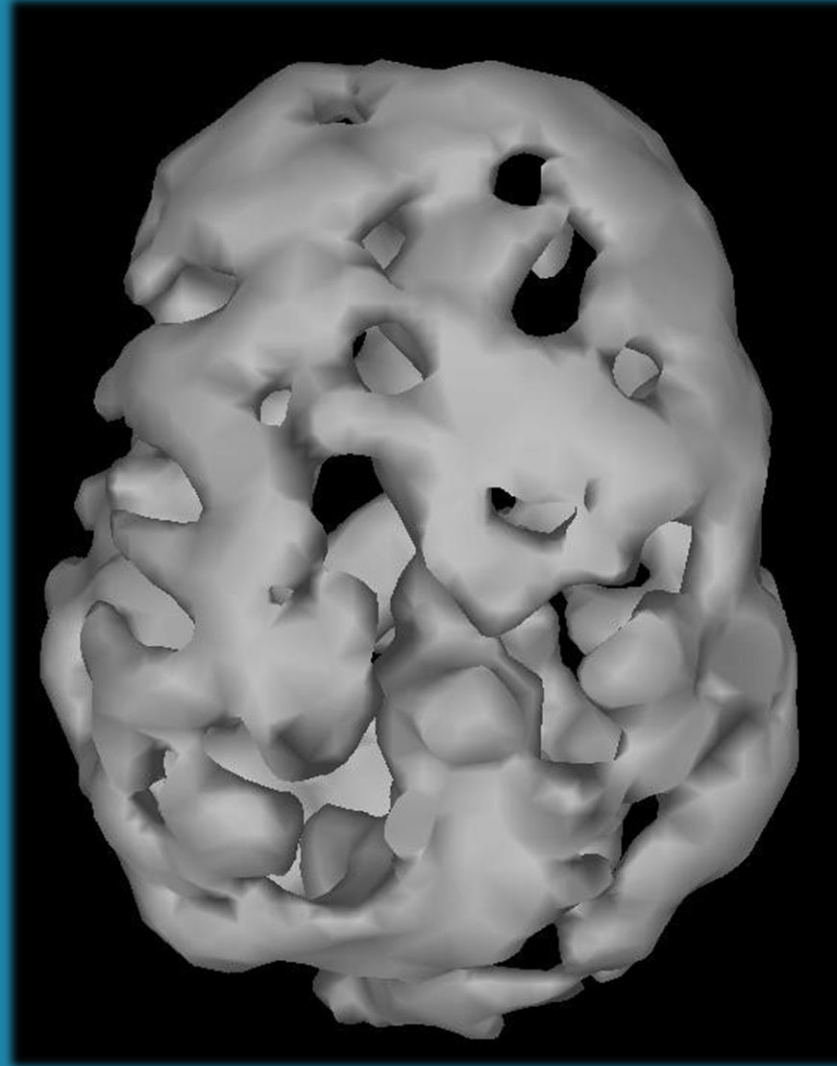
# Vascular Dementia



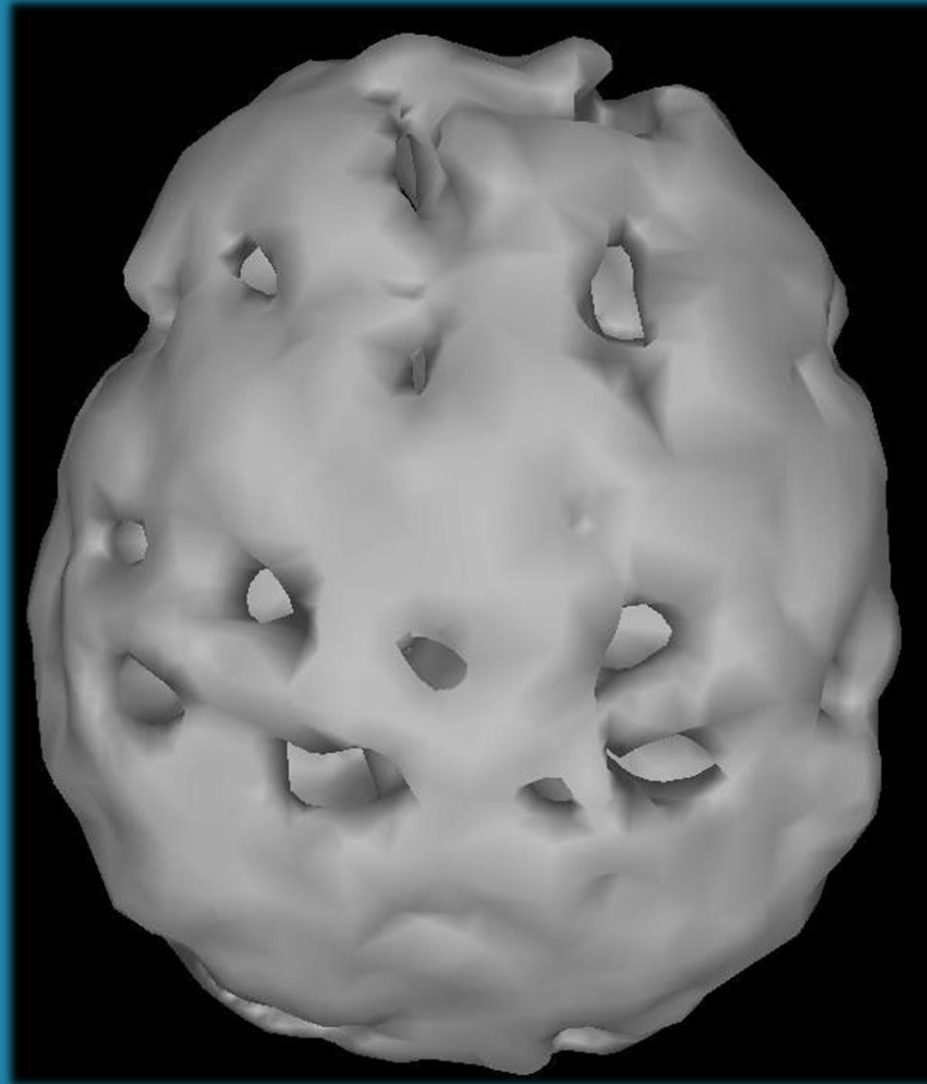
# Lewy Body Dementia



# Alcohol Related Dementia

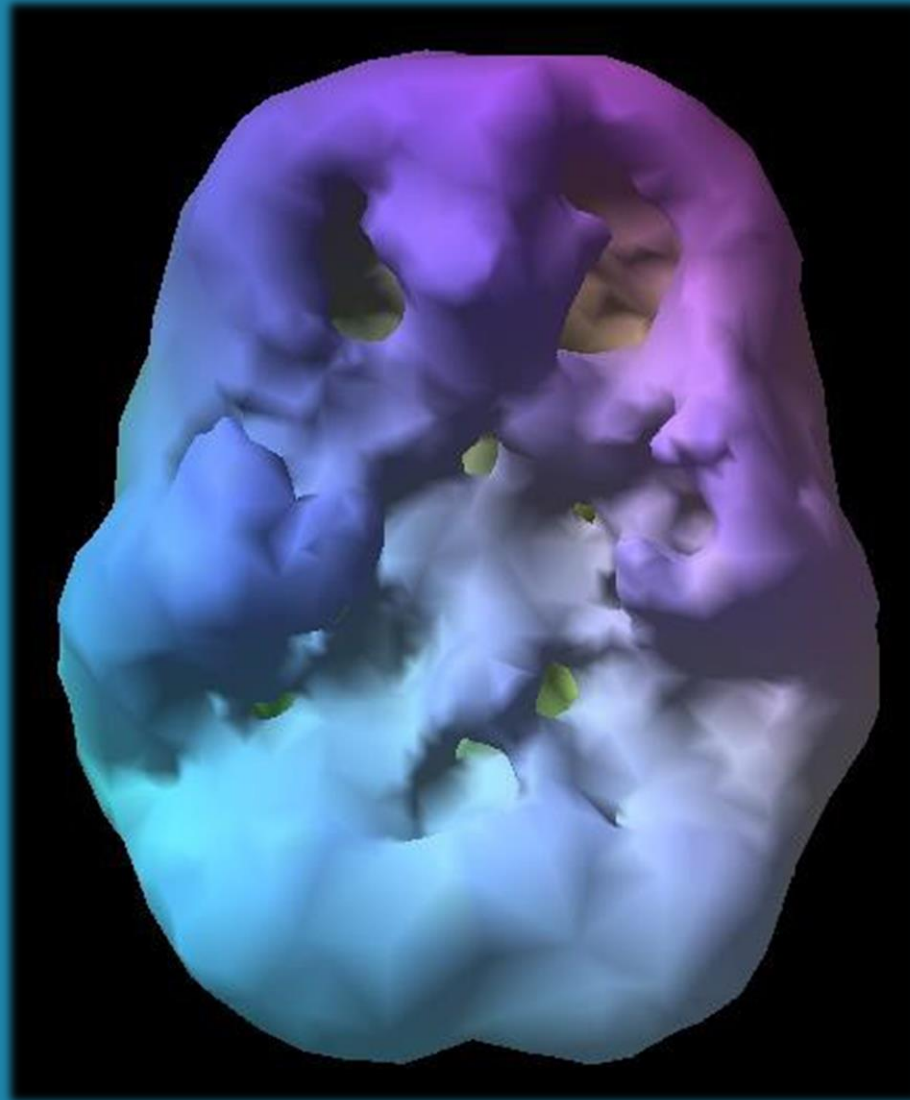


# Chronic Fatigue Syndrome

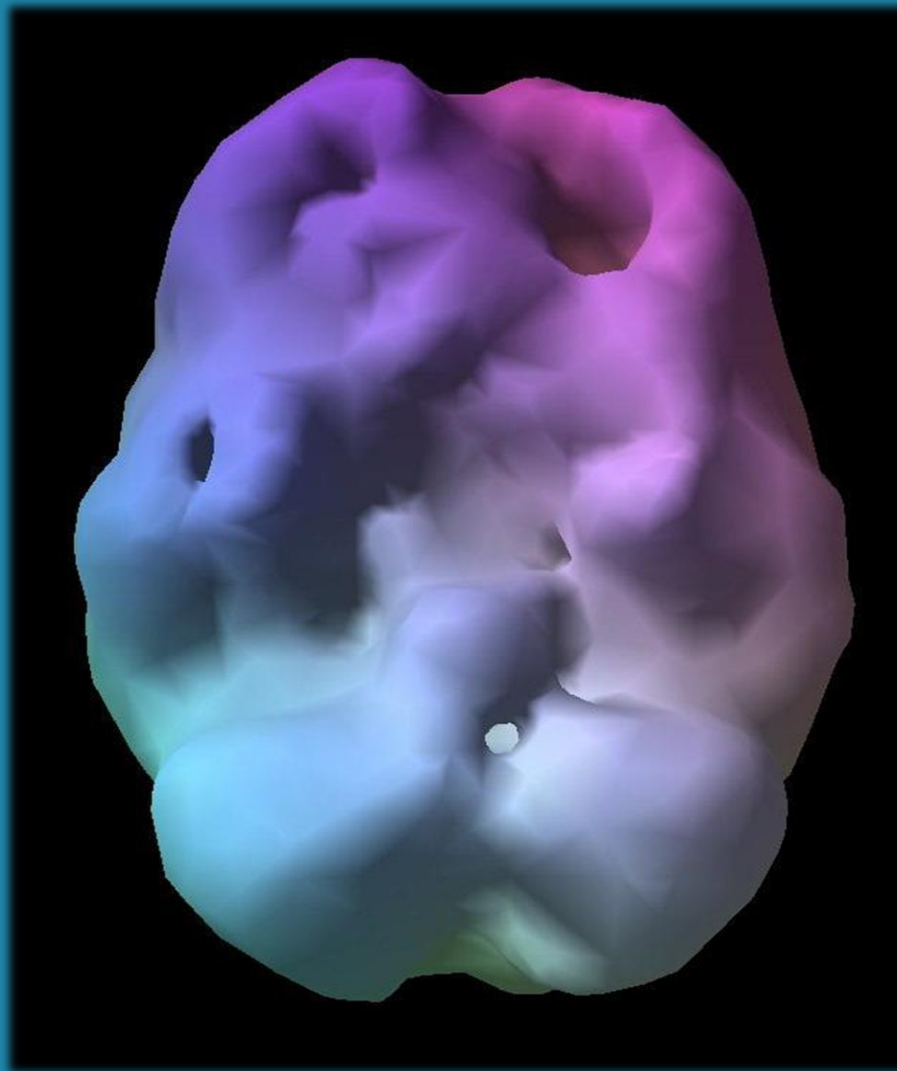




# Mild Cognitive Impairment



# Brain Injury





# Steps in Preventing Alzheimer's Disease

- **Know your risk**
- **Keep your body and brain active**
- **Antioxidants**
- **Beta amyloid reducing agents**
- **Modulate glutamate**
- **Enhance acetylcholine**

# Know and Reduce Your Risk

- **Genetic risks – Apo E4 gene**
- **Brain injury**
- **Alcohol abuse**
- **Obesity, Metabolic Syndrome**
- **CV disease, including high BP, lipid problems**
- **Cerebral vascular disease**
- **Exercise less than twice a week**

# Know and Reduce Your Risk (cont'd)

- **Less formal education**
- **Diabetes**
- **Smoking**
- **Parkinson's disease**
- **Untreated depression**
- **Untreated ADD?**
- **Low estrogen from hysterectomies**

# Know and Reduce Your Risk (cont'd)

- **Low testosterone levels**
- **Sleep apnea**
- **Cancer treatment**
- **High homocysteine levels**
- **Getting hair or nails done too often**

# Prevention Strategies

- **Know and change your risk**
- **Know ApoE status early, in childhood if play contact sports**
- **Exercise**
- **Brain exercise, new learning**
- **Curcumin and Vitamin D (reduce beta amyloid),  
as may low dose ibuprofen (100-200mg)**

# Prevention Strategies

- **Restricted diet, high in antioxidants**
- **Omega-3 fatty acids**
- **B6, B12, folate**
- **Tight blood sugar regulation, chromium?**

Krikorian J, Eliassen, JC, Boespflug EL, Nash TA, Shidler MD. Improved cognitive-cerebral function in older adults with chromium supplementation. *Nutritional Neuroscience* 2010 Vol 13 No 3

# Early Detection

- Treatment works early, not late
- 95% not diagnosed until late
- Smell identification test:
  - ❖ Strawberry
  - ❖ Pineapple
  - ❖ Lemon
  - ❖ Natural gas

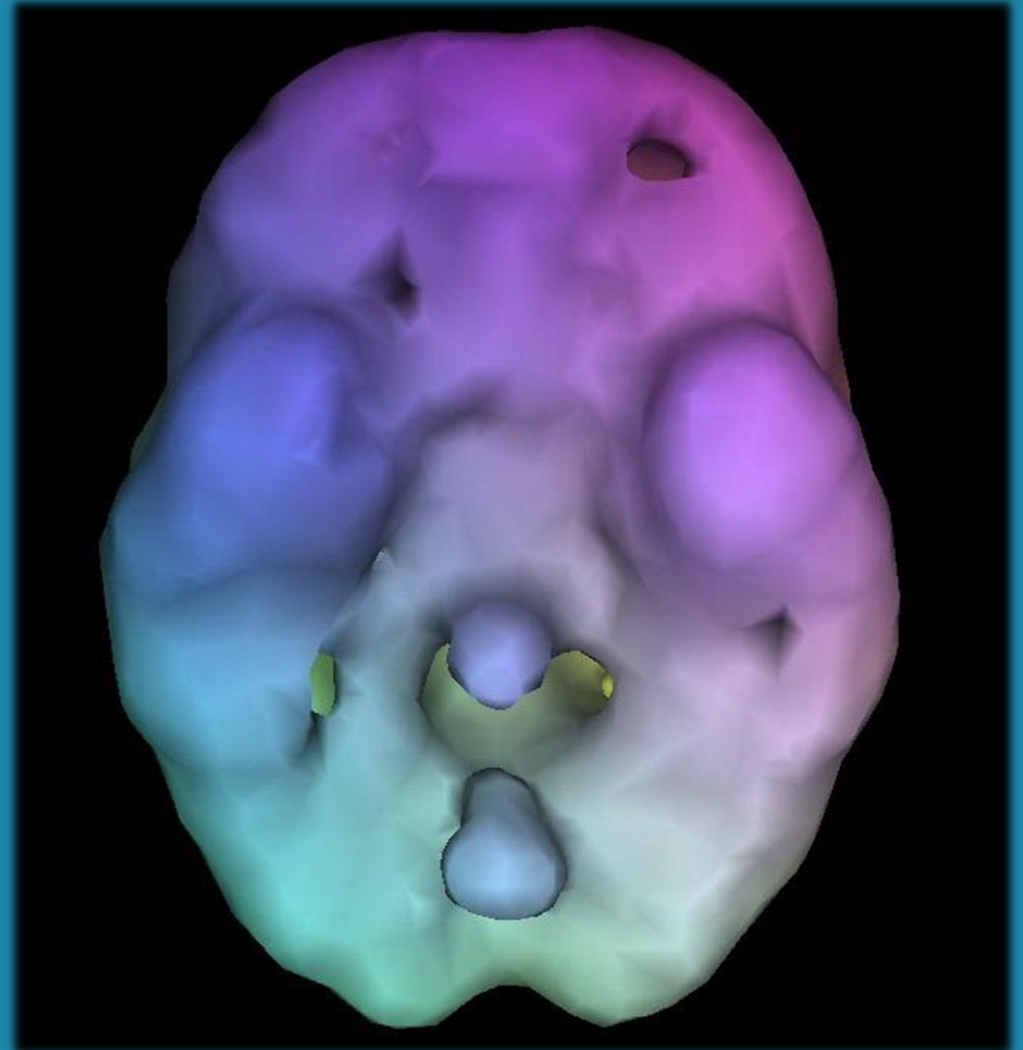
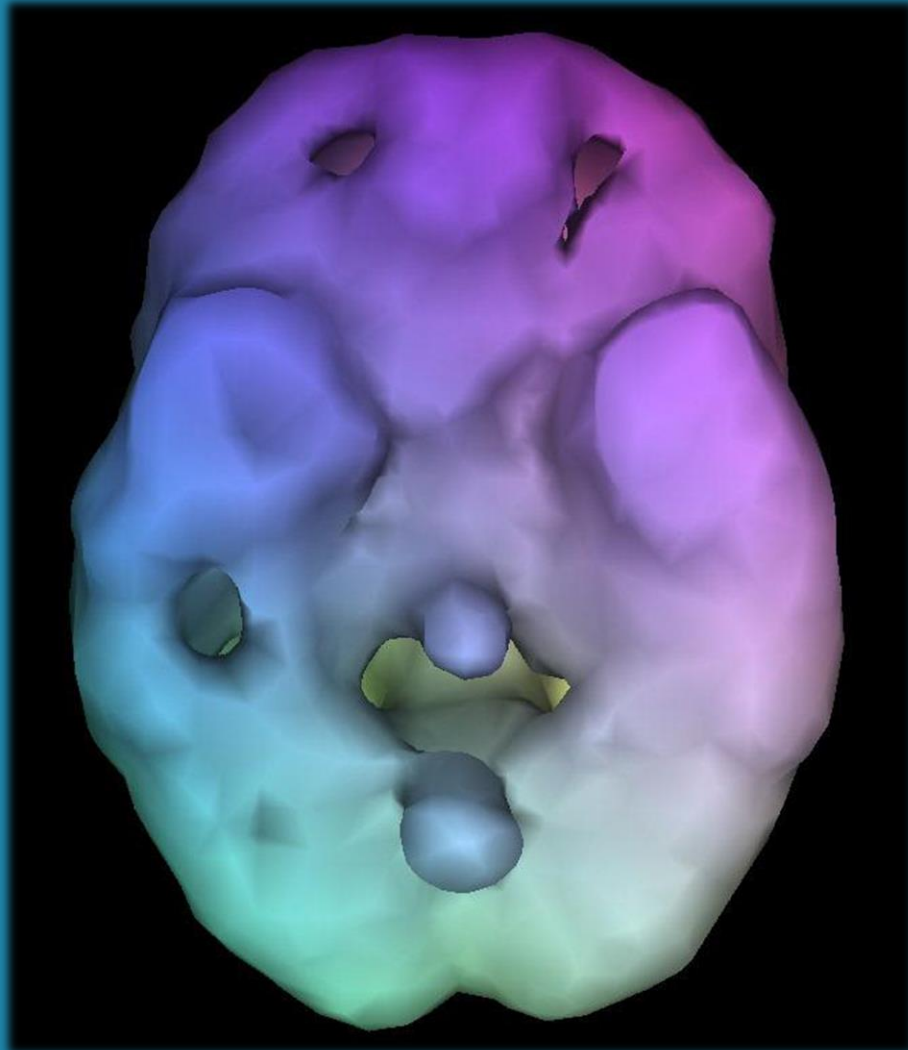


# Early Treatment Strategies

- **Work up for other causes of memory loss**
- **Prevention strategies**
- **Gingko, vinpocetine, huperzine A, acetyl-l-carnitine**
- **Acetylcholine enhancing agents (Aricept, Reminyl and Exelon)**
- **Glutamate modulator (memantine)**



# Before and After Memantine



# Before and After Memantine

