Can I Reduce My Risk for Developing Alzheimer’s Disease?

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What happens to the brain as we get older?
What happens to the brain as we get older?

Svennerholm et al
What happens to the brain in Alzheimer’s?

Cognitive function \[\rightarrow\] Aging

Preclinical

Mild Cognitive Impairment

Dementia

Years \[\rightarrow\]
Alzheimer’s disease risk factors

- Age
- Genes (APOE ε4)
- Family History
- Cardiovascular risk factors
- Insulin resistance
Midlife is important

- Risk factors in midlife predict Alzheimer’s 20 yrs. later
- What happens to the brain in midlife?

Alzheimer’s Association
Late-middle-aged participants
Examined effects of cardiovascular risk factors
Implications?

• Importance of glucose of insulin
• May inform treatments
• May inform prevention
Can I reduce my risk?
How did people do?

- DASH: No one had perfect scores. X
- DASH: number of grain servings exceptionally low: only 1.3% achieving the target amount of 7 servings per day. X
- Only 35% reported consuming 4 or more servings of vegetables per day and even less. X
- Relatively few met limits for saturated fat or sweets. X
- Many consumed 2 or fewer daily servings of meat ✓
- More than half reported consuming less than 2,400 mg sodium per day (<1/2 teaspoon). ✓
How did people do?

- Mediterranean diet: only 5.8% received a perfect score for veg component (consumed > 33 vegetable servings per week). X

- Few met targets for potatoes (0.1%) X, olive oil (4.3%) X, or fish (0.2) X … although 46.4% did meet the optimal intakes of alcohol. ✓
MIND DIET

**10 brain-healthy food groups:**
Green leafy vegetables
Other vegetables
Nuts
Berries
Beans
Whole grains
Fish
Poultry
Olive oil
Wine

**Unhealthy groups are:**
Red meats
Butter and stick margarine
Cheese
Pastries and sweets
Fried or fast food
Your brain is like a muscle
Protective factors in cognitive aging

- Education
- Bilingualism
Can you change your brain with cognitive exercise?

60-85 years of age
Can you change your brain with cognitive exercise?

- **ACTIVE Study**: 2,802 healthy adults age 65 and older
- **Cognitive training**: ten 60- to 75-minute sessions over 5- to 6-week period
- At 5-year & 10-year follow-ups, ACTIVE study participants still showed cognitive improvements
- Improvements from the training roughly counteracted the degree of decline in cognitive performance
How often do you play games such as cards, checkers, crosswords, or other puzzles?
Can you change your brain with cognitive exercise?

- Older adults, after learning to use Facebook, performed ~25 percent better on memory tasks
Summary

Factors outside of control...
- Age
- Genetics
- Family history
- Environmental factors

Possibly modifiable?
- Blood sugar
- Exercise
- Cognitive & social engagement
- Sleep, Stress, Music
WE NEED TO START WORRYING ABOUT WHAT KIND OF WORLD WE ARE GOING TO LEAVE FOR KEITH RICHARDS.
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