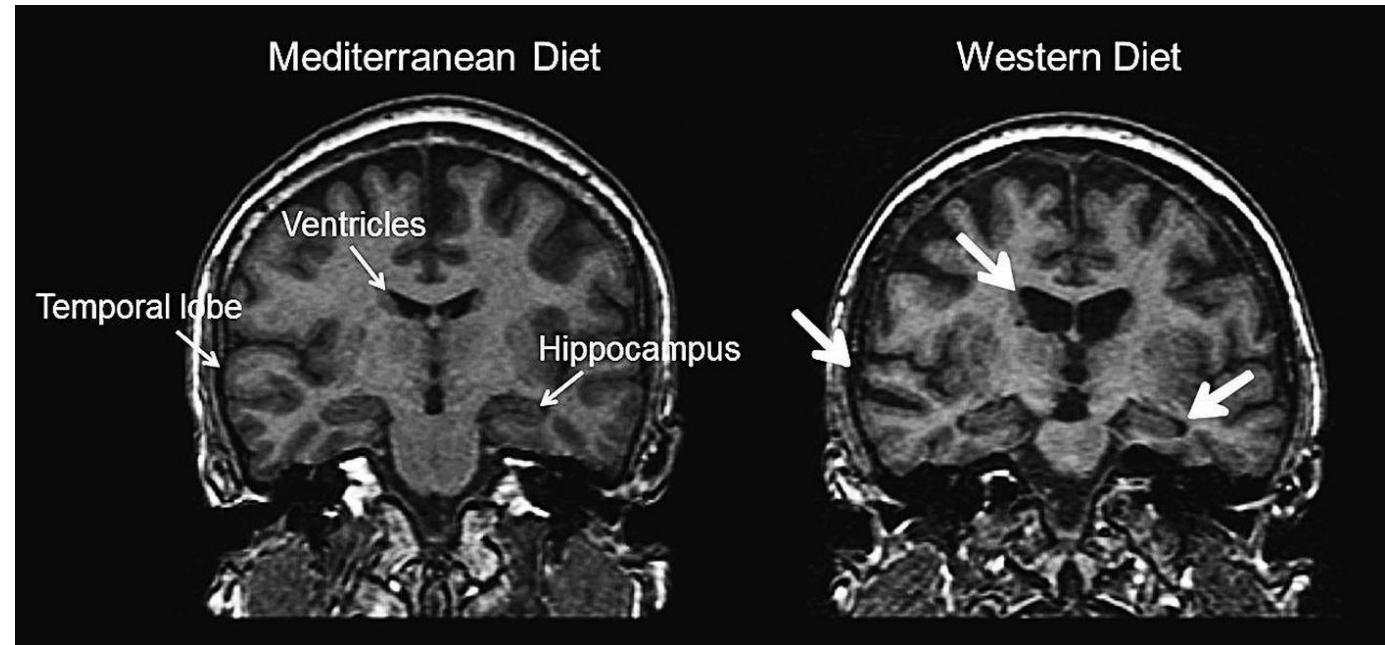


# Diet and Cognition (from the Honolulu-Asia Aging Study)

- Examined midlife characteristics (nonsmoking, BMI, exercises, and healthy diet)
- Intake for fruit, vegetables (not including salted Japanese vegetables), fish, ratio of monounsaturated to saturated fat, and cereals (including rice, noodles, breakfast cereal, and bread, both whole and refined grains) and low intake for meat and dairy.
- Overweight and obesity in midlife have been linked with greater risk of dementia.

# Mediterranean diet and cognition

- Eating primarily plant-based foods, such as fruits and vegetables, whole grains, legumes and nuts
- Replacing butter with healthy fats such as olive oil and canola oil
- Using herbs and spices instead of salt to flavor foods
- Limiting red meat to no more than a few times a month
- Eating fish and poultry at least twice a week
- Enjoying meals with family and friends





## **Midlife Dietary Intake of Antioxidants and Risk of Late-Life Incident Dementia**

### **The Honolulu-Asia Aging Study**

- Intakes of beta-carotene, flavonoids, and vitamins E or C were not associated with modification the risk of late-life dementia.

However...

- Don't take away hope, but talk with their PMD as supplements may affect other medications.

# Supplements

- Omega-3 Fish Oil:
  - Normal aging: no effect
  - MCI: 4/5 small studies w/mild improvement
  - AD: Only 1/6 small studies with minimal effect
- Vitamin E
  - Normal elderly: 400 IU/day: PREADVISE trial (2017) – no effect
  - Mild/mod AD: 2000 IU/day: 19% reduction rate decline in ADLs but no cognitive effects (Dysken et al., 2014)
- Vitamin D
  - While 3 small studies indicated improvement in executive functioning, we live in California...

# Traditional Chinese Medicine

- According to the TCM, the brain is an outgrowth of and is nourished by the kidney. (*kidney stores essence to generate marrow*)
- Memory and cognitive are believed to be due to phlegm obstruction of the channels by blocking upper orifices.
- TCM also believe AD to be multifaceted.

# Acupuncture

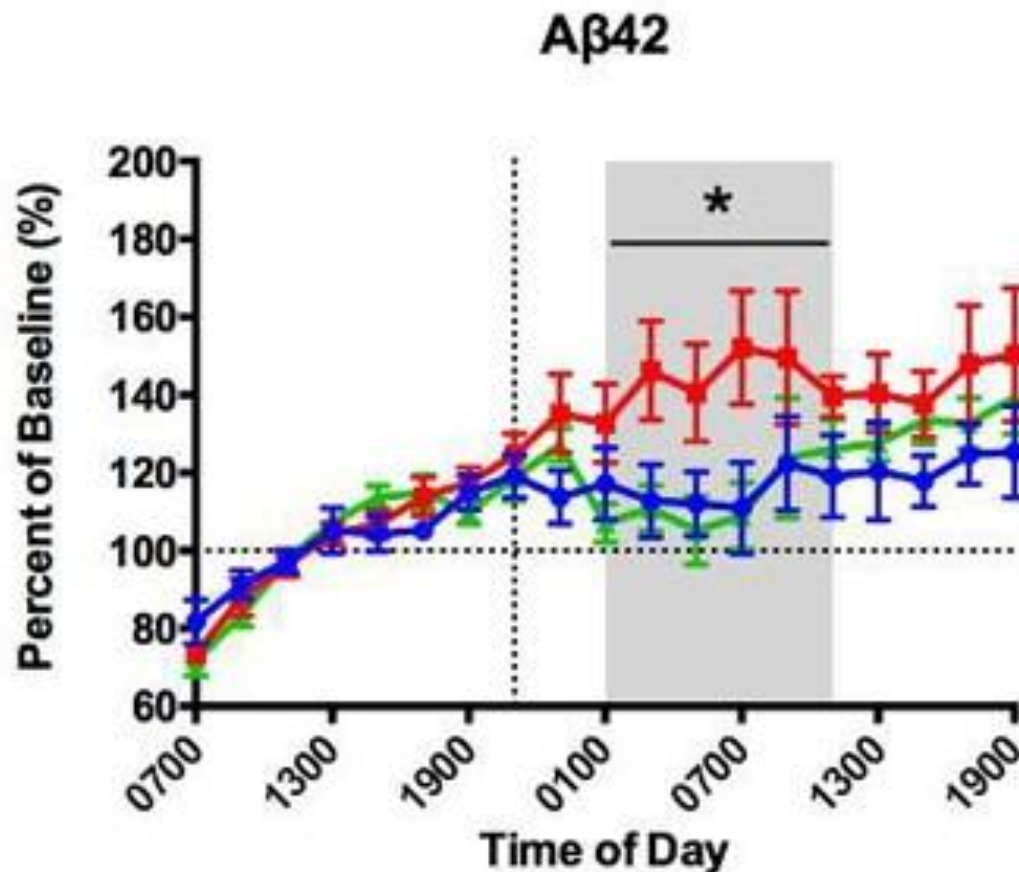
- Five studies involving 677 participants were analyzed.
- Acupuncture had mixed effects on cognitive functions.
- Acupuncture combined with western medications did not improve cognitive functions as measured by MMSE or MOCA in patients with mild cognitive impairment.

# Sleep-disordered breathing:

- 1.9X odds MCI at 5 years (JAMA 2001)
- 1.7X odds dementia at 5 years (PLoS One 2013)



# Sleep disruption increases CSF A $\beta$ (Lucey et al 2018)

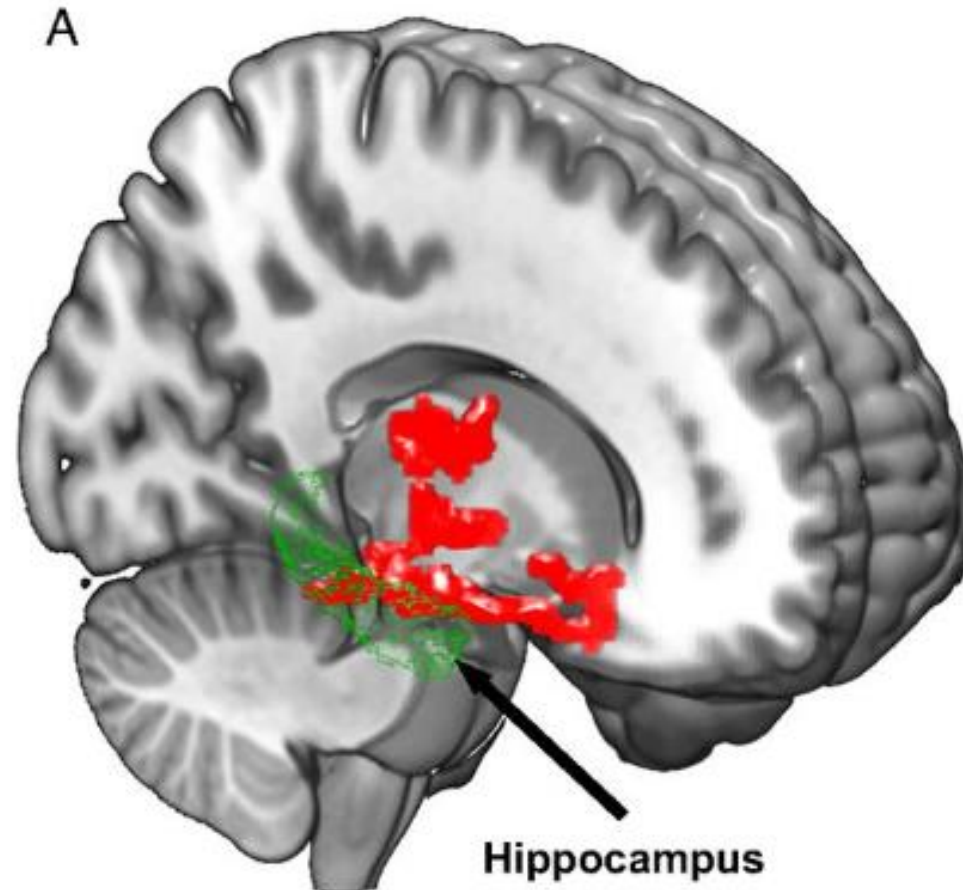


*Total CSF A $\beta$  (top) waned throughout the night in people who slept normally (blue) or who took a sleep aid (green), but rose 30 percent in those who stayed awake (red).*

*\*likely due to elevated synthesis*

# Get some good sleep!

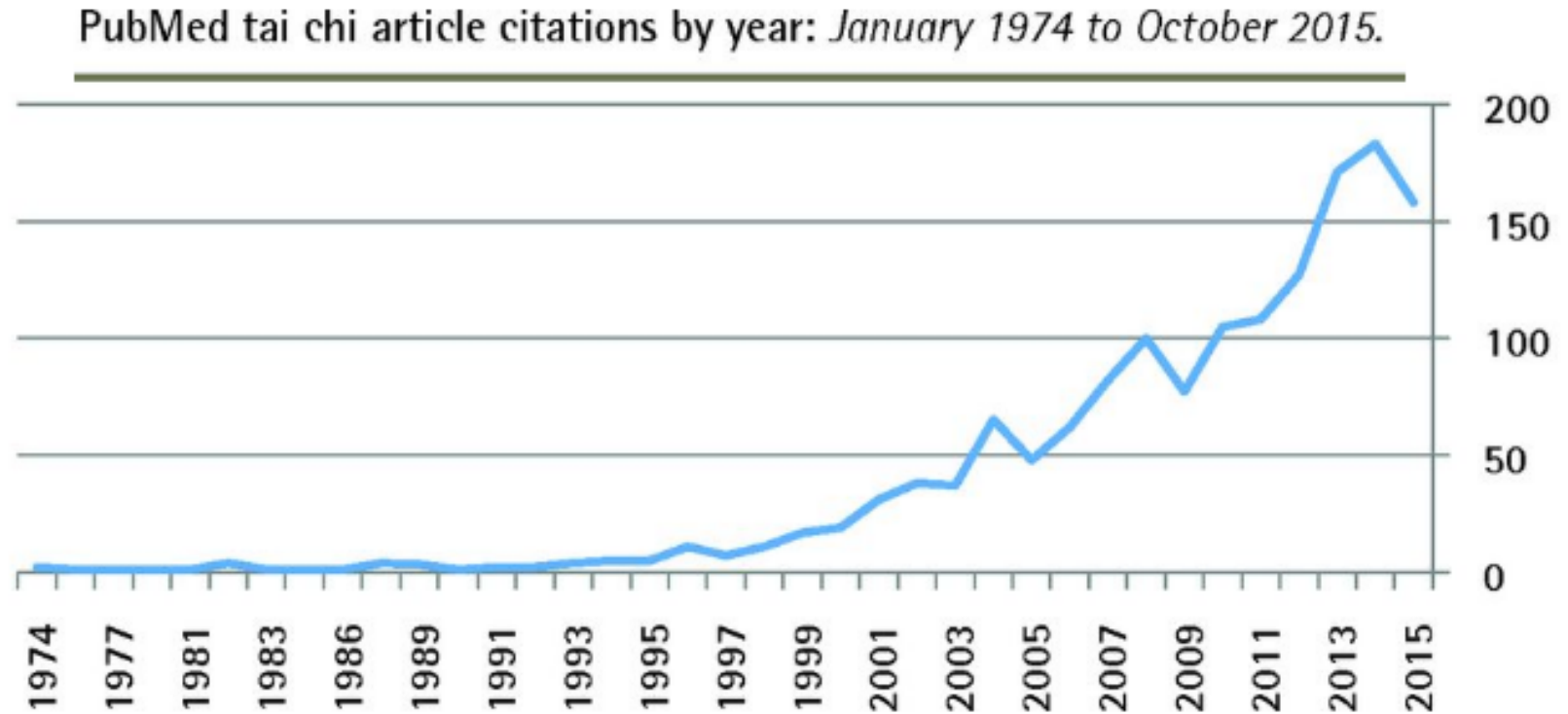
- Acute sleep deprivation impacts amyloid burden in right hippocampal regions.



Exercise?

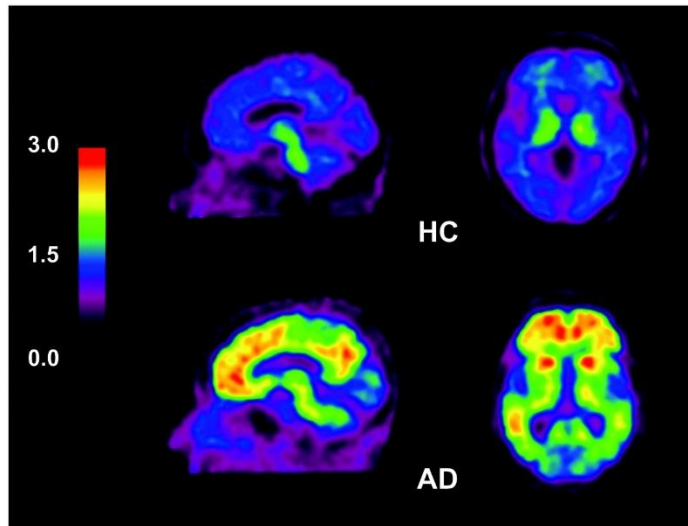


# Tai chi

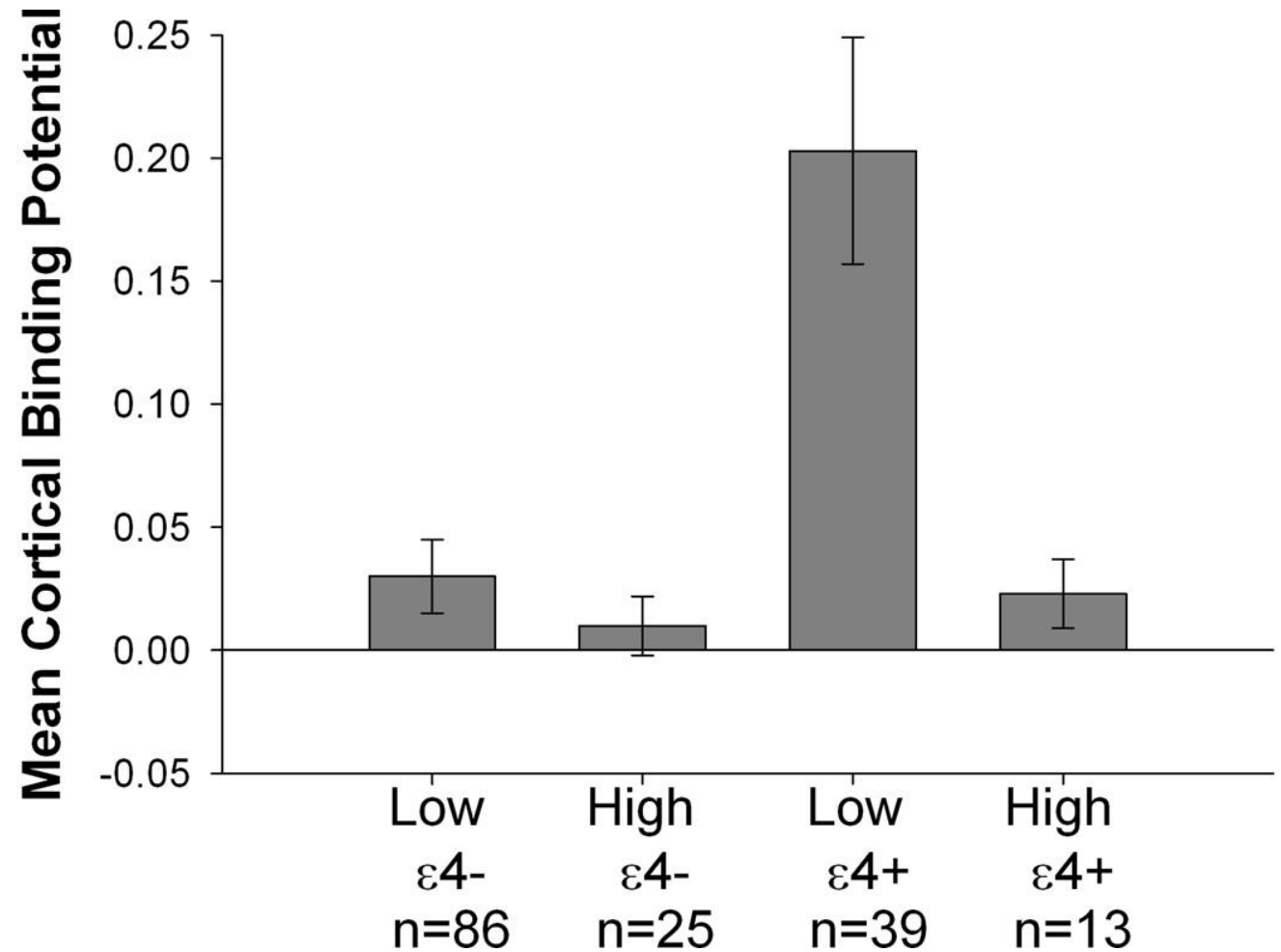


- 2 systematic reviews on tai chi for the treatment of cognitive impairment showed improvements in MMSE scores. (Better than physical activity for improving EF.)
- 1 recent short-term study in those with mild cognitive impairment did not find any improvement.
- Reduce the stress effects on brain health, nevertheless.

# Exercise and amyloid reduction (Arch Neurol 2012)



- Exercisers (past 10 years, 30 min mod 5X/wk)
- Higher PIB binding in more sedentary individuals
- We were told that we can't do anything to our genes?



# Exercise and dementia risk

- How much? 30 min/day, 5days/week – moderate levels
- Meta-analyses have consistently shown roughly a 40% reduced risk of AD
- If you have an hour with your elderly loved ones, walk and talk with them for an hour!

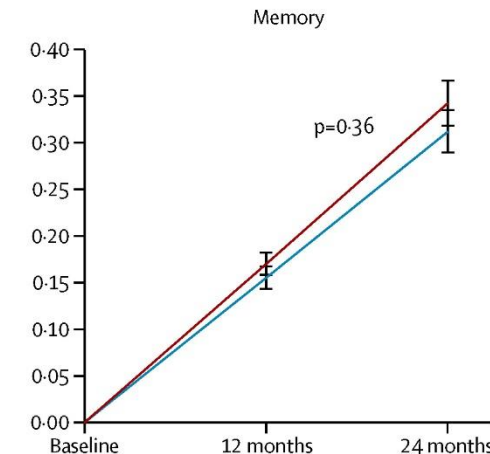
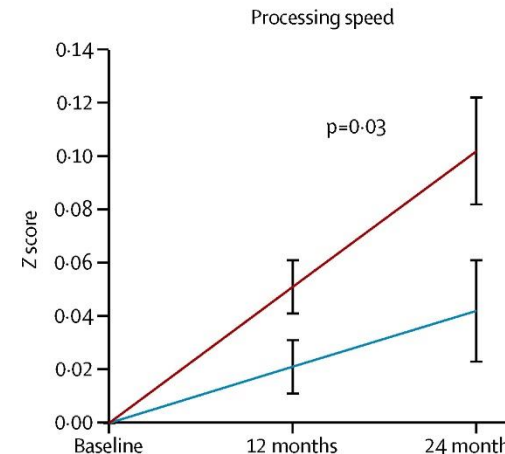
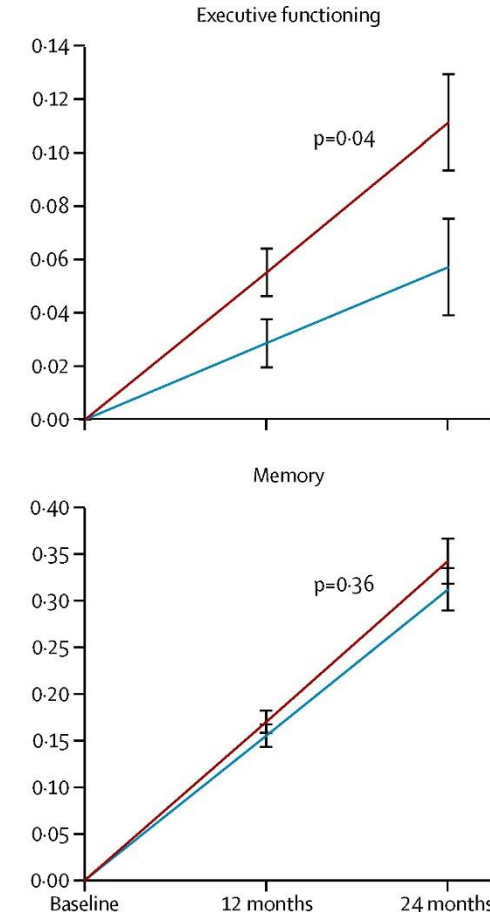
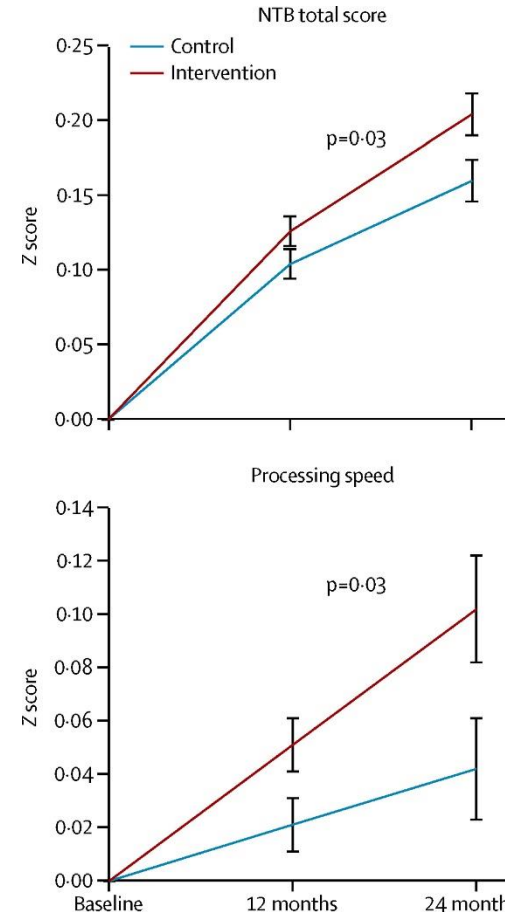
# When 68 elderly with probable AD enrolled in either 150 min/wk of aerobic exercise vs. non-aerobic stretching (PLOS 2017)

	Timepoint	Stretching and Toning Control	Aerobic Exercise	Arm by Timepoint Interaction
Memory Composite	Baseline	-2.8 (1.4)	-2.5 (1.4)	$X^2 = 0.82 (2)$ $p = 0.66$
	Week 13	-2.8 (1.5)	-2.3 (1.5)	
	Week 26	-2.7 (1.7)	-2.3 (1.7)	
Executive Function Composite	Baseline	-1.34 (0.85)	-1.12 (0.82)	$X^2 = 2.6(2)$ , $p = 0.27$
	Week 13	-1.25 (0.94)	-1.09 (0.86)	
	Week 26	-1.33 (0.97)	-1.20 (0.90)	
Disability Assessment for Dementia	Baseline	91.2 (8.0)	88.0 (12.3)	$X^2 = 8.2(2)$ , <b><math>p = 0.02</math></b>
	Week 13	89.5 (12.8)	89.8 (12.5)	
	Week 26	86.7 (13.3)	89.5 (13.7)	
Cornell Scale for Depression in Dementia	Baseline	7.4 (3.8)	8.6 (5.1)	$X^2 = 1.3(2)$ , $p = 0.51$
	Week 13	8.1 (4.4)	8.4 (4.6)	
	Week 26	7.8 (4.4)	7.8 (5.2)	

Mean (standard deviation) unless otherwise noted.

# Summary: FINGER (diet, exercise, cognitive training, and vascular risk monitoring) (Lancet 2015)

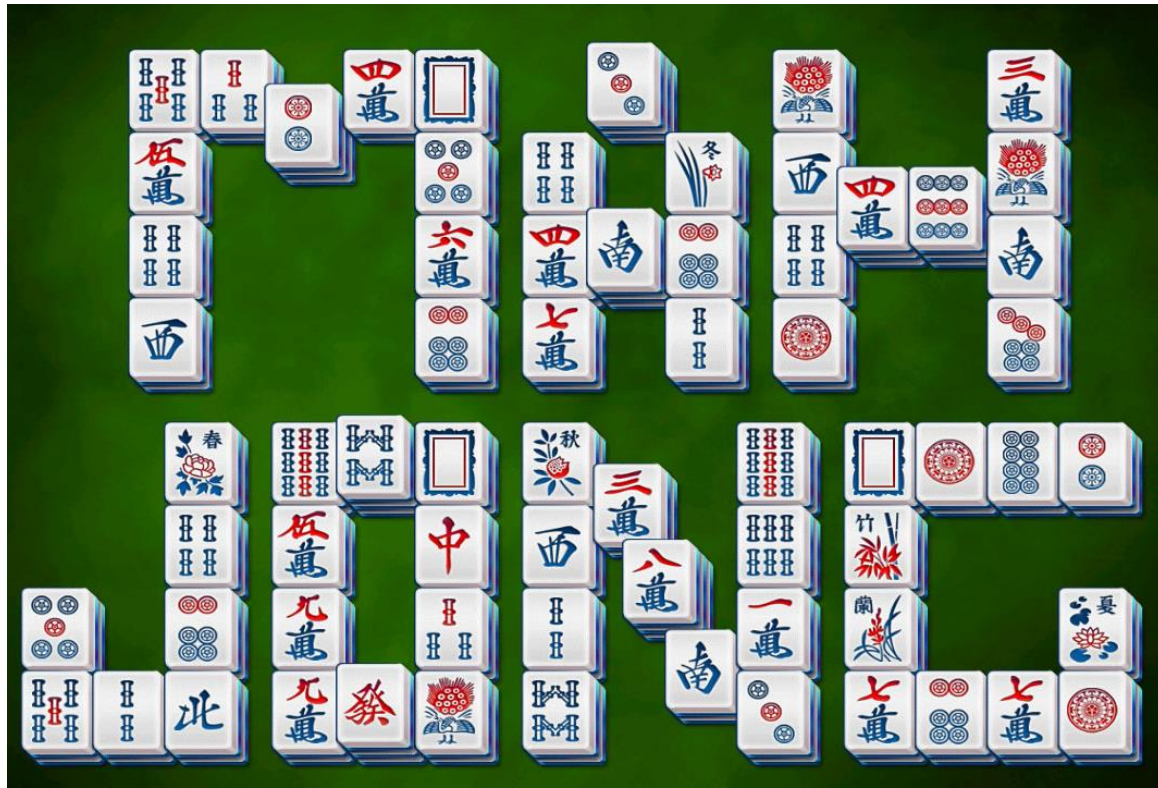
- High consumption of fruit/vegetables, consumption of wholegrain products and low-fat milk and meat products
- Limiting sucrose intake to less than 50g/day
- Fish consumption at least two portions per week
- Physical exercises 5x/wk
- Cognitive training



Older adults are less accurate than younger adults at identifying CVD as a cause of dementia in the Chinese American community (Int Psychogeriatr 2013)

- 132 were young participants, while 76 participants were 65 years or older.
- Both younger and older adults showed misconceptions that dementia is due to old age and cannot be treated.
- Older adults showed a significantly lower level of understanding that dementia could result from cardiovascular disease.

# Mahjong



# What does the Asian American general public understand about prevention and treatment of dementia?

- Normalization of memory loss in old age.
- Social-cultural attribution and causal attribution
- Lack of knowledge about course of dementia
- Sketchy knowledge about dementia treatment (esp issues with dementia caregiving group)
- Stigma + “face saving”

# Dementia knowledge and information seeking of Chinese American Immigrants (JAGS 2013)

- Fifty (36%) of the 139 participants demonstrated interest in receiving further dementia education.
- Had lower dementia knowledge, were more likely to inaccurately believe that dementia is normal for aging, and were less likely to identify early signs of dementia.
- Lack of initiative to seek help may be a deficiency of appropriate language educational materials?
  - Also remember, willingness to follow doctor's rec has nothing to do with speaking a language or high education.

# Duration of residence and dementia literacy among Chinese Americans (IJSP 2014)

- 80 of the 151 respondents lived in the U.S. for < 20 years.
- Overall, the 2 groups did not differentiate on the total dementia knowledge scores.
- Except DOR < 20 years was associated with lesser understanding about how dementia may shorten the life expectancy after onset.

# Exploring the role of YouTube in delivering dementia education to older Chinese (AJP 2018)

- In the first 2-year study period, YouTube reached 4333 viewers with a total watch time of 26554 min (an avg of 6.13 min).
- In the Year 2 period, YouTube achieved a longer total watch time, number of viewers, and reaching out to age group of viewers aged 55 and above.



粵語健康專題免費講座

# 老人痴呆症 腦退化症 知多少？

講員  
**胡啟贊醫生**  
之臨床助理教授  
加州大學洛杉磯分校醫學院



你或你家人有沒有 ...

- 常忘記東西放在哪？
- 常認為東西被人偷走？
- 不容易叫出人名及物名？
- 剛做過的事轉頭即忘？
- 言語表達有問題？
- 判斷力變差、警覺性降低？

2012年6月16日 (六)  
晚上七時至九時

羅省華人宣道會主辦  
320 Cypress Ave.  
Alhambra, CA91801  
查詢電話: 626-300-9078  
(楊傳道或余弟兄)



# Dementia Health Promotion for Chinese Americans (Cureus 2017)



# Association between recognizing dementia as a mental illness and dementia knowledge among elderly Chinese Americans (WJP 2016)

- 29% of 316 elderly Chinese Americans identified dementia as a mental illness.
- When dementia was being perceived as a mental illness, such perception was associated with a higher level of baseline dementia understanding.
- There is the potential of improving older Chinese Americans dementia literacy by increasing awareness of its mental illness origin.



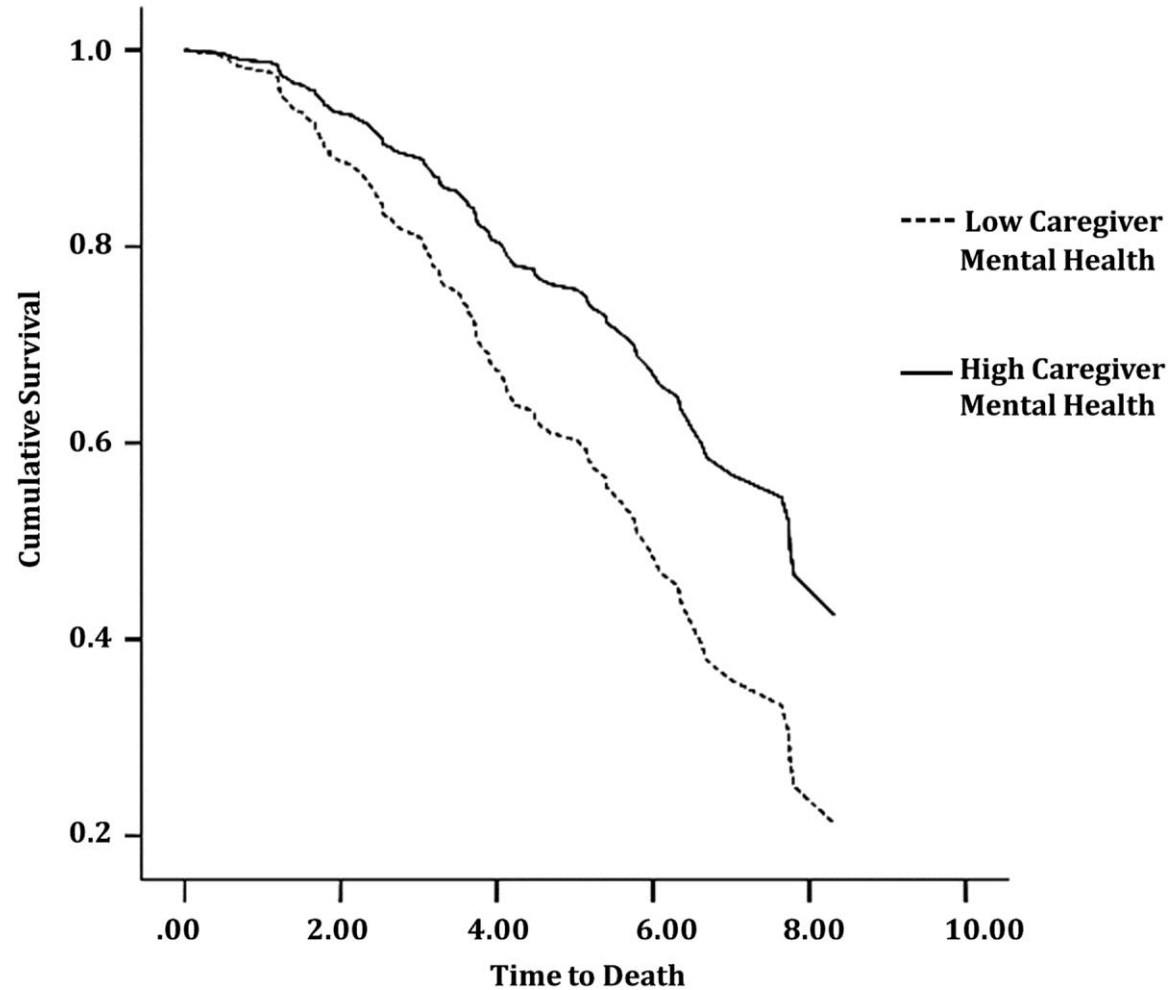
同一天

A DAY OF THE WONG'S

Dementia is Debilitating; Love is Longlasting.

Written & Directed by Jamie Oi Ping Chung

# Poor caregiver mental health predicts mortality (PNAS 2017)



**Table 1. Dementia Stigma Questionnaire Results (N = 89)**

<b>Question</b>	<b>n (%)</b>
1. Most employers will fire a 65-year-old employee with this illness.	68 (76.4)
2. This illness is different from other physical illnesses (e.g., high blood pressure).	30 (33.7)
3. Research on this illness is nothing but is a good way for pharmaceutical companies to make profits.	20 (22.5)
4. Increasing governmental spending to care for patient with this illness is a waste of money.	14 (15.7)
5. Most people will not want to be friends with people suffering from this illness.	44 (49.4)
6. It is difficult to communicate with people with this illness.	76 (85.4)
7. Only those with a low educational level would develop this illness.	11 (12.4)
8. I would avoid disclosing the truth if my relatives have this illness.	13 (14.6)
9. Patients with this illness would not understand other people's concern or worry.	61 (68.5)
10. A patient with this illness is dangerous to self.	37 (41.6)
11. A patient with this illness is dangerous to others.	32 (36.0)
12. A patient with this illness is impulsive and unpredictable.	56 (62.9)
13. Patients with this illness should be institutionalized.	41 (46.1)
14. Health insurance policies should not cover any costs of this illness.	23 (25.8)
15. Society should not treat patients with this illness with more tolerance.	10 (11.2)