

Exercise & Alzheimer's Disease

Reducing Risk & Palliative Care



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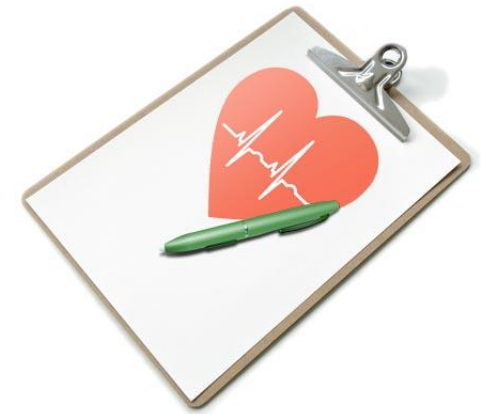
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Prevention

Palliative Care:

- » Memory
- » Neuropsychiatric symptoms
- » Physical capabilities



Types of physical activity

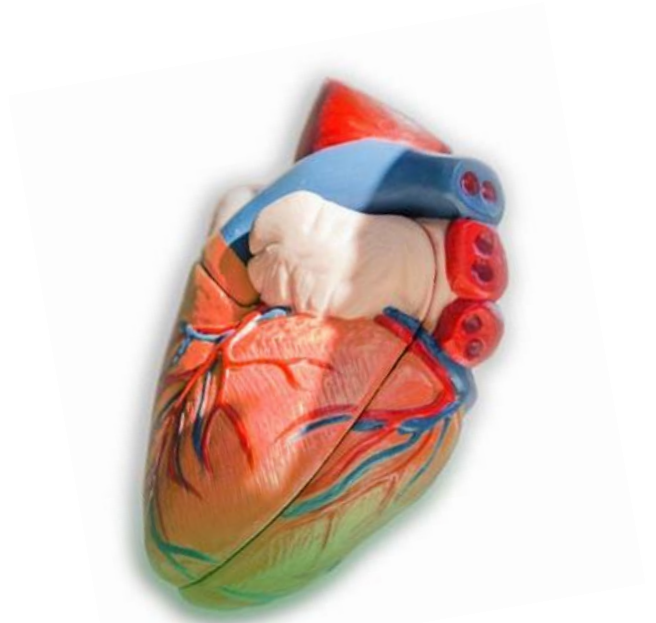
Poor fitness in 40's & 50's is linked to dementia in later life¹.

Physical activity may reduce the risk of Alzheimer's disease².

...possibly linked to cardiovascular health:

The **apoE4** gene allele:

- » Increases the risk of heart disease³.
- » Is the main genetic risk factor for Alzheimer's Disease⁴.



¹Alzforum Report, Alzheimer's Association International Conference 2018 (<http://bit.ly/2QpCoV9>)

²The Journals of Gerontology: 2017 Series A, 72(6): 733-739 (<http://bit.ly/2x5nzyP>)

³Curr Cardiovasc Risk Rep. 2010 Sep; 4(5): 361-368 (<http://bit.ly/2O7DBP6>)

⁴Alzheimers Res Ther. 2012; 4(4): 32 (<http://bit.ly/2x4djqC>)

‘Exercise is going to be an important adjunct to pharmacological treatment for patients with dementia’

Dr Kristian Steen Frederiksen, Danish Dementia Research Centre, Copenhagen



Aerobic exercise improves mild memory loss¹ and may also help in Alzheimer's disease².

Mild Memory Loss: Moderate aerobic exercise improved the score on the ADAS-Cog memory exam by 1.3 points as compared to 0.5 points for the drug Aricept (no longer reimbursed in France)³.

Alzheimer's Disease: Moderate/high intensity aerobic exercise, 3 times a week for 16 weeks improved memory in early Alzheimer's disease⁴.

¹Archives Italiennes de Biologie, 155: 54-62, 2017 (<http://bit.ly/2xdPmfV>)

²Archives italiennes de biologie 156(1-2):54-63, 2018 (<http://bit.ly/2Mlrpsk>)

³JAMA 300(9):1027-37, October 2008 (<http://bit.ly/2QIB7Oy>)

⁴J Alzheimers Dis. 2016;50(2):443-53 (<http://bit.ly/2x4iFCi>)

Almost 9/10 of older adults with Alzheimer's disease (AD) suffer from depression. Worsens isolation, behavioural issues and pain levels.



Physical activity can improve depression and sleep disturbances in patients with Alzheimer's Disease¹.

Depression can be helped by exercises as simple as assisted walking².

Physical activity can be considered as a supplement to drug treatment.

¹Int J Geriatr Psychiatry. 2018 Aug 29 (<http://bit.ly/2NCLa3g>)

²Aging Ment Health. 2008 Jan; 12(1): 72-80 (<http://bit.ly/2NAUFju>)

‘Organization of a professionally supervised and regularly accessible physical activity workshop should be included in the treatment and care of Alzheimer patients in nursing homes.’

Dr. Gilles Kemoun, Université de Poitiers



Université de Poitiers: 3 hours of aerobic exercise a week (walking, cycling and dance/step) improves memory and mobility in Alzheimer's patients – may reduce the risk of falls¹.

Aerobic exercise improves fitness and self-sufficiency. May postpone loss of independence for Alzheimer's Disease patients living at home².

¹Dement Geriatr Cogn Disord. 2010;29(2):109-14 (<http://bit.ly/2Qi6RnM>)

²Alzheimers Dement. 2016 Dec;12(12):1207-1215 (<http://bit.ly/2x32sNw>)

Moderate-to-high intensity aerobic exercise most effective.
More is better, but at least 3 hours a week.

Examples of exercise:

Mild memory loss: Ergometer bicycle, jogging, cross-training etc.

Alzheimer's disease: Assisted walking, shallow knee bends, toe rises and push-pulls, stepping exercises etc.



Adding a **social component** to the exercise program improves results¹.

¹J Aging Phys Act. 2015 Oct;23(4):659-68 (<http://bit.ly/2MnLePG>)

Aerobic exercise may be effective for:

- Prevention of Alzheimer's Disease.
- Improvement of mild memory loss.
- Improvement of Neuropsychiatric Symptoms (depression).

Physical activity is most effective early in disease:

- Physical fitness in 40's & 50's is important!
- Benefits are clearer for mild memory loss than for Alzheimer's Disease.

...but exercise can also improve quality of life at later disease stages.

