Preventie van Dementie: levensstijl of wonderpil

Prof Dr PP De Deyn

GDA 20 september 2024

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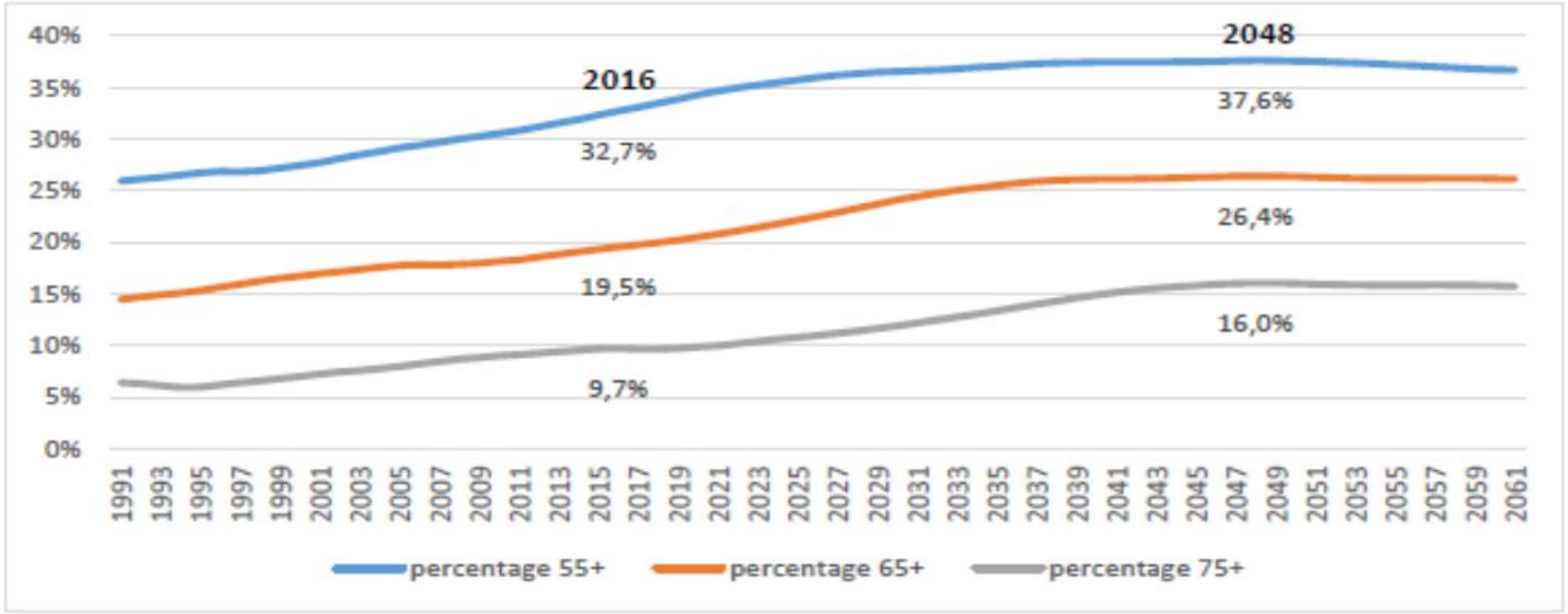
Oudere Bevolking Groeiend in België



Bron: 1991-2016: waarnemingen FOD Economie – Algemene Directie Statistiek (ADS); 2017-2061: vooruitzichten, Federaal Planbureau …

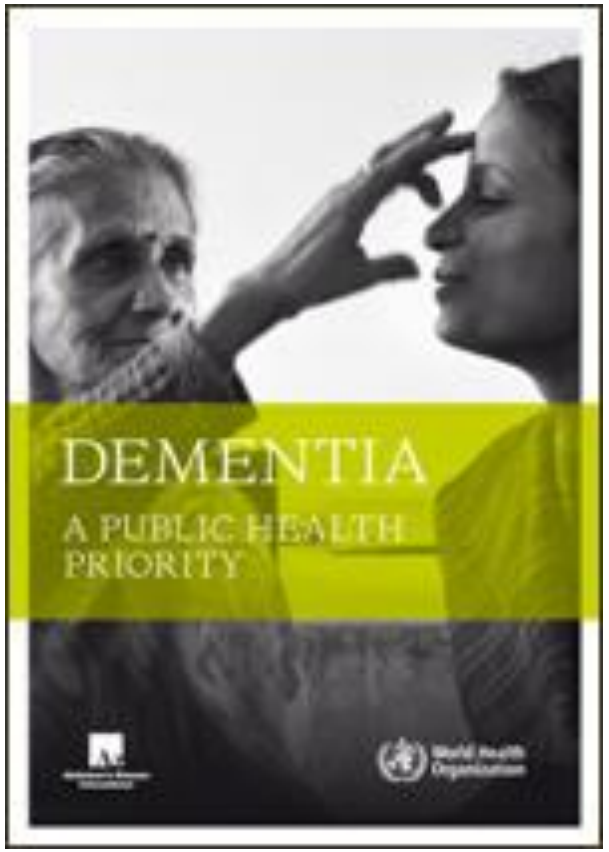
Dementie: a public health priority!

- Prevalentie stijgt
  - 270.000 → 670.000 (2050) in Nederland
  - 200.000 → 480.000 (2050) in België
  - 45 miljoen → 135 miljoen (2050) wereldwijd

- Voorlopig geen genezing mogelijk
- Dementie is één van de duurste ziekten
- Belasting mantelzorgers is hoog
  - grijze druk ↑

Preventie van dementie
= belangrijk!

Global action against dementia
G8 Dementia Summit
11/12/13
#G8dementia



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Risicofactoren voor dementie

- ApoE ε4 allele (7%)

- Educatie/opleiding (8%)
- Hoorverlies (9%)
- Hoge bloeddruk (2%)
- Obesitas (1%)
- Roken (5%)
- Depressie (4%)
- Eenzaamheid (2%)
- Diabetes (1%)
- Fysieke inactiviteit (3%)

Potentieel modificeerbare risicofactoren (PAR 35%)

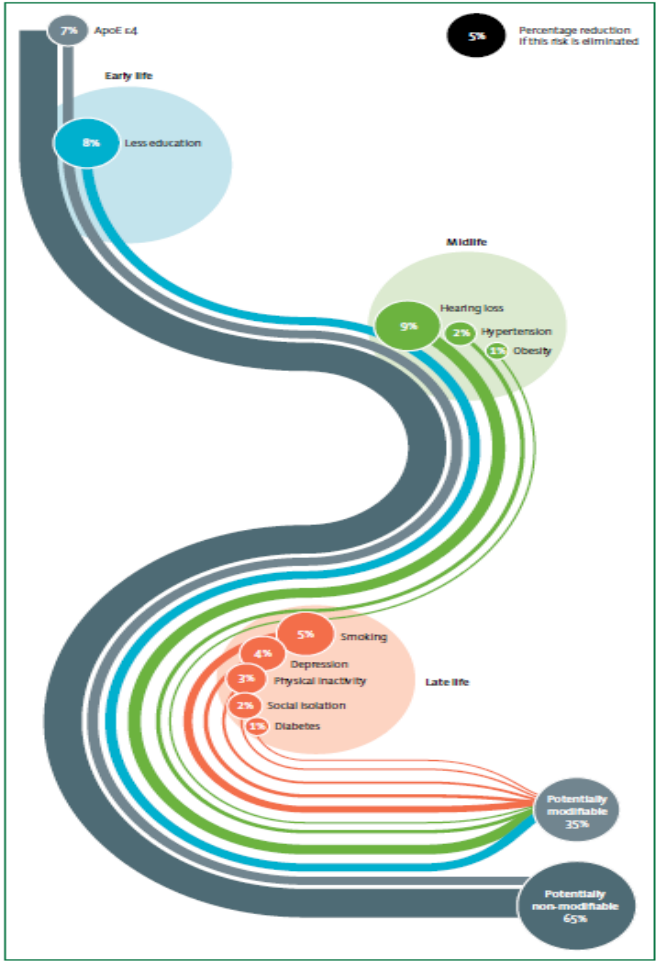

Figure 4: Life-course model of contribution of modifiable risk factors to dementia
Numbers are rounded to nearest integer. Figure shows potentially modifiable or non-modifiable risk factors.

PAR = Populatie Attributieve Risico's

Livingston G et al Lancet 2017

The Lancet Commissions

Dementia prevention, intervention, and care: 2024 report of the *Lancet* standing Commission

Gill Livingston, Jonathan Huntley, Kathy Y Liu, Sergi G Costafreda, Geir Selbæk, Suvarna Alladi, David Ames, Sube Banerjee, Alistair Burns, Carol Brayne, Nick C Fox, Cleusa P Ferri, Laura N Gitlin, Robert Howard, Helen C Kales, Mika Kivimäki, Eric B Larson, Noeline Nakasujja, Kenneth Rockwood, Quincy Samus, Kokoro Shirai, Archana Singh-Manoux, Lon S Schneider, Sebastian Walsh, Yao Yao, Andrew Sommerlad, Naaheed Mukadam**

Lancet 2024; 404: 572–628
Published Online July 31, 2024
https://doi.org/10.1016/S0140-6736(24)01296-0

See Comment page 501

*Contributed equally

Executive summary

The 2024 update of the *Lancet* Commission on dementia provides new hopeful evidence about dementia prevention, intervention, and care. As people live longer, the number of people who live with dementia continues to rise, even as the age-specific incidence decreases in high-income countries, emphasising the need to identify majority populations within them, so dementia is more likely to develop at an earlier age.

Evidence for specific risk factors suggests that all children should be educated, and a long duration of education is beneficial. It is important to be cognitively, physically, and socially active in midlife (ie, aged 18–65 years) and late life (ie, aged >65 years), with novel

Risicofactoren voor dementie

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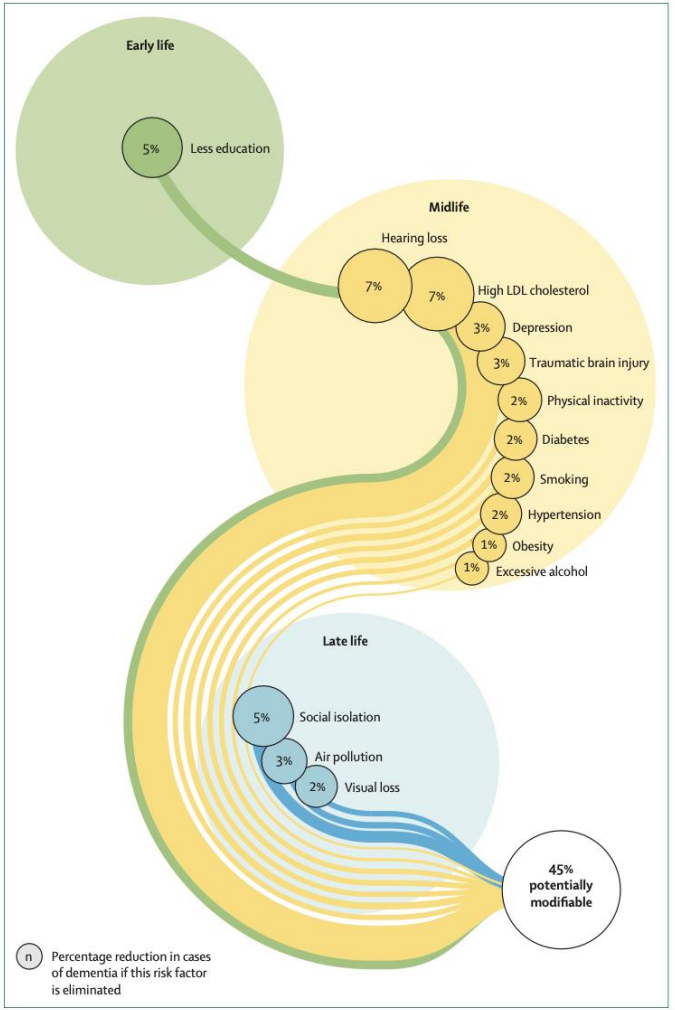
- Depressie (4%)
- Eenzaamheid (2%)
- Diabetes (1%)
- Fysieke inactiviteit (3%)
- Visus stoornissen (2%)
- Lipidenprofile (7%)

Potentieel modificeerbare risicofactoren (PAR 45%)



PAR = Populatie Attributieve Risico's

Livingston G et al Lancet 2024

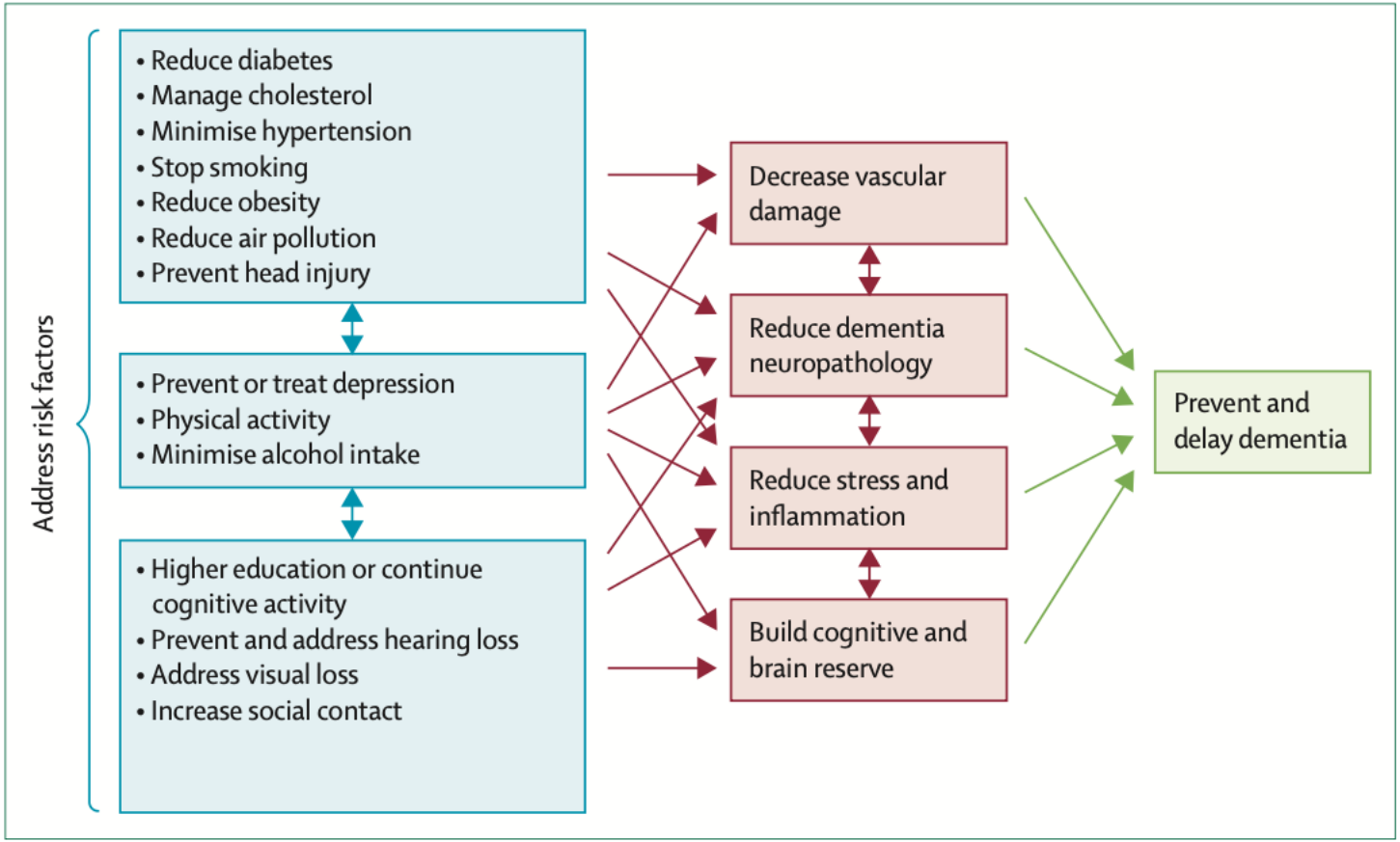


Figure 2: **Possible brain mechanisms for enhancing or maintaining cognitive reserve and risk reduction of potentially modifiable risk factors in dementia**

Oproep van 67 zorgprofessionals

- investeer in preventie van dementie -

Aanbevelingen:

- Informeren van het grote publiek, risicogroepen en medische professionals van het potentieel van dementie preventie (d.m.v. publiekscampagnes)
- Ondersteuning bij aanpassen van leefstijl d.m.v. e-health en gecombineerde leefstijl interventies voor mensen *at risk*
- Samenleving inrichten zodat voor iedereen een gezonde keuze gemakkelijker wordt (bijv suikertaks)

≡ Menu nrc.nl abonneer

opinie

Laten we de duurste ziekte aanpakken - dementie

Dementie is niet alleen een nare aandoening, maar ook een dure. Genoeg redenen om te investeren in preventie, schrijven *67 zorgprofessionals* . 'Minister, maak er werk van.'

Martijn van Winkelhof, Gerjoke Wilmink, Philip Scheltens, Marcel Olde Rikkert, Erik Scherder, Karine van 't Land, Edo Richard, Bertine Lahuis, Geert Jan Biessels & Ruben Wenselaar

21 oktober 2019

Leestijd 5 minuten

Opslaan in leeslijst

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Een paar weken geleden

De Standaard · Volgen
2 d. ·

Een hoorapparaat, stoppen met roken: "Je kunt veel doen om het risico op dementie te verlagen"

standaard.be

Helft gevallen van dementie is vermijdbaar of uitstelbaar

factors. The potential for prevention is high and, overall, nearly half of dementias could theoretically be prevented by eliminating these 14 risk factors. These findings provide hope. Although change is difficult and some associations might be only partly causal, our new evidence synthesis shows how individuals can reduce their dementia risk and we discuss how policy interventions might improve dementia prevention.

Leefstijl en preventie ?

Vrijsen *et al. BMC Public Health* (2021) 21:1344
https://doi.org/10.1186/s12889-021-11415-2

BMC Public Health

RESEARCH ARTICLE Open Access

Knowledge, health beliefs and attitudes towards dementia and dementia risk reduction among descendants of people with dementia: a qualitative study using focus group discussions

J. Vrijsen[1*], E. L. M. Maeckelberghe[2], R. Broekstra[1,3], J. J. de Vries[4], A. Abu-Hanna[5], P. P. De Deyn[4], R. C. Oude Voshaar[6], F. E. Reesink[4], E. Buskens[1], S. E. de Rooij[7] and N. Smidt[1]

Ze wisten het !!

Table 2 Identified risk factors for dementia by the focus group participants

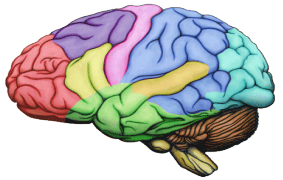
Non-modifiable risk factors	Modifiable risk factors	Modifiable risk factors (suspicions)
Age	Poor diet (e.g., salt)	Sleeping behaviour
Genetics	Physical inactivity	Stress
Family history	Smoking	Traumatic experiences
	Alcohol use	Mental wellbeing
	Cognitive activities	
	High cholesterol	
	Hypertension	
	Diabetes	
	Cardiovascular diseases	

The risk factors loneliness, obesity and renal dysfunction were not mentioned by the group.

Maar, is er iets wat we kunnen doen..???

Yes…The ‘Big Five’ for Optimal Brain Function

1. **Physical activity**
2. **Nutrition**
3. **Mental stimulation**
4. **Socialization**
5. **Creativity and attitude – stress reduction**



Maar is dat allemaal zo evidence based ?

Body & Mind…

For starters….*'What is good for your heart is ALSO good for your brain'* – the Heart – Brain axis

Share common risk factors...cholesterol, high blood pressure, obesity, arterial damage, plaque build up…SO…

…..when you watch your cholesterol, maintain a healthy weight, and exercise for your heart, your brain benefits too.

Here's why we need to move:

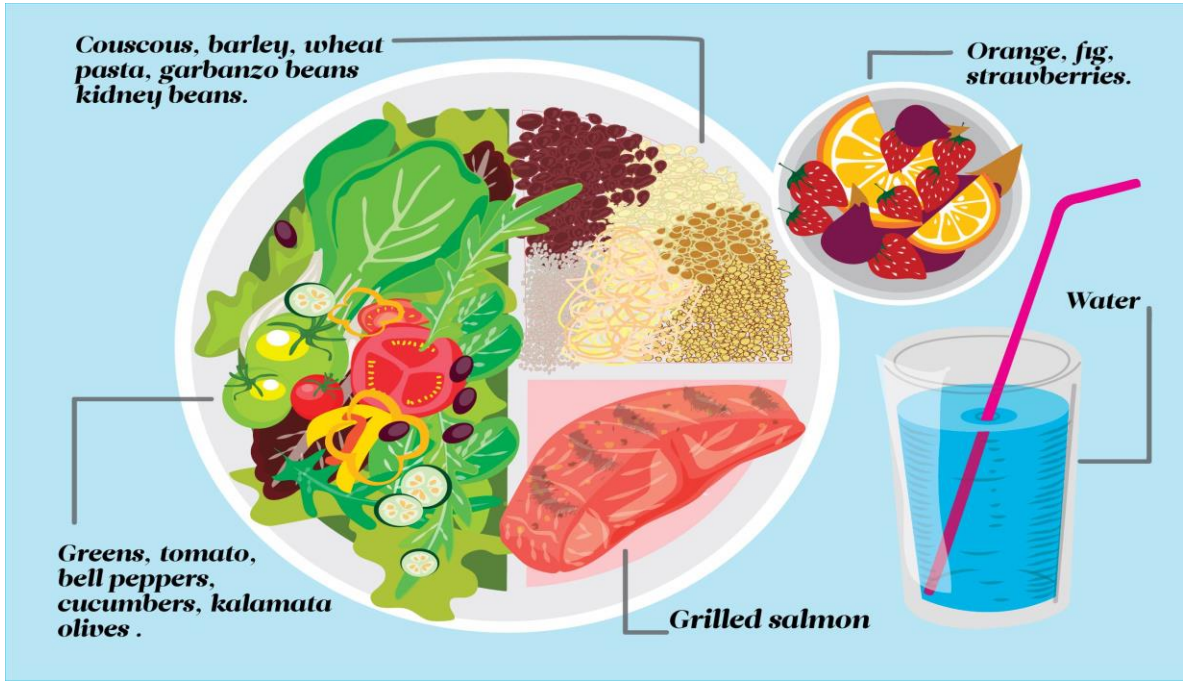
- The brain has over one billion neurons
- Heart beats roughly 100, 000 times / day
- 25% of the blood flow goes to the brain
- What is good for our hearts is also good for our brains

- Hersendood !! Denk even na !!

Physical Activity

Diet and Nutrition

Mediterranean Diet



Dash Diet

DASH diet (**Dietary Approaches to Stop Hypertension**)
is rijk aan fruit, groenten, volle granen en magere zuivelproducten

Cognitieve Stimulatie

Ways to stimulate your brain

- Learn a new language
- Read
- Learn a new skill
- Learn a new game
- Do word puzzles
- Drive a new way home (no GPS)
- Use your other hand to brush teeth/hair
- Embrace new and novel experiences

Social Engagement

How to remain socially engaged
Ook ruimte voor persoonlijke invulling

…and manage stress and spirit..

5: Creativity, attitude & spirit:

Just as your brain dictates your feelings, your feelings affect your brain > <u>stress hormones!!.</u>

Manage and be aware of stress:

- Antidepressants (depression as risk factor)
- Aromatherapy,
- diet and exercise (e.g. tai chi, yoga etc.)
- Meditation (mindfulness – the here and now)

Be creative – be human!

- Music (singing for the brain)
- Art (art therapy)
- Dancing

Music can: Reduce anxiety, aid sleep, lower blood pressure, reduce stress hormones.

The creative brain: memory for music and emotion are in a different part of the brain from memory about 'things' and is often intact much longer in even sever dementia

This means these intact abilities can be tapped into in dementia

Single Domain Lifestyle interventies toonden geen significante effecten – noch preventief noch symptomatisch

The Finger Study N= 1260

A 2 year multidomain intervention of diet, exercise, cognitive training, and vascular risk monitoring versus control to prevent cognitive decline in at-risk elderly people (FINGER): a randomised controlled trial

Tiia Ngandu, Jenni Lehtisalo, Alina Solomon, Esko Levälahti, Satu Ahtiluoto, Riitta Antikainen, Lars Bäckman, Tuomo Hänninen, Antti Jula, Tiina Laatikainen, Jaana Lindström, Francesca Mangialasche, Teemu Paajanen, Satu Pajala, Markku Peltonen, Rainer Rauramaa, Anna Stigsdotter-Neely, Timo Strandberg, Jaakko Tuomilehto, Hilkka Soininen, Miia Kivipelto

Interpretation Findings from this large, long-term, randomised controlled trial suggest that a multidomain intervention could improve or maintain cognitive functioning in at-risk elderly people from the general population.

Geen significant effect op geheugen

Lancet 2015; 385: 2255–63

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PreDIVA study

Effectiveness of a 6-year multidomain vascular care intervention to prevent dementia (preDIVA): a cluster-randomised controlled trial

Eric P Moll van Charante, Edo Richard*, Lisa S Eurelings, Jan-Willem van Dalen, Suzanne A Ligthart, Emma F van Bussel, Marieke P Hoevenaar-Blom, Marinus Vermeulen, Willem A van Gool*

Summary

Background Cardiovascular risk factors are associated with an increased risk of dementia. We assessed whether a

Lancet 2016; 388: 797–805

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PreDIVA study N= 3526, 70–78 jr

Procedures

Interventiegroep:

- ✓ 18 visites, om de vier maanden – 6 jaar
- ✓ per visite: nagaan van cardiovasculair relevante parameters :
  - ✓ rookgewoonten, fysische activiteit, gewicht, bloeddruk
  - ✓ Bloedonderzoek: glucose en lipidenprofiel
- ✓ Op basis van de resultaten:
  - ✓ Individuele levensstijladviezen en zo nodig interventies gebaseerd op vigerende richtlijnen
  - ✓ Wanneer aangewezen: medicatie voor hoge bloeddruk; lipidenstoornissen en type 2 diabetes en antithrombotica
  - ✓ Medicatie gebruik werd verbeterd zo nodig/

Controle groep:

- ✓ Gewone zorg en klassiek cardiovasculair risicomanagement

PreDIVA study Resultaten

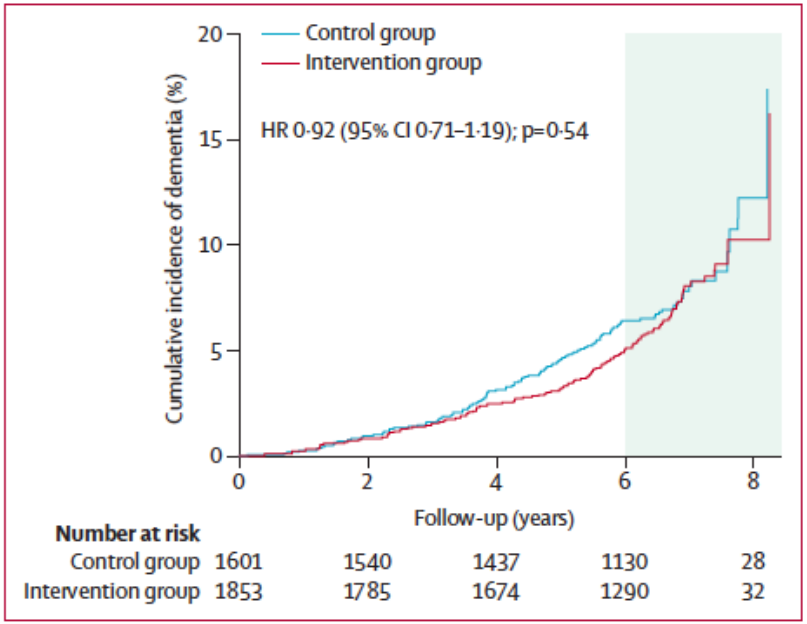

Figure 2: Kaplan-Meier plot of cumulative incidence of dementia

MAPT study N= 1,680, ≥70 jr

MAPT STUDY: A MULTIDOMAIN APPROACH FOR PREVENTING ALZHEIMER'S DISEASE: DESIGN AND BASELINE DATA

B. Vellas[1,2,3], I. Carrie[1], S. Gillette-Guyonnet[1,2,3], J. Touchon[4], T. Dantoine[5], J.F.

a multidomain lifestyle intervention (cognitive training and advice on nutrition and physical activity), administered alone or in combination with n-3 polyunsaturated fatty acid supplementation

MAPT study Resultaten

Interpretation

The multidomain intervention and polyunsaturated fatty acids, either alone or in combination, had no significant effects on cognitive decline over 3 years in elderly people with memory complaints. An effective multidomain intervention strategy to prevent or delay cognitive impairment and the target population remain to be determined, particularly in real-world settings.

Onze Nederlandse Vrienden

Project

Leefstijlonderzoek naar behoud van optimale cognitieve functie bij veroudering (MOCIA)

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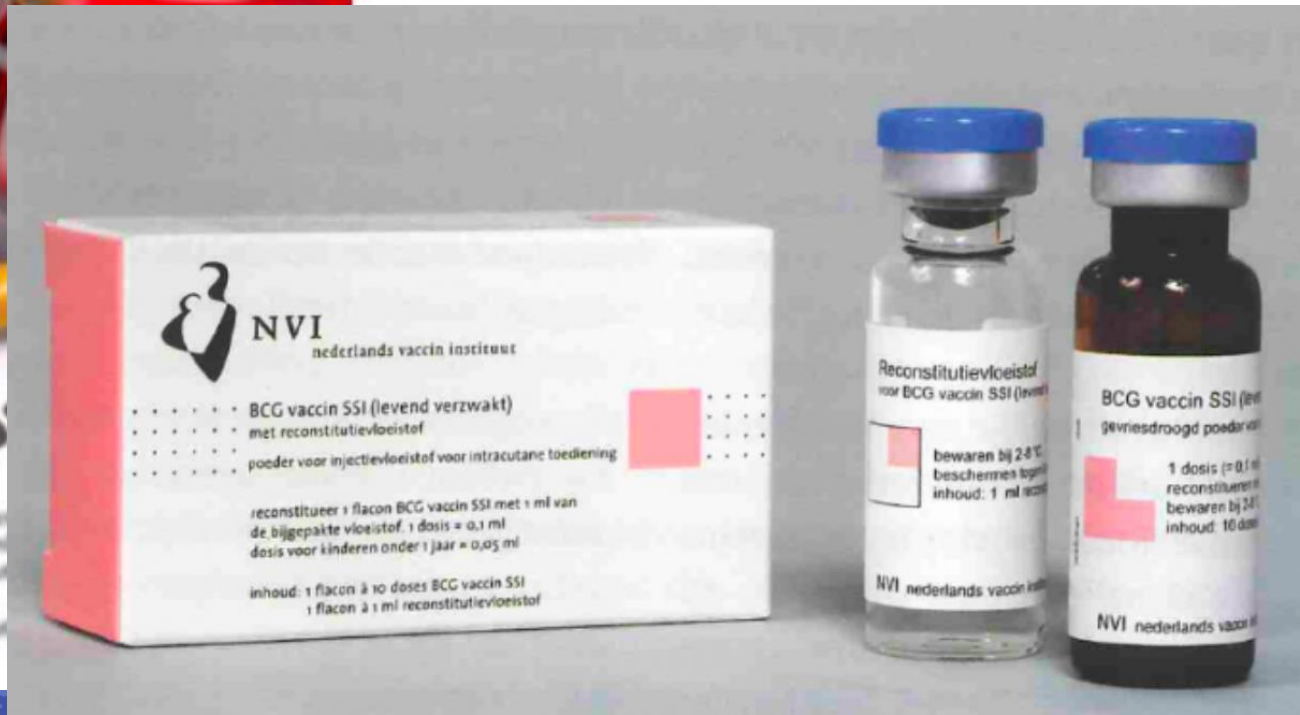
De TBC story : 1930

9 Openlucht-kuur in een lighal van het TBC-sanatorium Berg en Bosch te Bilthoven (R.K. Bouwblad, *1935*).

De TBC story : BCG Vaccin en tuberculostatica



Naar een ziekteproces modificiërende aanpak

Lecanemab

The NEW ENGLAND JOURNAL of MEDICINE

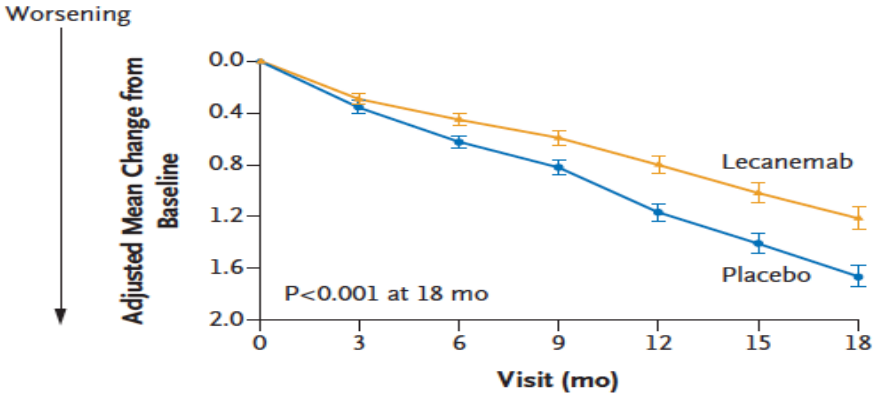
ORIGINAL ARTICLE

Lecanemab in Early Alzheimer's Disease

C.H. van Dyck, C.J. Swanson, P. Aisen, R.J. Bateman, C. Chen, M. Gee, M. Kanekiyo, D. Li, L. Reyderman, S. Cohen, L. Froelich, S. Katayama, M. Sabbagh, B. Vellas, D. Watson, S. Dhadda, M. Irizarry, L.D. Kramer, and T. Iwatsubo

Ziekteproces beïnvloedend effect

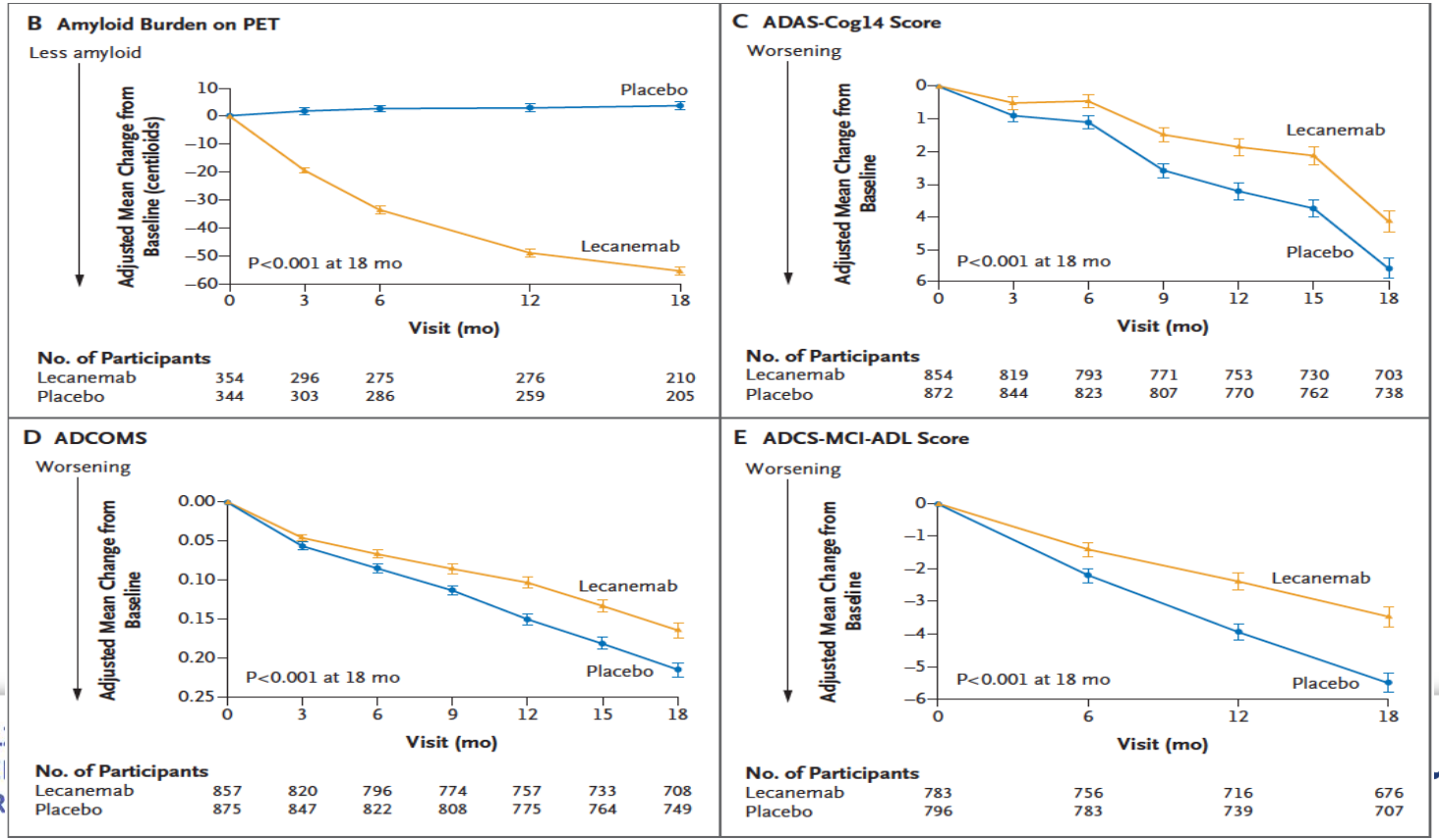
A CDR-SB Score



No. of Participants

Lecanemab	859	824	798	779	765	738	714
Placebo	875	849	828	813	779	767	757

Ziekteproces beïnvloedend effect



Concluderend

30% van het aantal gevallen met dementie kan voorkomen worden door een gezonde leefstijl. [illegible]ond eten, voldoende bewegen [illegible] met roken helpen bij de preve[illegible]

https://www.alzheimer-ne[illegible]

Oorzaken en voorkome[illegible]heimer Nederlan[illegible]

ARTICLE OPEN ACCESS

Twenty-seven-year time trends in dementia incidence in Europe and the United States

The Alzheimer Cohorts Consortium

Conclusion

The incidence rate of dementia in Europe and North America has declined by 13% per decade over the past 25 years, consistently across studies. Incidence is similar for men and women, although declines were somewhat more profound in men. These observations call for sustained efforts to finding the causes for this decline, as well as determining their validity in geographically and ethnically diverse populations.

Neurology® 2020;95:e519-e531. doi:10.1212/WNL.0000000000010022

Dr. Hofman

Deckers et al. Alzheimer's Research & Therapy (2024) 16:126
https://doi.org/10.1186/s13195-024-01495-8

Alzheimer's
Research & Therapy

RESEARCH Open Access

A multidomain lifestyle intervention to maintain optimal cognitive functioning in Dutch older adults—study design and baseline characteristics of the FINGER-NL randomized controlled trial

Kay Deckers[1*†], Marissa D. Zwan[2,3†], Lion M. Soons[1], Lisa Waterink[2,3], Sonja Beers[4], Sofie van Houdt[4,5], Berrit Stiensma[6], Judy Z. Kwant[6], Sophie C. P. M. Wimmers[2], Rachel A. M. Heutz[7], Jurgen A. H. R. Claassen[7,8,9], Joukje M. Oosterman[8], Rianne A. A. de Heus[7,10], Ondine van de Rest[4], Yannick Vermeiren[4], Richard C. Oude Voshaar[11], Nynke Smidt[6], Laus M. Broersen[12], Sietske A. M. Sikkes[2,3,13], Esther Aarts[8], MOCIA consortium, FINGER-NL consortium, Sebastian Köhler[1†] and Wiesje M. van der Flier[2,3,14†]

Abstract

Background Evidence on the effectiveness of multidomain lifestyle interventions to prevent cognitive decline in older people without dementia is mixed. Embedded in the World-Wide FINGERS initiative, FINGER-NL aims to investigate the effectiveness of a 2-year multidomain lifestyle intervention on cognitive functioning in older Dutch at risk individuals.

Methods Multi-center, randomized, controlled, multidomain lifestyle intervention trial with a duration of 24 months. 1210 adults between 60–79 years old with presence of ≥ 2 modifiable risk factors and ≥ 1 non-modifiable risk factor for cognitive decline were recruited between January 2022 and May 2023 via the Dutch Brain Research Registry and across five study sites in the Netherlands. Participants were randomized to either a high-intensity or a low-intensity intervention group. The multidomain intervention comprises a combination of 7 lifestyle components (physical activity, cognitive training, cardiovascular risk factor management, nutritional counseling, sleep counseling, stress management, and social activities) and 1 nutritional product (Souvenaid®) that could help maintain cognitive functioning. The high-intensity intervention group receives a personalized, supervised and hybrid intervention consisting of group meetings (on-site and online) and individual sessions guided by a trained lifestyle coach, and access to a digital intervention platform that provides custom-made training materials and selected lifestyle apps. The low-intensity intervention group receives bi-monthly online lifestyle-related health advice via the digital intervention

Een gezonde leefstijl dient uiteraard nagestreefd

EN

Er is hoop op een daadwerkelijke doorbraak met ziekteproces beïnvloedende medicinale interventies

Dank U

Vragen ?

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