



# Acknowledgement of Country

I acknowledge the Traditional Custodians of the lands on which we meet today, the Bundjalung people.

I pay my respects to Elders past, present and emerging, and recognise and extend that respect to all Aboriginal and Torres Strait Islander peoples here today.

I recognise the ongoing contributions of Aboriginal and Torres Strait Islander peoples to our community.

Model generated by AI: *abstract design symbolizing cultural heritage and connection to the land.*



# Excessive alcohol: a potentially modifiable risk factor for dementia



‘Heavy drinking is associated with brain changes, cognitive impairment, and dementia, a risk known for centuries’ (Lancet, 2020)

Wernicke’s Encephalopathy / Korsakoff’s Syndrome

[\(https://jamanetwork.com/\)](https://jamanetwork.com/)

[\(https://en.wikipedia.org/\)](https://en.wikipedia.org/)

Carl Wernicke (1881) identified:

- ophthalmoplegia (eye movement abnormalities)
- ataxia (lack of muscle coordination)
- confusion – thiamine (B1) deficiency, often associated with chronic alcohol abuse or malnutrition.

Sergei Korsakoff (late C19), a neuropsychiatrist identified:

- chronic memory disorder caused by thiamine (B1) deficiency, often associated with prolonged, excessive alcohol consumption
  - Anterograde amnesia (new memories)
  - Retrograde amnesia (loss of pre-existing memories)
  - Confabulation

# Alcohol use and dementia: a systematic scoping review

Jürgen Rehm, Omer S. M. Hasan, Sandra E. Black, Kevin D. Shield and Michaël Schwarzingger



From 350 results, 28 systematic reviews were identified:

- 20 on the associations between the level of alcohol use and the incidence of cognitive impairment/dementia,
- 6 on the associations between dimensions of alcohol use and specific brain functions, and
- 2 on induced dementias (TBI / exposure to toxins)
  - although causality could not be established, light to moderate alcohol use in middle to late adulthood was associated with a decreased risk of cognitive impairment and dementia.
  - heavy alcohol use was associated with changes in brain structures, cognitive impairments, and an increased risk of all types of dementia.
  - an alcohol consumption threshold above which cognition would be impaired (reversibly/irreversibly) may exist but has not yet been identified.

# Alcohol-related and alcohol-induced dementia

Jürgen Rehm, Omer S. M. Hasan, Sandra E. Black, Kevin D. Shield and Michaël Schwarzinger



## A summary of key points

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1. ethanol and its metabolite acetaldehyde have a direct neurotoxic effect, leading to permanent structural and functional brain damage.
2. chronic heavy alcohol use can result in thiamine deficiency by causing inadequate nutritional thiamine intake, decreased absorption of thiamine from the gastrointestinal tract, and impaired thiamine utilization in the cells (Wernicke–Korsakoff syndrome). Treatment with administration of thiamine reverses many of the W–K syndrome symptoms, although in some people certain chronic neuropsychiatric consequences of a previous thiamine deficiency persist even with appropriate treatment.
3. heavy alcohol use is a risk factor for other conditions that can also damage the brain: hepatic encephalopathy in patients with cirrhotic liver disease, epilepsy, or head injury.
4. heavy alcohol use is indirectly associated with vascular dementia because of its associations with cardiovascular risk factors and diseases such as high blood pressure, ischemic heart disease, cardiomyopathy, atrial fibrillation, and stroke.

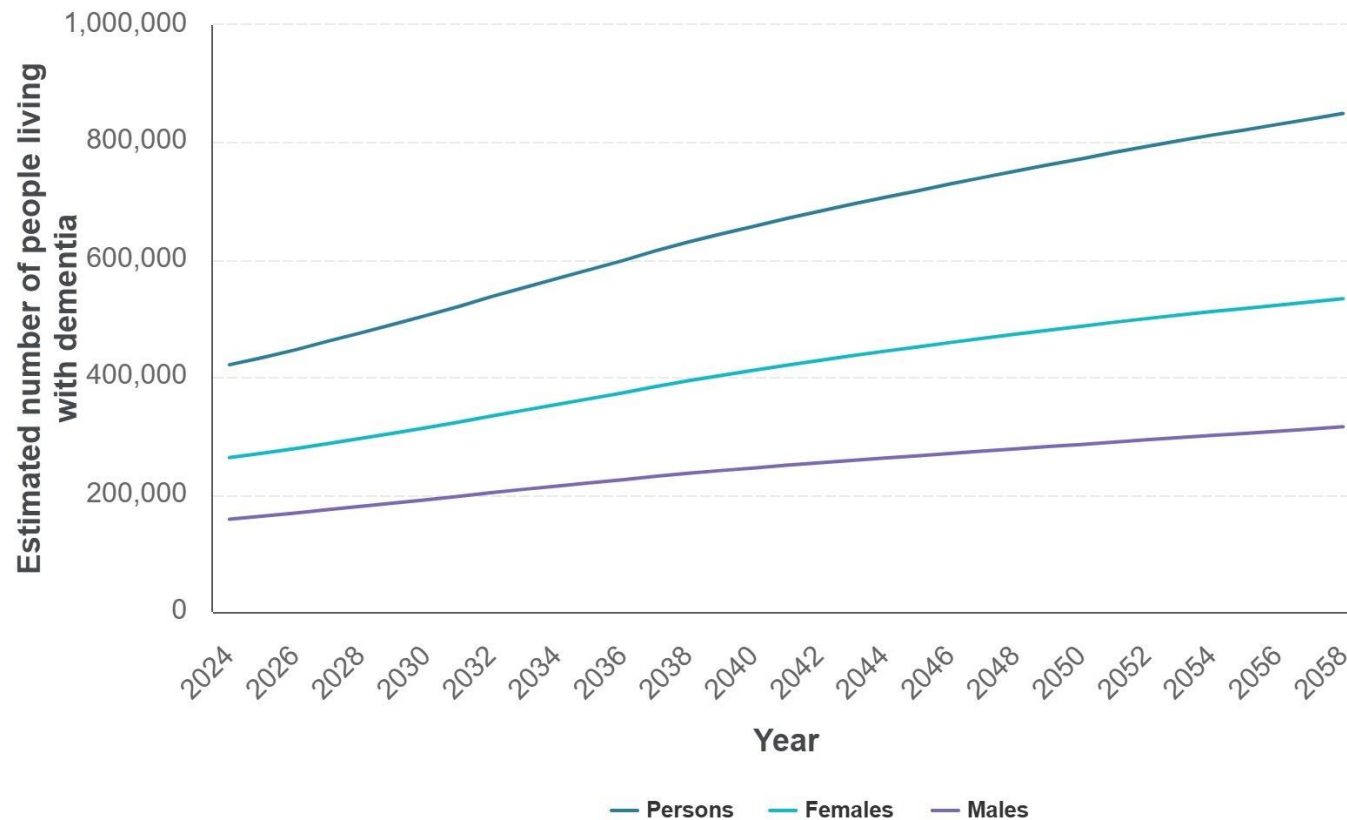
The above associations have been identified as causal and have been corroborated in studies of people with AUDs.

Finally, heavy alcohol use is associated with lower levels of education, tobacco smoking, and depression, all of which are risk factors for dementia.

# Current and projected numbers of those living with dementia in Australia

# Current distribution of Australian Government funding for dementia

**Australians living with dementia between 2024 and 2058: estimated number by sex and year**



## Expenditure on dementia support services

There are a number of dementia support programs and initiatives funded by the Australian Government and delivered by individual organisations. These programs are designed to assist people with dementia and their carers, as well as the dementia care workforce.

In 2020-21, the Australian Government provided almost \$126 million to fund dementia support programs and initiatives under the Dementia and Aged Care Services Fund. This was equivalent to 3.4% of the total direct health and aged care system expenditure on dementia and included:

- \$56.6 million for the [Specialist Dementia Care Program](#)
- \$22.5 million for [Severe Behaviour Response Teams](#)
- \$20.7 million for the [Dementia Behavioural Management Advisory Service](#)
- \$13.8 million for the [National Dementia Support Program](#)
- \$12.4 million for the National Dementia Training Program - a national approach to accredited education, upskilling and professional development in dementia care delivered by [Dementia Training Australia](#).

For further information on the Dementia and Aged Care Services Fund and provision of dementia support services in recent years, refer to [Overview of dementia support services and initiatives](#), [National policy response to dementia and Behaviour Support Programs](#).

**Source:** The AIHW estimates were derived using prevalence rates from the 2015 World Alzheimer report and Withall et al. 2014, and the ABS Series B population projections

<https://www.aihw.gov.au/reports/dementia/dementia-in-aus/contents/health-and-aged-care-expenditure-on-dementia/expenditure-on-aged-care-services>

It's never completely safe

## Excessive alcohol consumption

Know the risk factors for dementia



## Department of Health and Aged Care

How much you drink is your choice, but you should know that drinking is never free of risk. The less you drink, the lower your risk of harm from alcohol.

<https://www.health.gov.au/topics/alcohol/about-alcohol/how-much-alcohol-is-safe-to-drink>

Source: Livingston et al. A, et al. Dementia prevention, intervention, and care: 2020 report of the Lancet Commission

#NeverTooEarly #NeverTooLate #ReduceRiskNow







<https://www.newscientist.com/article/mg25033300-400-how-to-keep-your-brain-healthy-the-7-things-you-should-do-every-day/>

## Maintain Healthy Brain

1. Stay mentally active
2. Diet – avoid excessive alcohol consumption
3. Exercise regularly
4. Maintain social connections

### Access help

#### Assistance

- National Alcohol hotline 1800 250 015
- Lifeline 13 11 14

#### Alcohol think again

#### Tips to reduce your drinking at home:

- Swap to low or no alcohol alternatives
- Alcohol-free days each week

<https://alcoholthinkagain.com.au/alcohol-and-your-health/reduce-your-drinking>

# Interventions to address alcohol as a modifiable risk

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1. Assessment and Education
2. Goal Setting and Planning
3. Support and Counselling
4. Referrals and Resources
5. Monitoring and Follow-Up

Adjust Plans as Needed: Be flexible and adjust the plan based on the individual's needs and progress.

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## REFERENCES (INTERNATIONAL)

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Gill Livingston, Jonathan Huntley, Andrew Sommerlad, David Ames, Clive Ballard, Sube Banerjee, Carol Brayne, Alistair Burns, Jiska Cohen-Mansfield, Claudia Cooper, Sergi G Costafreda, Amit Dias, Nick Fox, Laura N Gitlin, Robert Howard, Helen C Kales, Mika Kivimäki, Eric B Larson, Adesola Oggunniyi, Vasiliki Orgeta, Karen Ritchie, Kenneth Rockwood, Elizabeth L Sampson, Quincy Samus, Lon S Schneider, Geir Selbæk, Linda Teri, Naaheed Mukadam. *Dementia prevention, intervention, and care: 2017 report of the Lancet Commission. (Note: editions 2 (2020) and 3 (2024) have also been referred to in this presentation).* [www.thelancet.com](http://www.thelancet.com) Vol 396 August 8, 2020

Michaël Schwarzinger, Bruce G Pollock, Omer S M Hasan, Carole Dufouil, Jürgen Rehm, for the QalyDays Study Group. *Contribution of alcohol use disorders to the burden of dementia in France 2008–13: a nationwide retrospective cohort study.* [www.thelancet.com/public-health](http://www.thelancet.com/public-health) Vol 3 March 2018

Alain Braillon (braillon.alain@gmail.com) Amiens University Hospital, 80000 Amiens, France. *Alcohol consumption and cognitive decline: the elephant in the room?* [www.thelancet.com/public-health](http://www.thelancet.com/public-health) Vol 3 May 2018

Ronald Devere, MD FAAN (director of an Alzheimer's disease (AD) and memory disorders centre, Austin, Texas). *The Cognitive Consequences Of Alcohol Use.* October 2016 *Practical Neurology.* <https://pn.bmj.com/>

Jürgen Rehm, Omer S. M. Hasan, Sandra E. Black, Kevin D. Shield and Michaël Schwarzinger. *Alcohol use and dementia: a systematic scoping review.* Rehm et al. *Alzheimer's Research & Therapy* (2019) 11:1  
<https://doi.org/10.1186/s13195-018-0453-0>

## REFERENCES (AUSTRALIA)

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Louise Mewton, Rachel Visontay, Nicholas Hoy, Darren M. Lipnicki, Matthew Sunderland, Richard B. Lipton, Maëlen Guerchet, Karen Ritchie, Jenna Najar, Nikolaos Scarmeas, Ki-Woong Kim, Steffi Riedel Heller, Martinvan Boxtel, Erin Jacobsen, Henry Brodaty, Kaarin J. Anstey, Mary Haan, Marcia Scazufca, Elena Lobo, Perminder S. Sachdev, Collaborators from the Cohort Studies of Memory in an International Consortium (COSMIC). *The relationship between alcohol use and dementia in adults aged more than 60years: a combined analysis of prospective, individual-participant data from 15 international studies*. *Addiction* SSA (published by John Wiley & Sons Ltd on behalf of Society for the Study of Addiction). Received: 19 December 2021, Accepted: 4 August 2022 <https://onlinelibrary.wiley.com/doi/ful/10.1111/add.16035>

Sara E Dingle, Steven J Bowe, Melissa Bujtor, Catherine M Milte, Robin M Daly, Kaarin J Anstey, Jonathan E Shaw and Susan J Torres. *Associations between data-driven lifestyle profiles and cognitive function in the AusDiab study*. *BMC Public Health* (2022) 22:1990 <https://doi.org/10.1186/s12889-022-14379-z>

Professor Laurie Brown, Erick Hansnata and Hai Anh La (NATSEM at the Institute for Governance and Policy Analysis, University of Canberra). *Economic Cost of Dementia in Australia 2016-2056*. IGPA, University of Canberra 2017. <http://www.canberra.edu.au/centres/ucigpa> or <http://www.natsem.canberra.edu.au/>

Clarissa Giebel (National Institute of Health Research Applied Research Collaboration North West Coast (NIHR ARC NWC), Liverpool, UK and Institute of Population Health Sciences, University of Liverpool, Liverpool, UK). *Current dementia care: what are the difficulties and how can we advance care globally?* *BMC Health Services Research* (2020) 20:414 <https://doi.org/10.1186/s12913-020-05307-1>

Dementia Australia: *Dementia facts and figures* <https://www.dementia.org.au/>

vascular dementia: <https://www.dementia.org.au/about-dementia/vascular-dementia>,

frontotemporal dementia: <https://www.dementia.org.au/about-ementia/frontotemporal-dementia>

Lewy body disease <https://www.dementia.org.au/about-dementia/lewy-body-dementias>.

Prevalence summary – National, State and Territory – all forms of dementia <https://www.dementia.org.au/sites/default/les/2024-03/Prevalence-Data-2024-updates-Allforms-of-dementia.pdfaustralia>.

Bauer M, Fetherstonhaugh D, Blackberry I, Farmer J, Wilding C. *Identifying support needs to improve rural dementia services for people with dementia and their carers: a consultation study in Victoria, Australia* *Australian Journal of Rural Health*. 2019. <https://doi.org/10.1111/ajr.12444>

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