

Oral presentation

## Wine, alcohol and cognition

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Alcohol is both a tonic and a poison. It all depends upon the dose. However, the beneficial effects of regular consumption of modest levels of alcohol ( $\leq 24$  g/day) have been fully demonstrated in the prevention of coronary heart disease (CHD) and substantially shown in reducing the risks of ischemic and hemorrhagic stroke [1,2]. The evidence points to wine being better than beer or distilled spirits because it contains grape-derived polyphenols with antioxidant properties, more so in red than in white wine. There is much emerging data, mainly from population-based epidemiological studies, that the risks of cognitive decline in older adults and of dementia are also reduced by regular consumption of alcohol particularly (red) wine [2]. The risks for CHD, stroke, cognitive decline and dementia follow a J-shaped curve – modest drinkers fare better than both abstainers and heavy drinkers. Plausible biological mechanisms for the beneficial influence of alcohol and wine upon diverse disease states include effects upon glucose metabolism as well as anti-thrombotic, anti-inflammatory and anti-atherosclerotic effects. For Alzheimer's disease, where five studies from geographically diverse populations (Denmark, France, Italy, the Netherlands and the USA) have suggested reduced risk in modest and regular drinkers, it is highly likely that the antioxidant and anti-inflammatory properties of red wine in particular play major roles.

### References

1. Reynolds K, Lewis LB, Nolen JDL, et al.: **Alcohol consumption and the risk of stroke: a meta-analysis.** *JAMA* 2003, **289**:579-588.
2. Pinder RM, Sandler M: **Alcohol, wine and mental health: focus on dementia and stroke.** *J Psychopharmacol* 2004, **18**:449-456.