Dr. Rob’s Science Connection -- Enhancing Brain Health

## Is Alcohol Good or Bad for Our Brains and Memory?

## Issue 5

Is alcohol good or bad for our brains and memory? *It depends.* It largely depends on how much one drinks, genetics, and maybe even gender. There is evidence that one to two drinks a day can have a protective effect on the brain, in terms of a reduced likelihood of developing dementia or having a stroke (strokes can lead to vascular dementia, which is the second most common type of dementia, after Alzheimer’s). In a widely publicized study known as the Rotterdam Study, researchers followed thousands of older adults and found a significant decrease in their chance of getting dementia if they consumed a small amount of alcohol most days relative to people who almost never drink, but the risk of dementia increased for heavier drinkers. In a 2009 study 1, researchers combined the data from many published studies and reported a 25%-28% reduction in dementia relative to abstainers. The beneficial effects of alcohol may come from reducing inflammation, increasing HDL cholesterol, and increases insulin sensitivity. 1, 2 Alcohol, particularly red wine, is also high in antioxidants, which could increase the longevity of our cells.

But, like many drugs, there are always risks that need to be weighed relative to possible benefits. And, it is important to note that currently there isn’t compelling evidence that starting to drink after years of abstaining is going to have beneficial effects. Particularly worrisome, is the fact that heavy alcohol consumption can even cause cognitive impairment. For example, Wernicke-Korsakoff Syndrome is a type of dementia that is caused by heavy drinking over a long period of time. It appears that this type of dementia occurs because of a thiamin or Vitamin B1 deficiency that is common in heavy drinker and that deficiency leads to atrophy in an important brain structure involved in making new memories (note low Vitamin B absorption can be the cause of a number of memory disorders, regardless of alcohol consumption). Older adults are also at increased risk of falling if they abuse alcohol. 3 And, certain health conditions might be worsened by heavy drinking including diabetes, high blood pressure, congestive heart failure, liver problems, osteoporosis, mood disorders, and it may even increase breast cancer risk in women.

Is Alcohol Good or Bad for Our Brains and Memory? Clearly, it depends on many factors, especially the quantity of the alcohol. Maybe the old cliché, *Everything In Moderation* applies here as well.

Anstey KJ, et al. Alcohol consumption as a risk factor for dementia and cognitive decline: meta-analysis of prospective studies. Am J Geriatr Psychiatry, 2009, 17:542-555.

2. Peters R, et al. Alcohol, dementia and cognitive decline in the elderly: a systematic review. Age and Ageing, 2008, 37:505-512.

3 Weyerer S, Schäufele M, Zimber A. Alcohol problems among residents in old age homes in the city of Mannheim, Germany. *Australian And New Zealand Journal Of Psychiatry* [serial online]. December 1999;33(6):825-830.

4. <http://www.niaaa.nih.gov/alcohol-health/special-populations-co-occurring-disorders/older-adults>

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*These articles are written for community members to educate them about brain health. The articles can be used in cognitive stimulation classes or in community newsletters. Anyone can use these articles, without requesting permission, as long as Dr. Rob Winningham is given credit. The articles can be reformatted but the text cannot be edited.*