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Moderate drinking linked to brain damage

VOCABULARY

atrophy = waste away, especially through degeneration of cells.

keep one's bearings =

To maintain an understanding of one's position relative to surroundings. (See also "get my bearings" and "lose my bearings" - discuss with instructor!

> **pint** = 568ml (UK) or 473ml (US)

Read the article overleaf and discuss these questions:

- How many "units" of alcohol do you drink in a week? Is it more or less than the European recommendations?
- 2. Has this amount changed over your life? Do you drink more or less now than before? When did you drink the most?
- 3. Does the Japanese government make recommendations for drinking? What are they? How do they compare to Europe?
- 4. After reading this article, do you think you will change your drinking habits? If so, how? If not, why not?
- 5. Are you going to Yaruki-jaya this evening? Why? Why not?

VOCABULARY

threshold = A boundary, after which something will begin or end

abstinence =

The practice of restraining oneself from indulging in something, typically alcohol

robust = Strong and healthy, vigorous Even moderate drinking is linked to brain damage and a slight decline in mental skills, according to a study released Wednesday that calls into question many national alcohol guidelines.

Men and women who consume 14-to-21 drinks a week over decades are two to three times more likely than non-drinkers to show **atrophy** in the hippocampus, a part of the brain that governs memory and the ability to **keep one's bearings**, said the study, published in the medical journal BMJ.

They also performed more poorly on a specific verbal test, though other language functions appeared to remain unchanged.

A single drink was defined as containing 10 milliliters (eight grams) of pure alcohol -- the equivalent of a large glass of wine, a **pint** of 5% beer, or a shot of spirits such as whisky or vodka.

Last year, the British government revised its guidelines for alcohol consumption, lowering the recommended maximum for men and women to 14 "units," or drinks, spread out over a week.

In other countries, that **threshold** is set higher for men: 35 units in Spain, 24.5 in the United States, 21 in Denmark and Ireland, and 19 in New Zealand.

For women, however, guidelines for maximum weekly consumption in all of these nations, except for Spain, is 14 drinks or less.

The negative impact of heavy drinking on the brain is well documented, but research on potential damage from "moderate" consumption -- up to now defined as two or three drinks a day, on average -- has been scant and inconclusive.

To probe further, researchers at the University of Oxford and University College London combed through data on 550 men and women monitored during 30 years as part of the so-called Whitehall II study.

Volunteers reported periodically on their drinking habits, and scientists carried out brain tests at regular intervals. None were alcoholics at the outset. The effect of 14-to-21 units of alcohol on the hippocampus was clearly shown by imaging technology.

Mental performance tests were less conclusive: only one measuring language fluency showed a clear impact, while others showed no decline in brain function.

"Alcohol consumption -- even at moderate levels -- is associated with adverse brain outcomes," the researchers concluded.

The findings "support the recent reduction in alcohol guidance in the United Kingdom, and question the current limits recommended in the United States," they wrote.

Nor did the scientists uncover any "evidence of a protective effect of light drinking over **abstinence** on brain structure or function," a tentative conclusion of earlier research.

Because the new study was observational and not experimental, no firm conclusions could be drawn about cause and effect. The authors also acknowledged that the sample size was small.

Outside experts gave the study mixed reviews.

"It shows evidence for 'hidden' damage to the brain," commented Paul Matthews of Imperial College London, who highlighted the value of the advanced imaging techniques used.

Jennifer Wild, a senior researcher in clinical psychology at the University of Oxford, said the results showed a "**robust** link" between what most people would consider casual drinking and brain degeneration later in life.

Other scientists expressed scepticism about some of the methodology, and the self-reporting of alcohol consumption.

"Over the 30-year period, weekly intake did not increase in the study participants," noted Carl Heneghan, director of the Centre for Evidence-Based Medicine at the University of Oxford.

This flies in the face of a known pattern of increasing consumption through early adulthood, and a gradual tapering off into older age, he pointed out.