Excess Alcohol Is Very Dangerous to the Brain and is Killing People

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Alcohol has many well-known negative effects on our health, but a new paper this week highlights what are likely the most harmful periods during a lifetime to have alcohol in your system, at least when it comes to our brains.

The paper, published as an editorial in the BMJ on Friday, was written by researchers from the UK and Australia: Louise Mewton, Briana Lees, and Rahul Tony Rao. Mewton and Rao have studied the aging brain, while Lees specializes in mental health and substance use. Together, they sum up much of the current research on how alcohol can influence the brain and body over the course of our lives.

As you might expect, exposure to alcohol can be especially harmful in the earliest stages of development, starting from when a fetus is in the womb. Heavy alcohol use during pregnancy is known to raise the odds of children being born with lifelong neurological impairment and other congenital defects—a condition called fetal alcohol spectrum disorder. The authors also point to research suggesting that even light-to-moderate drinking during pregnancy could have subtle negative effects on a child’s brain health later on.

The next peak of alcohol danger seems to come when we’re in our mid-to-late teens. Research has shown that 15- to 19-year-olds often start their alcohol habit by binge drinking, and this heavy drinking has been linked to decreased brain volume, nerve cell connectivity, and small declines in cognitive function, the authors note.
Finally, and perhaps most surprisingly, there’s old age (65 and above). Binge drinking is less common in older people. But those with lengthy periods of heavy drinking are known to have an increased risk of dementia and cognitive decline as they reach their golden years.

As the authors point out, there’s still more research that needs to be done in showing how much alcohol use is needed to negatively affect the brain at various points of our lives. Some studies, for instance, have found that light alcohol use is actually linked to improved brain health in older people. But these sorts of observational studies have their limitations, and other recent research has suggested that there’s truly no “healthy” level of alcohol use—just relatively lower levels of risk. Even light alcohol consumption has been linked to a higher cancer risk, for instance.

Though a world without alcohol seems unimaginable (and, given what happened the last time people tried to outlaw it, problematic to say the least), we could all probably stand to benefit from policies that make it easier for us to cut down on how much we drink regularly, no matter how young or old we are.

“A lifecourse perspective on brain health supports the formulation of policy and public health interventions to reduce alcohol use and misuse at all ages,” the authors wrote. “This could increase longevity and quality of life by reducing the prevalence of fetal alcohol spectrum disorders, aberrant neurocognitive development in adolescence, and dementia in later life.”

**Alcohol Is Killing More Americans Than Ever**

More and more Americans are drinking themselves to death. A new study this week finds there were around 72,000 alcohol-related deaths among people over the age of 16 in 2017—more than double the number of similar deaths recorded two decades earlier.
The study, published Wednesday in Alcoholism: Clinical & Experimental Research, relies on death certificate data. It found there were almost 1 million alcohol-related deaths among people over age 16 documented in the U.S. between 1999 and 2017. In 1999, there were 35,914 such deaths, amounting to a rate of 16.9 deaths per every 100,000 people over 16 that year; in 2017, the number ballooned up to 72,558, or a rate of 25.5 deaths per 100,000 people.

For context, just over 70,000 people in the U.S. died of overdose from illicit drugs like heroin and fentanyl in 2017—a reality that’s rightly been recognized as a dire public health crisis. Across all recreational drugs, cigarette smoking is the only thing deadlier than alcohol, with an estimated half a million deaths annually.

Of these alcohol-related deaths in 2017, roughly half were attributable to liver disease or overdose, either from alcohol alone or in combination with other drugs. And mirroring the rise in overdose deaths generally, alcohol-related overdoses rose over the same time period, while deaths caused by drunk driving declined. Other alcohol-related causes included heart disease, cancer, and accidental injuries like falls.

Though a majority of deaths involved men, the climb in deaths over time increased faster for women. People between the ages of 45 to 74, non-Hispanic American Indians, and Alaska Natives were also disproportionately more impacted.

Other studies have found a similar uptick in emergency room visits and hospitalizations related to alcohol use during this same period, the authors noted, but this seems to be the first to provide a detailed look at alcohol-fueled mortality based on death certificate data. Bleak as the findings are, though, they’re probably selling the problem short.
“Given evidence that death certificates often do not reflect the contribution of alcohol, the magnitude of alcohol-related mortality in the United States is likely much higher than suggested from death certificates alone,” the authors said.

According to the Centers for Disease Control and Prevention, between 2006 and 2010 an average 88,000 people died annually at least partly because of too much alcohol. But the authors argue that even this estimation—which relies on death certificates as well as a formula that predicts how much any particular cause of death can be tied to alcohol—is based on outdated research.

Regardless of the exact number, it’s clear that more people in the U.S. are drinking themselves to death. Given the aging population, it’s likely we’ll see that rise continue, even if our national level of drinking stays stable. Along with the other things that can plague long-time drinkers, such as cirrhosis or liver cancer, alcohol can interfere with the many medications people tend to take as they get older.

While there’s no single cause behind the trend—or a surefire way to convince people to drink less—the authors do note that relatively few doctors even ask patients about their alcohol use, especially if they’re older. Among younger people, the problem is more about stopping them from binge drinking.