

# Alcohol & Women's Health: Studies Reveal Problems

By National Institute on Alcohol Abuse and Alcoholism (NIAAA)

**I**ncreases in the prevalence of alcohol misuse and alcohol use disorder (AUD) among women point to a growing adverse effect of alcohol on the health of women in the United States, according to findings by NIAAA scientists. While alcohol misuse by anyone presents serious public health concerns, women have a higher risk of certain alcohol-related pathologies compared to men.

“The harms associated with alcohol misuse in women escalate more quickly, and at lower drinking levels, than in men, and the damage tends to be more severe,” says NIAAA Director George F. Koob, PhD.

Alcohol resides predominantly in body water, and pound for pound, women have less water in their bodies than men. This means that after a woman and a man of the same weight drink the same amount of alcohol, the woman's blood alcohol concentration will tend to be higher, putting her at greater risk for harm. Other biological differences may contribute as well.

“The worrisome trends we've seen lately should make clinicians, researchers, and the public take note and spur action to improve diagnosis, prevention, and treatment of alcohol misuse among women,” Dr. Koob says.

A 2015 study led by Aaron White, PhD, NIAAA's Senior Scientific Advisor to the Director, indicates

that longstanding differences between men and women in alcohol consumption and alcohol-related harms might be narrowing in the United States. The analysis of annual data from the National Survey on Drug Use and Health found that differences in measures such as current drinking, number of drinking days per month, reaching criteria for AUD, and driving under the influence of alcohol in the past year, all narrowed for females and males between 2002 and 2012. The findings suggest that while males still consume more alcohol, the differences between men and women are diminishing.

In March 2017, researchers led by Rosalind Breslow, PhD, MPH, RD, of the NIAAA Division of Epidemiology and Prevention Research, reported upward trends in drinking among adults ages 60 and older in the United States, especially among women. While the analysis of data from more than 65,000 participants ages 60 and older in the National Health Interview Survey found that men continue to drink more than women, the prevalence of current drinking increased over time more significantly among women than men, narrowing the gender gap by about 5 percent between 2006 and 2014. The gender gap in binge drinking among adults ages 60 and older also narrowed.

“These trends among older adults are particularly concerning, since older adults who drink are at higher risk of unintentional alcohol-related injuries, health problems exacerbated by alcohol use, and alcohol-prescription medication interactions,” says Dr. Breslow.

Deidra Roach, MD, a Medical Project Officer in NIAAA's Division of Treatment and Recovery Research, points to cultural changes as a leading explanation for the increase in alcohol misuse among women.

“The culture around women's drinking has changed dramatically over the past 50 years,” says Dr. Roach. “These days, women often go out for a night on the town with the intention of drinking heavily, and we see the evidence for this all over social media. Stress is another factor. Women experience higher rates of anxiety and depression than men do, and more often drink in response to negative mood states. But while alcohol may ‘take the edge off’ anxiety or elevate a depressed mood in the moment, over the long term, alcohol misuse only makes these problems worse.”

In May 2017, NIAAA researchers provided still more evidence of this troubling trend. Reporting online in *JAMA Psychiatry*, researchers in the NIAAA Epidemiology and Biometry Branch and their colleagues compared data from the 2001–2002 and the 2012–2013 National Epidemiologic Survey on Alcohol and Related Conditions. They found that the prevalence of alcohol use, high-risk drinking (defined as drinking, on any day, four or more drinks for women and five or more drinks for men), and AUD increased across almost all sociodemographic groups in the United States over the period between the surveys. With few exceptions, increases in all the outcomes were the greatest among women, older adults, racial/ethnic minorities, and those with lower educational levels and family income.

NIAAA is committed to better understanding the causes and consequences of alcohol misuse among women and to developing strategies for addressing it. The NIAAA Strategic Plan 2017–2021 identifies a number of research priorities spanning the Institute’s broad portfolio that are relevant to this issue. Raising awareness about the effects of alcohol on women’s health and safety is a key component of this effort. On June 22, 2017, Dr. Koob and Dr. Roach joined Carlo DiClemente, PhD (University of Maryland, Baltimore County), Barbara McCrady, PhD (University of New Mexico), and Martha Woodroof, former public radio journalist, at a congressional briefing sponsored by the Friends of NIAAA. Titled “The Changing Patterns of Women’s Drinking and Their Impact on Public Health,” the briefing discussed recent trends in alcohol misuse by women and alcohol’s effects on women’s health, as well as evidence-based practices for diagnosing, preventing, and treating alcohol-related conditions in women.

“The briefing was an important opportunity to present timely information to congressional staff, an interested and influential audience, on this growing problem,” says Dr. Koob.

For more information about women and alcohol use or general information about the health risks of alcohol misuse, visit [www.niaaa.nih.gov](http://www.niaaa.nih.gov).

#### REFERENCES

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*The National Institute on Alcohol Abuse and Alcoholism (NIAAA) is one of the 27 institutes and centers that comprise the National Institutes of Health (NIH). NIAAA supports and conducts research on the impact of alcohol use on human health and well-being. It is the largest funder of alcohol research in the world.*

## What Are the Health Risks Related to Alcohol?

### Alcohol Use Disorder (AUD)

AUD is a chronic relapsing brain disease characterized by an impaired ability to stop or control alcohol use despite adverse social, occupational, or health consequences. AUD can range from mild to severe, and recovery is possible regardless of severity.

### Liver Damage

Women who regularly misuse alcohol are more likely to develop alcoholic hepatitis, a serious acute illness, than men who drink the same amount of alcohol. This pattern of drinking can also lead to cirrhosis of the liver. Alcoholic liver disease includes a broad range of diseases, from the less severe—steatosis (fatty liver)—to end-stage liver disease, or cirrhosis (liver cell death).

### Heart Disease

Long-term alcohol misuse is a leading cause of heart disease. Women are more susceptible to alcohol-related heart disease than men, even though they may consume less alcohol over a lifetime than men.

### Brain Damage

Research suggests that alcohol misuse produces brain damage more quickly in women than in men. In addition, because alcohol can disrupt the development of the brain during the adolescent years, teen girls who drink may be more vulnerable to brain damage than teen boys who drink. Women also may be more susceptible than men to alcohol-related blackouts, defined as periods of memory loss of events during intoxication without loss of consciousness.

### Breast Cancer

There is an association between drinking alcohol and developing breast cancer. Women who consume about one drink per day have a 5–9 percent higher chance of developing breast cancer than women who do not drink at all. That risk increases for every additional drink they have per day.

### Pregnancy

Any drinking during pregnancy can be harmful. A woman who drinks during pregnancy puts her fetus at risk for physical, cognitive, or behavioral problems. Drinking during pregnancy can also increase the risk for pre-term labor.