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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES • National Institutes of Health • National Institute on Alcohol Abuse and Alcoholism

FEATURE

NEW NIAAA RESOURCE HELPS HEALTHCARE PROFESSIONALS PROVIDE BETTER ALCOHOL-RELATED CARE



The National Institute on Alcohol Abuse and Alcoholism (NIAAA) has released [*The Healthcare Professional's Core Resource on Alcohol*](#) (HPCR) to help healthcare professionals provide evidence-based care for people who drink alcohol. Created with busy clinicians in mind, the HPCR provides

concise, thorough information designed to help them integrate alcohol care into their practice.

Healthcare professionals can earn free continuing education (CME/CE) credits for completing HPCR articles.

Alcohol contributes to more than 200 health conditions and nearly [100,000 deaths](#) in the United States each year—with upward trends in both deaths and alcohol-related consequences seen during the COVID-19 pandemic. Yet, alcohol-related risks often go unaddressed in healthcare settings. Although [many healthcare professionals ask patients about their drinking](#), [few use validated screening tools or follow up with an assessment and brief intervention](#), and some may not be aware of evidence-based treatment options. Moreover, [less than 10 percent of people ages 18 and older who had alcohol use disorder \(AUD\) received any treatment in the past year](#), and [less than 2 percent receive U.S. Food and Drug Administration \(FDA\)-approved AUD medications](#).

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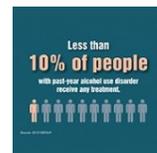


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“Our hope is that the HPCR will become a one-stop center to empower healthcare professionals to provide evidence-based alcohol-related care,” says NIAAA Director George F. Koob, Ph.D.

Healthcare professionals are in a prime position to make a difference for their patients with alcohol-related problems. By routinely offering alcohol screening and followup during physicals or discussions about health conditions related to—and likely worsened by—alcohol, healthcare professionals can help patients to reduce their alcohol intake when needed.

What the HPCR Provides

“We want healthcare professionals to know three things about evidence-based alcohol care: that it is important, that they can do it, and that it’s easy,” says Raye Litten, Ph.D. Dr. Litten is a co-developer of the HPCR and the Director of the NIAAA Division of Treatment and Recovery. “They can quickly screen, provide a diagnosis, give advice, prescribe FDA-approved medications, and give referrals to a specialist if the case is severe.”

The HPCR is built around 14 user-friendly, practical overview articles designed to address common barriers to alcohol-related healthcare by providing:

- Knowledge to fill common gaps in training about addiction, including the neuroscience of addiction, evidence-based AUD behavioral healthcare and medications, and the varied paths to recovery
- Quick, validated alcohol screening and assessment tools that address time constraints and easily provide a definitive picture of drinking levels and, in those who drink heavily, any AUD symptoms
- Clarity about what constitutes heavy drinking, AUD severity levels, and recovery to build confidence in providing brief advice to patients and collaborating on their plans for a healthier future
- Information about the medical complications produced by alcohol misuse and the interactions of alcohol with other drugs and medications
- Steps to reduce stigma surrounding alcohol-related problems and encourage greater patient acceptance of alcohol treatment when needed

Five different types of healthcare professionals—physicians, physician assistants, nurses, psychologists, and pharmacists—can earn more than 10 hours of free continuing education credit from the HPCR.

“The option of receiving continuing education credits supports deeper engagement with the content, and we hope this promotes enduring changes not only in awareness but also in practice,” says Laura Kwako, Ph.D. Dr. Kwako is program director of NIAAA’s health services portfolio and a co-developer of the HPCR.

In addition to the 14 overview articles, the HPCR offers helpful links for clinical practice from professional organizations as well as deeper dives into emerging alcohol research topics via videos and review articles by NIAAA staff and grantees.

How the HPCR Was Developed

The HPCR was developed with the help of more than 70 contributors—including physicians, clinical psychologists, and basic and clinical alcohol researchers—who served as writers for full articles, content contributors to subsections, reviewers, and editorial staff. These contributors included both NIAAA staff and outside experts.

Throughout the HPCR's development, NIAAA focused on optimizing the usability of the materials for their target audience of healthcare professionals. Through rigorous focus testing with healthcare professionals, the editorial team confirmed the need for easily digestible information about alcohol's effects on health and the value of CME/CE credits. The team also reinforced ways to surmount barriers to the delivery of evidence-based alcohol care across the 14 articles.

To maximize the awareness and use of the HPCR by its target audience, NIAAA is actively sharing this valuable new tool with healthcare professionals through social media, professional societies, healthcare plans, and more.

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Population prevalence estimates (%) are weighted by the person-level analysis weight and derived from the data set, defining "any treatment" as treatment or counseling designed to help reduce or stop alcohol use, including detoxification and any other treatment for medical problems associated with alcohol use, as well as defining AUD as alcohol abuse or alcohol dependence according to the *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition (DSM-IV). Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. 2019 National Survey on Drug Use and Health (NSDUH-2019-DS0001). Public data set.

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NEWS FROM THE FIELD

NIAAA SCIENTISTS UNVEIL NEW DEFINITION OF RECOVERY FROM ALCOHOL USE DISORDER



Scientists at the National Institute on Alcohol Abuse and Alcoholism (NIAAA) have released [a new definition of recovery from alcohol use disorder](#) (AUD) that addresses limitations associated with prior AUD recovery definitions and lays the groundwork for future recovery-related research. In a recent review article, Brett Hagman, Ph.D., Dan Falk, Ph.D., Raye Litten, Ph.D., and NIAAA Director George F. Koob, Ph.D., explain that:

Recovery is a process through which an individual pursues both remission from AUD and cessation from heavy drinking. Recovery can also be considered an outcome such that an individual may be considered 'recovered' if both remission from AUD and cessation from heavy drinking are achieved and maintained over

time. For those experiencing alcohol-related functional impairment and other adverse consequences, recovery is often marked by the fulfillment of basic needs, enhancements in social support and spirituality, and improvements in physical and mental health, quality of life, and other dimensions of well-being. Continued improvement in these domains may, in turn, promote sustained recovery.

With input from key recovery stakeholders, such as researchers, clinicians, and recovery specialists, NIAAA developed this definition to provide a framework for advancing recovery research and the treatment of AUD. This definition extends prior ones by incorporating key, empirically supported alcohol-related processes, such as remission from *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (commonly known as DSM-5) AUD and cessation from heavy drinking. And by not requiring abstinence for a successful outcome, the new definition recognizes that recovery is an ongoing process.

The new definition of recovery will allow for more consistency across AUD research. NIAAA expects to refine the definition as research continues to improve the understanding of how well-being and biopsychosocial functioning, remission from AUD, and cessation from heavy drinking affect recovery.

Reference:

Hagman, B.; Falk, D.; Litten, R.; and Koob, G.F. Defining recovery from alcohol use disorder: Development of an NIAAA research definition. *American Journal of Psychiatry*. In press. [PMID: 35410494](#)

NEWS FROM THE FIELD

STUDY SHOWS GENE EDITING MAY HOLD PROMISE FOR REVERSING EFFECTS OF ADOLESCENT BINGE DRINKING



Gene editing could one day help reverse anxiety and excessive drinking caused by adolescent exposure to alcohol, [according to a new study](#) in rats supported by the National Institute on Alcohol Abuse and Alcoholism (NIAAA). A team of investigators led by NIAAA grantee Subhash C. Pandey, Ph.D., the Joseph A. Flaherty-endowed professor of psychiatry and director of the Alcohol Research Center at the University of Illinois at Chicago, published a report of the findings in the May 2022 issue of *Science Advances*.

The new research is the latest chapter in ongoing investigations by Dr. Pandey's lab of how binge drinking in adolescence creates epigenetic changes in the brain that can lead to increased anxiety and alcohol consumption in adulthood. Epigenetic changes refer to

DNA modifications that affect expression of a gene without altering the gene's DNA sequence.

The researchers previously reported that [alcohol exposure in adolescent rats causes epigenetic modifications](#) leading to changes in genetic material called enhancer RNA (eRNA). Specifically, adolescent alcohol exposure lowered expression of a gene encoding the immediate-early gene activity-regulated cytoskeleton-associated protein, known as Arc, in the amygdala through epigenetic changes to the gene's synaptic activity response element (SARE). These epigenetic changes affected Arc eRNA and messenger RNA (mRNA) levels, which resulted in the rats' increased susceptibility to anxiety in adulthood and increased alcohol consumption in adulthood. Directly blocking Arc eRNA in the amygdala of naive rats led to anxiety-like behaviors and increased alcohol consumption, demonstrating that Arc eRNA expression in the amygdala regulates anxiety-like behaviors and excessive alcohol consumption.

In their new study, Dr. Pandey's team used CRISPR/dCas9 gene editing techniques to repair the epigenetic changes to the Arc SARE in adult rats that had binge alcohol exposure during adolescence. The researchers found that Arc gene expression returned to normal after gene editing, and that all measures of anxiety and alcohol consumption were significantly reduced.

Although much work remains before any potential application in humans, the new findings underscore the long-lasting effects that early binge drinking can have on the brain and provide evidence that gene editing could become a useful tool to address those effects.

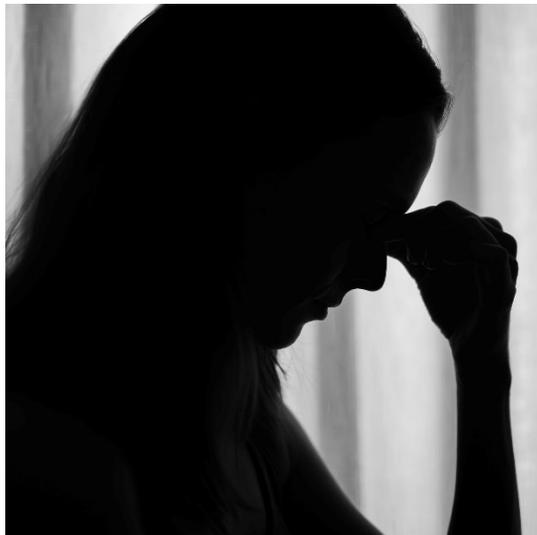
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NEWS FROM THE FIELD

STUDY SHOWS ALCOHOL-INVOLVED SUICIDE DEATHS INCREASED MORE AMONG WOMEN COMPARED TO MEN



Suicide deaths involving heavy alcohol use have increased significantly among women in recent years, [according to a new study](#) supported by the National Institute on Alcohol Abuse and Alcoholism (NIAAA). Previous research has shown that alcohol is a risk factor for suicidal behavior and that women have a higher risk than men do for suicide while intoxicated. And in the two decades leading up to 2018, suicide death rates in the United States increased, with the rate among women increasing faster than the rate among men.

The new research examined the increase in suicide mortality among women in the context of data showing an increase in heavy alcohol use over time. The study included data from the National Violent Death Reporting System, in which 115,202 suicides—including 87,771 men

and 27,431 women ages 18 and up—were reported between 2003 and 2018. Suicides among people who had a blood alcohol concentration (BAC) of 0.08 g/dL or greater were considered alcohol involved.

The researchers found that during the study period, the proportion of suicides involving a BAC greater than or equal to 0.08 g/dL significantly increased each year for women of all age groups. The greatest increase was among women over age 65. In contrast, only middle-aged men had a significant yearly increase in alcohol-involved suicides.

The researchers say these findings suggest that alcohol use may have been a core driver in the accelerated increase in suicide among U.S. women. Although more research is needed to elucidate the link between alcohol use and suicide, the findings point to a need for more education and awareness of this relationship, as well as improved screening and intervention strategies.

Reference:

Lange, S.; Kaplan, M.S.; Tran, A.; and Rehm, J. Growing alcohol use preceding death by suicide among women compared with men: Age-specific temporal trends, 2003–18. *Addiction*. In press. [PMID: 35491753](#)

If you need suicide- or mental health-related crisis support, or are worried about someone else, please call or text the [988 Suicide and Crisis Lifeline](#) or [chat with Lifeline](#) to connect with a trained crisis counselor.

To find alcohol treatment for yourself or an adult loved one, visit the [NIAAA Alcohol Treatment Navigator](#).

BY THE NUMBERS

ALCOHOL-RELATED PROBLEMS COMMON, YET ALCOHOL USE DISORDER UNDERTREATED

Less than
10% of people
with past-year alcohol use disorder
receive any treatment.



Source: 2019 NSDUH

According to the 2019 National Survey on Drug Use and Health (NSDUH), [14.5 million \(nearly 15 million\) people ages 12 and older](#) met the *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition (DSM-IV) criteria for past-year alcohol use disorder (AUD).

Clearly, the scope of alcohol problems in the U.S. population is large. However, NSDUH data indicate that [less than 10 percent](#) of people with past-year AUD receive any treatment. To address this problem, the National Institute on Alcohol Abuse and Alcoholism (NIAAA) has developed [The Healthcare Professional's Core Resource on Alcohol](#), also known as HPCR.

[Studies](#) have shown that [people with AUD are more likely to seek care from a primary care provider for an alcohol-related medical problem rather than to directly address their alcohol use problems](#). HPCR contains information about alcohol problems and how primary care providers and other healthcare professionals can help patients who drink too much overcome barriers to treatment.

Please see [the Feature story](#) for more information about this valuable new resource.

7 <https://www.spectrum.niaaa.nih.gov>

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Population prevalence estimates (%) are weighted by the person-level analysis weight and derived from the data set, defining “any treatment” as treatment or counseling designed to help reduce or stop alcohol use, including detoxification and any other treatment for medical problems associated with alcohol use, as well as defining AUD as alcohol abuse or alcohol dependence according to the DSM-IV. SAMHSA, CBHSQ. 2019 National Survey on Drug Use and Health (NSDUH-2019-DS0001). <https://www.datafiles.samhsa.gov/dataset/national-survey-drug-use-and-health-2019-nsduh-2019-ds0001>. Accessed December 8, 2020.

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