



DATA SHOWS INCREASES IN PROBLEM DRINKING

Alcohol use disorder, or AUD, is the clinical term for problem drinking that causes mild to severe harm or distress.

Alcohol use disorder is becoming more common, a new study found, but few people seek treatment. The findings highlight the need to better educate people about problem drinking and its treatment.

Alcohol use disorder, or AUD, is the clinical term for problem drinking that causes mild to severe harm or distress. Excessive drinking can interfere with work, school, and relationships. It also raises the risk of many ailments, including heart disease, high blood pressure, liver disease, depression, and some cancers.

Doctors diagnose AUD using guidelines that were updated in 2013. The new guidelines combined 2 different disorders—alcohol abuse and alcohol dependence—into the single disorder of AUD.

A team led by the National Institutes of Health (NIH's) Dr. Bridget F. Grant wanted to find out how many Americans would be diagnosed with AUD based on the new guidelines. They conducted face-to-face interviews with over 36,000 U.S. adults.

They found that about 14% of the adults met the criteria for having AUD within the previous year. Almost 1 in 3 people they interviewed had AUD at some time in their lives. Of these, only about 20% sought treatment or help for their AUD.

Problem drinking was more common in men than in women. It was also more common in young adults than in older adults.

"These findings underscore that alcohol problems are deeply entrenched and significantly under-treated in our society,"



says NIAAA Director Dr. George F. Koob. “The new data should provide further impetus for scientists, clinicians, and policymakers to bring AUD treatment into the mainstream of medical practice.”

MODERATE ALCOHOL CONSUMPTION:

According to the Dietary Guidelines for Americans, moderate drinking is up to 1 drink per day for women and up to 2 drinks per day for men.

BINGE DRINKING:

NIAAA defines binge drinking as a pattern of drinking that brings blood alcohol concentration (BAC) levels to 0.08 g/dL. This typically occurs after 4 drinks for women and 5 drinks for men—in about 2 hours.

The Substance Abuse and Mental Health Services Administration (SAMHSA), which conducts the annual National Survey on Drug Use and Health (NSDUH), defines binge drinking as drinking 5 or more alcoholic drinks on the same occasion on at least 1 day in the past 30 days.

HEAVY DRINKING:

SAMHSA defines heavy drinking as drinking 5 or more drinks on the same occasion on each of 5 or more days in the past 30 days.

LOW RISK FOR DEVELOPING AN ALCOHOL USE DISORDER (AUD):

As defined by NIAAA, for women, low-risk drinking is no more than 3 drinks on any single day and no more than 7 drinks per week. For men, it is defined as no more than 4 drinks on any single day and no more than 14 drinks per week. NIAAA research shows that only about 2 in 100 people who drink within these limits have an AUD. Even within these limits, you can have problems if you drink too quickly or have other health issues.

- › Certain people should avoid alcohol completely, including those who:
- › Plan to drive a vehicle or operate machinery
- › Take medications that interact with alcohol
- › Have a medical condition that alcohol can aggravate
- › Are pregnant or trying to become pregnant

ALCOHOL FACTS AND STATISTICS



PREVALENCE OF DRINKING: In 2013, 86.8 percent of people ages 18 or older reported that they drank alcohol at some point in their lifetime; 70.7 percent reported that they drank in the past year; 56.4 percent reported that they drank in the past month.

PREVALENCE OF BINGE DRINKING AND HEAVY

DRINKING: In 2013, 24.6 percent of people ages 18 or older reported that they engaged in binge drinking in the past month; 6.8 percent reported that they engaged in heavy drinking in the past month.

ADULTS (AGES 18+): 16.6 million adults ages 18 and older (7.0 percent of this age group⁴) had an AUD in 2013. This includes 10.8 million men (9.4 percent of men in this age group) and 5.8 million women.



SHOULD WE BE WORRIED ABOUT SUPERBUGS?

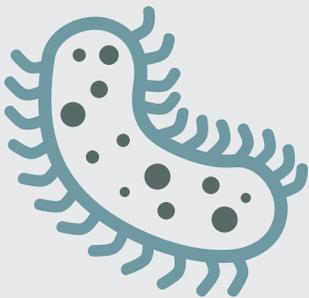
Can you imagine a world where antibiotics didn't work anymore? You shouldn't have to. But over the past few decades, they've been losing their punch. Bacterial strains that are resistant to many types of antibiotics are called superbugs. Sadly, our excessive use of antibiotics is partly to blame.

Superbugs infect over 2 million people across the U.S. each year and kill more than 23,000. Common forms of superbugs include types of tuberculosis, staph infections like MRSA, and gonorrhea.

You can help in the fight against superbugs. First, there's prevention. Try not to spread infectious bacteria. Wash your hands often. Promote healthy bacteria in your body through exercise and healthy eating.

Your second line of defense is using antibiotics properly. Don't ask for antibiotics if your doctor doesn't recommend them—they should only be taken when necessary. Be sure to take them exactly as directed and finish all your medication, even if you feel better.

MORE ON ANTIMICROBIAL RESISTANCE



Microbes, collectively, include bacteria, viruses, fungi, and parasites. For the past 70 years, antimicrobial drugs, such as antibiotics, have been successfully used to treat patients with bacterial and infectious diseases. Over time, however, many infectious organisms have adapted to the drugs designed to kill them, making the products less effective. To address this growing problem, health organizations have conducted significant research on many aspects of antimicrobial (drug) resistance, including basic research on how microbes develop resistance, new and faster diagnostics, and clinical trials designed to find new vaccines and treatments effective against drug-resistant microbes.

Here are some quick facts on antimicrobial resistance:

- » Many infectious diseases are increasingly difficult to treat because of antimicrobial-resistant organisms, including HIV infection, staphylococcal infection, tuberculosis, influenza, gonorrhea, candida infection, and malaria.

- » Between 5 and 10 percent of all hospital patients develop an infection. About 90,000 of these patients die each year as a result of their infection, up from 13,300 patient deaths in 1992.
- » According to the Centers for Disease Control and Prevention (CDC), antibiotic resistance in the United States costs an estimated \$20 billion a year in excess health care costs, \$35 billion in other societal costs and more than 8 million additional days that people spend in the hospital.
- » People infected with antimicrobial-resistant organisms are more likely to have longer hospital stays and may require more complicated treatment.
- » The Antibiotic Resistance Threats in the United States report from CDC gives a first-ever snapshot of the burden and threats posed by the antibiotic-resistant germs having the most impact on human health.

BLOCKING HARMFUL BACTERIA



- » Wash your hands often with soap and water, or use an alcohol-based hand sanitizer.
- » If you're sick, make sure your doctor has a clear understanding of your symptoms. Discuss whether an antibiotic or a different type of treatment is appropriate for your illness.
- » If antibiotics are needed, take the full course exactly as directed. Don't save the medicine for a future illness, and don't share with others.
- » Maintain a healthy lifestyle—including proper diet, exercise, and good hygiene—to help prevent illness, thereby helping to prevent the overuse or misuse of medications



ALL ABOUT ALS

Understanding a Devastating Disorder

ALS stands for amyotrophic lateral sclerosis. It's also called Lou Gehrig's disease. ALS attacks motor neurons, the nerve cells responsible for regulating "voluntary" muscles that we're aware of controlling, such as those in our arms, legs, and face. As these motor neurons degenerate or die, they stop sending signals to muscles. Unable to function, the muscles gradually weaken and waste away.

"At first only a single limb may be affected, such as some weakness in a hand or a leg, or a person may have problems speaking or swallowing," explains Dr. Amelie Gubitza, who oversees much of the National Institutes of Health (NIH) ALS research.

Other symptoms may include stiff muscles, cramps, or stumbling. It may become hard to turn a key, lift a coffee pot, or button a shirt.

Eventually, all muscles under voluntary control are affected, and people lose the ability to move different parts of their body. When breathing-related muscles fail, ventilation support can help people breathe. Most people with ALS die from respiratory failure, usually within 3 to 5 years after symptoms first appeared. However, about 10% of people with ALS survive for 10 or more years.

Nationwide, more than 12,000 people have ALS. It affects people of all races and ethnicities. ALS most commonly strikes between the ages

of 40 and 60, but younger and older people also can develop the disorder. Men are more likely than women to be affected.

In most ALS cases, the underlying causes are unknown. "The reasons why you get it are not really understood," Gubitza says. "Even a healthy young person can get this disease out of the blue."

About 10% are inherited. In 1993, scientists discovered that mutations, or alterations in a certain gene were associated with some cases of ALS. Since then, mutations in over a dozen genes have been found to cause familial ALS. These discoveries provide new information about the disease that will help guide future research.



ALS Treatment

Although ALS has no cure, it can be managed to some extent with medication and therapy. In 1995, the U.S. Food and Drug Administration approved a medication called riluzole (Rilutek) as the first drug treatment for ALS. The drug prolongs life by several months, and it can extend the time before someone needs ventilation support. Riluzole doesn't reverse the damage already done, and patients must be closely watched for possible side effects.

Other treatments for ALS aim to ease symptoms and improve quality of life. For example, an FDA-approved drug combination of dextromethorphan and quinidine (Nuedexta) helps manage intense emotional changes, such as uncontrollable laughing or crying, that are often seen with ALS.

Because the mind remains relatively intact, people with ALS may be keenly aware of their continued loss of function. They may become anxious and depressed. Health care professionals can tailor plans for therapy and equipment to keep people as mobile and comfortable as possible.

While much is still unknown, scientists are working to gain new insights into ALS. "I believe potentially promising approaches for treatment are in the pipeline," Gubitza says. "Researchers are trying to attack the disease from many different angles, which brings much hope for progress."



HOW CAN I HELP ALS RESEARCH?

- If you have ALS, join the National ALS Registry. The registry collects and analyzes data from people with ALS. All information is kept confidential.
- To participate in a clinical trial, visit <http://www.clinicaltrials.gov>. Use the search terms "amyotrophic lateral sclerosis" or "ALS" and [your state] to find trials in your area.
- Tissue donated by people with ALS can help scientists study the disorder. To learn more, visit the Human Brain and Spinal Fluid Resource Center at <http://brainbank.ucla.edu/>



POSITIVE EMOTIONS & YOUR HEALTH

Developing a Brighter Outlook

Do you tend to look on the sunny side, or do you see a future filled with dark, stormy skies? A growing body of research suggests that having a positive outlook can benefit your physical health.

Having a positive outlook doesn't mean you never feel negative emotions, such as sadness or anger, says Dr. Barbara L. Fredrickson, a psychologist and expert on emotional wellness at the University of North Carolina, Chapel Hill. "All emotions—whether positive or negative—are adaptive in the right circumstances. The key seems to be finding a balance between the two," she says.

"Positive emotions expand our

awareness and open us up to new ideas, so we can grow and add to our toolkit for survival," Fredrickson explains. "But people need negative emotions to move through difficult situations and respond to them appropriately in the short term. Negative emotions can get us into trouble, though, if they're based on too much rumination about the past or excessive worry about the future, and they're not really related to what's happening in the here and now."

A Look at Emotional Wellness

People who are emotionally well, experts say, have fewer negative emotions and are able to bounce back from difficulties faster. This

quality is called resilience. Another sign of emotional wellness is being able to hold onto positive emotions longer and appreciate the good times. Developing a sense of meaning and purpose in life—and focusing on what's important to you—also contributes to emotional wellness.

Research has found a link between an upbeat mental state and improved health, including lower blood pressure, reduced risk for heart disease, healthier weight, better blood sugar levels, and longer life. But many studies can't determine whether positive emotions lead to better health, if being healthy causes positive emotions, or if other factors are involved.



"While earlier research suggests an association between positive emotions and health, it doesn't reveal the underlying mechanisms," says Dr. Richard J. Davidson, a neuroscientist at the University of Wisconsin-Madison. "To understand the mechanisms, I think it will be crucial to understand the underlying brain circuits."

Negative emotions, in contrast, can activate a brain region known as the amygdala, which plays a role in fear and anxiety. "We've shown that there are big differences among people in how rapidly or slowly the amygdala recovers following a threat," Davidson says. "Those who recover more slowly may be more at risk for a variety of health conditions compared to those who recover more quickly."

Among those who appear more resilient and better able to hold on to positive emotions are people who've practiced various forms of meditation. In fact, growing evidence suggests that several techniques—including meditation, cognitive therapy (a type of psychotherapy), and self-reflection (thinking about the things you find important)—can help people develop the skills needed to make positive, healthful changes.

"Research points to the importance of certain kinds of training that can alter brain circuits in a way that will promote positive responses," Davidson says. "It's led us to conclude that well-being can be considered as a life skill. If you practice, you can actually get better at it."

Being open to positive change is a key to emotional wellness. "Sometimes people think that emotions just happen, kind of like the weather," Fredrickson says. "But research suggests that we can have some control over which emotions we experience." As mounting research suggests, having a positive mindset might help to improve your physical health as well.

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Enhance Your Emotional Wellness

TO DEVELOP A MORE POSITIVE MINDSET:

- » **Remember your good deeds.** Give yourself credit for the good things you do for others each day.
- » **Forgive yourself.** Everyone makes mistakes. Learn from what went wrong, but don't dwell on it.
- » **Spend more time with your friends.** Surround yourself with positive, healthy people.
- » **Explore your beliefs about the meaning and purpose of life.** Think about how to guide your life by the principles that are important to you.
- » **Develop healthy physical habits.** Healthy eating, physical activity, and regular sleep can improve your physical and mental health.

