

# NIH News in Health

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## Drinking to Excess

### Recognize and Treat Alcohol Problems

Some people enjoy an occasional glass of wine with dinner. Others might grab a beer while watching a football game. Most people drink alcohol moderately, within their limits. Others overdo it occasionally. But some people find they can't control their drinking. How do you know when drinking is becoming a problem? And what can you do if it is?

About 18 million Americans have an alcohol use disorder. Drinking too much alcohol raises your risk of injury and accidents, disease, and other health problems. Heavy drinking is one of the leading causes of preventable deaths in this country, contributing to nearly 88,000 deaths each year.

How much is too much? Men shouldn't have more than 14 drinks per week and 4 drinks on any single day. Women shouldn't have more than 7 drinks per week and no more than 3 drinks on any day. But you might be surprised at what counts as a drink. A 5-ounce glass of table wine, a 12-ounce glass of regular beer, and 1½ ounces of hard liquor each contain the same amount of alcohol, and each counts as 1 drink. You may need to adjust the amount you drink depending on how alcohol affects you. Some people—such as pregnant women or people taking certain medications—shouldn't drink alcohol at all.

Alcohol problems come from drinking too much, too fast, or too often. People with alcohol dependence are addicted to alcohol, and they can't control their drinking.

When alcohol-dependent people try to stop drinking, they may feel anxious and irritable—so they may drink some more, and it becomes a vicious cycle.

"Addiction has 3 major problems: You lose your ability to feel good, you get more stressed, and you have a hard time making proper decisions," says Dr. George Koob, director of NIH's National Institute on Alcohol Abuse and Alcoholism. "That's a recipe for disaster."

Signs of an alcohol problem include drinking more, or more often, than you intended, or making unsuccessful attempts to cut back or quit. People with alcohol problems often have trouble functioning at work, home, or school.

"A good indicator is that something is out of whack. Is your personal life deteriorating because of your drinking? Are people starting to shun you? If you're feeling generally miserable, that's a warning sign," Koob says. "You don't have to hit bottom. You'll save yourself a lot of damage socially, professionally, and probably in your own body if you attend to an alcohol problem a lot earlier."

"People shouldn't wait for a physical problem like liver disease," says Dr. Lorenzo Leggio, an NIH researcher studying new alcoholism treatments. "People develop an alcohol disorder



before liver problems get bad. The goal is to identify an alcohol disorder sooner. The sooner you act can help prevent medical consequences."

Studies show that most people with an alcohol use disorder can benefit from some form of treatment. If you or someone you care about may have an alcohol problem, help is available. The first step is to talk to a primary care doctor. In some cases, a brief intervention, or an honest conversation about drinking habits and risks, is all the person needs.

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If the problem is more serious, the doctor can help create a treatment plan, prescribe medications, or refer the person to a specialist. In more severe cases, the doctor might recommend a treatment clinic or inpatient addiction center.

"Alcohol dependence is a complex, diverse disorder. There's not one treatment that works for everybody," says Dr. Raye Litten, an alcohol



### Wise Choices Rethink that Drink

Drinking too much alcohol? Here are some tips to help cut back:

- **Pace yourself.** Sip slowly. Drink a glass of water after each alcoholic drink.
- **Include food.** Don't drink on an empty stomach.
- **Avoid triggers.** If certain people, places, or activities tempt you to drink, try to avoid them.
- **Seek healthy alternatives.** Look for new hobbies, interests, or friendships to help fill your time and manage your stress.
- **Track and control how much you drink.** If offered a drink you don't want, have a polite, convincing "no thanks" reply ready.
- **Get help.** To find an alcoholism treatment specialist in your area, visit this NIH Web page: [www.niaaa.nih.gov/alcohol-health/support-treatment](http://www.niaaa.nih.gov/alcohol-health/support-treatment).

treatment and recovery expert at NIH. "If one treatment doesn't work, you can try another one. Sometimes a combination of these will work."

Medications can help people stop or reduce their drinking. Three medications are approved by the U.S. Food and Drug Administration for treating alcohol use disorders. One of these, disulfiram, causes unpleasant side effects such as nausea, vomiting, and a racing heart rate if you consume any alcohol while taking the drug. Understandably, some people don't want to take this medication for that reason. The 2 other drugs, naltrexone and acamprosate, also have been shown effective at reducing alcohol craving in many heavy drinkers.

Additional medications are under study as possible treatments for alcohol use disorders. These include a handful of medicines already approved to treat other medical conditions. For example, the drug gabapentin is now used to treat pain and other conditions, but it also has shown promise for reducing heavy drinking in clinical research trials. Gabapentin may reduce alcohol cravings as well as anxiety, trouble sleeping, and other symptoms associated with alcohol use disorders.



### Definitions

#### Hormone

Molecule sent through the bloodstream to signal another part of the body to react a certain way.



### Web Links

For more about alcohol abuse and treatment, click the "Links" tab at: <http://newsinhealth.nih.gov/issue/Sep2014/Feature1>

NIH researchers are working to develop other approaches as well. Some are exploring a possible connection between appetite and alcohol craving. Leggio is studying a **hormone** in the stomach called ghrelin. His research suggests that when ghrelin is elevated, people feel hungry and also crave more alcohol. His lab is testing an experimental drug designed to block this hormone to help reduce alcohol craving. The drug is now being assessed in early trials at the NIH Clinical Center in Maryland.

"There's not going to be a drug that cures you of alcoholism," Koob says. "I think that drugs can help you along the way, so that some of the chemical changes in the brain can return to normal. Strengthen that with behavioral therapy to make recovery as permanent as you can."

Behavioral therapy, such as counseling or support groups, can help people develop skills to avoid or overcome stress and other triggers that could lead to drinking. The approach can help people set realistic goals, identify the feelings and situations that might lead to heavy drinking, and offer tips to manage stress. It also helps to build a strong social support network.

If the treatment plan created by your health care team is working, it's important to stick to that plan. Many people repeatedly try to cut back or quit drinking, have a setback, then try to quit again. Think of an alcohol relapse as a temporary setback and keep persisting toward full recovery.

"You always have to be aware there's a possibility of relapse and temptation," says Koob. "Any recovering alcoholic will tell you it's a daily fight for a long time." ■

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# Focusing on ADHD

## Attention Deficit Hyperactivity Disorder

Most children get restless, rowdy, or distracted at times. That's all part of being a kid. But some kids have such trouble paying attention, staying focused, and finishing tasks that it interferes with their schoolwork, home life, and friendships. These difficulties might be signs of a developmental disorder called attention deficit hyperactivity disorder, or ADHD.

ADHD is a common brain condition in children. Nationwide, more than 1 in 10 kids ages 4 to 17 have been diagnosed with ADHD. Many will have all or some of their symptoms as adults too. While there's no cure for ADHD, it can be treated and managed with medication and therapy.

"Kids with ADHD are impaired in their functioning in school, with friends, in activities, at home, or in the community," says Dr. Benedetto Vitiello, a psychiatrist and child mental health expert at NIH. "The diagnosis is made because the level of hyperactivity or lack of concentration is extreme and prevents the child from engaging in what would be expected activities appropriate to their development."

Children with ADHD usually get diagnosed around age 7, but more

severe cases may be identified earlier. Often a teacher or parent notices the child seems out of control and has more serious and persistent behavior problems than other kids the same age.

Some children with ADHD are hyperactive (overactive) and impulsive (acting quickly without thinking). These kids are constantly in motion, fidget a lot, and find it hard to sit still. They're impatient and have trouble controlling their behavior or waiting their turn.

Other children with ADHD, especially girls, are mainly inattentive (have trouble paying attention). Kids with the inattentive kind of ADHD have a hard time concentrating and following instructions. They often forget and lose things; they can't seem to get organized or complete assignments or chores. Most kids with ADHD have a combination of the hyperactive-impulsive and inattentive types.

Researchers have been studying what might cause ADHD. The condition tends to run in families, but experts believe many complex factors may play a role.

Studies suggest that some aspects of brain development can be delayed by 2 or 3 years in kids with ADHD, especially in the parts of the brain involved in thinking, planning, and paying attention. For many kids, Vitiello says, the brain later develops normally and these kids catch up, even though some symptoms may continue throughout their lives.

There's no single test to diagnose ADHD. If you're concerned about it, talk with your child's doctor or a mental health specialist. Medication and counseling can help kids focus and learn skills so they eventually won't need constant reminders to do and finish routine tasks.



"Make sure there's a good schedule of activities and a system of reinforcing the child to follow through on assignments," says Vitiello. "Reward the child for good behavior and discourage distraction, impulsiveness, and other problematic behaviors."

The most effective ADHD medications are stimulants, Vitiello says. In kids with ADHD, stimulants reduce hyperactivity and improve attention. Children taking these drugs should be monitored by a doctor. If symptoms don't improve, or if side effects occur (such as loss of appetite, difficulty sleeping, or anxiety), the doctor might lower the dose or change the medicine.

"Considering there are different types and forms of the condition," says Vitiello, "each child and each family needs to identify and tailor the approach to that child, without relying just on medication alone." ■



### Wise Choices Managing ADHD

Help kids with ADHD stay on top of their game:

- Keep children on the same daily schedule, from waking up to bedtime.
- Organize clothes, toys, and other commonly used items. Keep everything in its place.
- Use organizers for schoolwork and supplies.
- Be clear and consistent with rules; praise and reward kids when they achieve goals.



### Web Links

For more information about ADHD, click the "Links" tab at:  
<http://newsinhealth.nih.gov/issue/Sep2014/Feature2>



# Health Capsules

For links to more information, see these stories online:  
<http://newsinhealth.nih.gov/issue/Sep2014/Capsule1>

## Genetic Sites Tied to Schizophrenia

Researchers linked more than 100 genetic regions to schizophrenia, including 83 that were previously unrecognized. The findings may lead to new strategies for treating this serious brain disorder.

Schizophrenia affects about 1 in 100 people. It causes hallucinations, delusions, and other mental problems. The illness usually strikes during young adulthood and lasts a lifetime.

Schizophrenia tends to run in families, which suggests that genes might

play a role. To learn more, NIH-funded scientists compared the **genomes** of about 37,000 people who have schizophrenia and 113,000 people who don't.

Tiny variations in 108 genetic regions were more common in the schizophrenia group; 83 of these regions hadn't been linked to schizophrenia before.

Among the connections were ties to the brain chemical dopamine, a known target for schizophrenia medications. Another was to **immune system** function, which had been suspected before. Links were also found with genes related to learning and memory, communication between brain cells, and other functions.

"These results underscore that genetic programming affects the brain in tiny, incremental ways that

can increase the risk for developing schizophrenia," says Dr. Thomas Lehner, an NIH expert in genetics and mental health.

The researchers note that the genetic sites they found don't necessarily cause schizophrenia. They might be a sign of disease-causing variations nearby. Larger studies will help pinpoint the genetic factors that raise the risk for schizophrenia. ■

### Definitions

#### Genome

The entire set of genetic instructions in your body.

#### Immune System

Protects your body from invading germs and other microscopic threats.



### Featured Website Gut Check

<http://gutcheck.cancer.gov>

This site offers easy-to-read information about screening for colorectal cancer, the 2nd leading cause of cancer-related deaths nationwide. Screening may detect growths called polyps that can be removed before they develop into cancer. It can also detect cancer early, when treatment may be most effective. Videos and other resources help you decide which screening test is right for you.



## Helping Older Adults Talk With Their Doctors

Do you work with seniors? Help them get the most out of their medical appointments with the new *Talking With Your Doctor Presentation Toolkit*. This free, easy-to-use resource from NIH includes most everything you'll need to lead a 45-minute workshop designed to help seniors prepare for a doctor's visit.

You don't need special expertise or training to use the toolkit. The presentation offers ideas that can help seniors effectively talk with doctors

about health concerns, play an active role in treatment decisions, and remember what was discussed following the appointment. It includes tips to help you prepare for the presentation, encourage audience participation, and reinforce some of the points in the discussion.

Download the free toolkit—including slides, speaker's notes, and handouts—at [www.nia.nih.gov/health/publication/talking-your-doctor-presentation-toolkit](http://www.nia.nih.gov/health/publication/talking-your-doctor-presentation-toolkit). ■

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