

Raise a Toast to Healthy Holidays Celebrate the Season Without Risky Drinking

If you're celebrating the holidays with family and friends, there's a good chance alcohol will be part of the picture. You might like to ring in the New Year with a champagne toast. You may think a drink or two helps take the edge off stressful family gatherings. Or maybe football, friends and beer are one of your favorite parts of winter. People drink for many reasons. But as everyone knows, if you overdo it there'll be little to celebrate the next day.

Why does alcohol feel so good in small amounts but so lousy if you drink too much? Why do some people develop drinking problems while others don't? Scientists have been working hard to learn why people use, abuse and sometimes become addicted to alcohol. Although there's still much to learn, this research has already led to better ways to treat and prevent alcohol-related problems.

Alcohol use is common in this country. About two-thirds of American adults had at least 1 drink during the past year, according to an NIH survey.

Occasional, moderate drinking usually poses few problems. However, more than 1 in 10 adults grapple with **alcohol dependence**, or alco-

holism, at some time in their lives. Nearly 1 in 5 struggle with alcohol abuse—harmful drinking that leads to missing work, neglecting family responsibilities or drinking in dangerous situations, like when driving. Long-term heavy drinking can damage the liver and cause several types of cancer, inflammation of the pancreas and brain damage.

When it comes to holiday drinking, the consequences can range from making an embarrassing remark to being arrested for drunken driving or causing a deadly traffic accident.

"The main problem with holiday drinking is that people are often drinking for longer periods of time than they normally do, and they're staying up later than they normally do. They may not have a good frame of reference for how the alcohol will affect them," says Dr. Dennis Twombly, a scientist at NIH's National Institute on Alcohol Abuse and Alcoholism.

Low levels of alcohol can act as a stimulant. "At low doses, alcohol has effects that the brain perceives as positive and rewarding," Twombly explains. "It can cause euphoria and relieve anxiety and stress." Scientists today are working to discover what

parts of the brain are affected by alcohol and how it creates these pleasurable feelings.

At higher levels, alcohol's impact on the brain begins to take a downturn. It can act as a depressant and make you sleepy. Twombly says, "You start to see effects on other areas of the brain like the cerebellum, which causes people to lose their balance

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Definition

Alcohol Dependence (Alcoholism)

Condition in which you crave alcohol, are unable to stop drinking once you've begun, have physical illness when the drinking stops and need to drink more to feel alcohol's effects.

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and coordination. Their reaction times may become slower. Their ability to speak may become somewhat impaired." Inhibition and judgment are also affected, and emotions can become unstable.

Alcohol quickly moves from your stomach into your bloodstream, where it travels to all your major organs and tissues. Eating before you drink helps slow down this process. When alcohol reaches your liver, it gets broken down and converted to other substances. Liver enzymes, however, can only break down about half of an alcohol-containing beverage per hour.



Wise Choices Tips for Coping with Holiday Drinking

If you decide to drink alcohol during a holiday celebration:

- Limit yourself to half of an alcohol-containing drink per hour.
- Don't drink on an empty stomach.
- Alternate alcohol-containing drinks with non-alcoholic ones such as water, soda or juice.
- Make sure you have a designated driver to get everyone home safely after the celebration.

If you drink alcohol faster than your liver can clear it, the alcohol levels in your blood will climb. Binge drinking in particular—for men, defined as 5 or more drinks over a 2-hour period; for women, 4 or more—can quickly raise your blood alcohol above the legal limit. This excess alcohol continues to circulate throughout the body long after your last drink, affecting your heart, brain and other organs.

How much alcohol is too much? That depends. Alcohol affects everyone differently. Researchers do know that drinking beyond a certain amount increases your risk for alcohol abuse or dependence. The risk increases substantially for men who have more than 4 drinks in a single day or more than 14 per week, and for women who have more than 3 drinks in a day or more than 7 per week. A drink is generally defined as a 12-ounce bottle of beer or wine cooler, a 5-ounce glass of wine, or a 1.5 ounce shot of 80-proof liquor.

Scientists are working to understand why some people develop long-term problems with alcohol. Researchers have long known that alcoholism tends to run in families. In fact, people with an alcoholic parent are about 4 times more likely than others of developing an alcohol use disorder. But, despite their increased risk, many children of alcoholics do not become alcoholic themselves.



Web Sites

- www.niaaa.nih.gov/FAQs/General-English/default.htm

"We know from research that roughly half the risk for alcoholism can be explained by some **genes**," Twombly says. Nearly a dozen alcoholism-related genes have already been identified, and many more are expected. "The other half of the risk," he says, "has to do with the environment, including your family and friends, your anxiety and stress levels and even your childhood experiences."

For holiday revelers, or anyone who drinks to excess in a single evening, the next day is likely to bring great discomfort in the form of a hangover. Painkillers like aspirin may help with headaches, but don't take acetaminophen, a common alternative. The drug can interact with alcohol and damage the liver.

Drinking coffee won't help, either. Twombly explains, "It might help with drowsiness, but it will have no effect whatsoever on how intoxicated you are or how rapidly the alcohol is absorbed or eliminated from the body."

The only real cure for a hangover is time, Twombly says. "Sleeping it off, eating a little and drinking non-alcoholic beverages can help. But you basically have to wait for the alcohol and its by-products to be cleared from your system."

If you get a hangover over the holidays, let it inspire a New Year's resolution—to drink responsibly and moderately in the coming year. ■



Definition

Genes

Stretches of DNA, a substance you inherit from your parents. Genes affect characteristics like height, eye color and how likely you are to become addicted to alcohol.

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Dealing With Hearing Loss

Hearing Aids Can Help

Hearing loss can be frustrating. It can make it hard to understand and follow a doctor's advice, to respond to warnings and to hear doorbells and alarms. Not being able to follow a conversation can also make you feel left out and alone—especially during the holidays, when families and friends gather for dinners and other parties. When many people talk at the same time, it's hard for those with hearing loss to understand what people are saying. But there are ways to treat hearing loss. The most common is to wear a hearing aid.

Hearing loss happens for many reasons. Some people lose their hearing slowly as they age. In fact, hearing loss is one of the most common conditions affecting older adults. According to a 2003 study, hearing loss is the third most common chronic illness in older Americans, behind high blood pressure and arthritis. Roughly 1 in 3 people between the ages of 65

and 74 and nearly half of those 75 and older have hearing loss.

Another reason for hearing loss may be exposure to too much loud noise—a condition known as noise-induced hearing loss. Many construction workers, farmers, musicians, airport workers, tree cutters and people in the armed forces have noise-induced hearing loss. Hearing loss can also be caused by ear infections, heart conditions or stroke, head injuries, tumors and certain medicines.

If you think you have a hearing



problem, talk to your doctor. Your doctor may refer you to an otolaryngologist, a specialist who will try to find out why you have hearing loss. He or she may also refer you to an audiologist, who can measure your hearing. Otolaryngologists and audiologists can work together to find a treatment that is right for you.

The most common treatment for hearing loss is a hearing aid, a small electronic device worn in or behind the ear. Hearing aids help make some sounds louder so that a person with hearing loss can listen, communicate and participate more fully in daily activities. Still, only 1 out of 5 people who would benefit from a hearing aid actually uses one.

Researchers supported by NIH are working to improve hearing aid technology. They are exploring how to improve signals so that speech sounds are more realistic. And they are working to improve a hearing aid's microphone so that it focuses on sounds coming from a specific direction and not background noises.

If your doctor recommends a hearing aid, you can read more about the most common styles, what to consider when purchasing a hearing aid and how to adjust to and care for one. See the links in the side box for more information. ■



Wise Choices Recognize Hearing Loss

If you answer "yes" to 3 or more of the questions below, consult with your doctor.

- Do you have a problem hearing over the telephone?
- Do you have trouble following a conversation when 2 or more people are talking at the same time?
- Do people complain that you turn the TV volume up too high?
- Do you have to strain to understand conversations?
- Do you have trouble hearing in a noisy background?
- Do you find yourself asking people to repeat themselves?
- Do many people you talk to seem to mumble (or not speak clearly)?
- Do you misunderstand what others are saying and respond inappropriately?
- Do you have problems understanding the speech of women and children?
- Do people get annoyed because you misunderstand what they say?



Web Sites

- www.nidcd.nih.gov/health/hearing/hearingaid.asp
- www.nidcd.nih.gov/health/hearing

Health Capsules

Lack of Sleep Disrupts Emotional Controls

Most of us know that sleepless nights can unhinge your emotions. Now scientists have a better idea of why this happens. They've shown that lack of sleep strongly activates the brain's emotional centers and weakens the brain circuits that keep your emotions under control.

Scientists know that lack of sleep can interfere with your health in many ways. It can disrupt your learning and memory and your ability to fight disease. But they've understood much less about how sleep and emotions are connected in the brain.

NIH-funded researchers scanned the brains of 26 healthy adults while they looked at 100 images. At first, the images were neutral—

like a chair or a bowl of fruit. Later, they became more unpleasant and disturbing—like a dirty toilet bowl, a burn victim or mutilated bodies.

Some participants had a good night's sleep before the brain scan. Others had been kept awake for about 35 hours straight—about how long you'd be up if you stayed awake all night and into the next afternoon without naps.

For everyone, the disturbing pictures led to greater activation of a primitive brain region that triggers strong emotions. But the activation was 60% more intense in the people who were sleep deprived and spread over a larger area.

Lack of sleep had another effect on the brain's circuitry. In the sleep-

deprived group, the brain's emotion center seemed to be more strongly connected to a primitive, impulsive brain region and less connected to a region that normally keeps emotions and behaviors in check.

The researchers say their study demonstrates the dangers of not sleeping enough. Their findings suggest that sleep restores the control of our emotional brain circuits and helps us face the next day's challenges and social interactions. ■



Web Sites

- http://health.nih.gov/result.asp?terms=sleep&disease_id=601
- http://newsinhealth.nih.gov/2007/April/docs/01features_01.htm

Diabetes Rates Increasing Among Youth

Soaring obesity rates are making type 2 **diabetes**, a disease that used to be seen mostly in adults over age 45, more common among young people. The National Diabetes Education Program (NDEP) has created new resources to help teens diagnosed with diabetes, along with their parents, manage their disease.

Diabetes is a group of diseases marked by high levels of **glucose** in the blood. Persistent high levels can lead to blindness, kidney failure, am-

putations, heart disease and stroke. Type 2 diabetes, formerly called adult-onset diabetes, is the most common form. People can develop it at any age. Being overweight and inactive increase your risk.

NDEP's new *Tips for Teens with Diabetes* series encourages youth to take steps to manage their disease for a long, healthy life. It includes topics such as *What is Diabetes?*, *Make Healthy Food Choices* and *Dealing with the Ups and Downs of Diabetes*. NDEP also created a tip sheet for teens at risk for type 2 diabetes, called *Lower Your Risk for Type 2 Diabetes*.

There's also an interactive online quiz for teens with diabetes. All these are available at no charge. ■



Definitions

Diabetes

A disease in which the body has trouble controlling the level of glucose in the blood.

Glucose

A type of sugar. When the glucose level in your blood gets too high, it can damage your tissues and organs.



Web Site

- www.YourDiabetesInfo.org or 1-888-693-NDEP (6337)



Featured Web Site Aging and Health en Español

www.nia.nih.gov/Espanol

This new Spanish language site provides accurate, up-to-date information on health issues affecting Hispanic seniors. Get tips for maintaining a healthy lifestyle and learn about Alzheimer's disease, cancer and other disorders and issues that affect older adults.



For more health information from NIH, visit

<http://health.nih.gov>