ALCOHOL ABUSE

An introduction to aging science brought to you by the American Federation for Aging Research
WHAT DO WE MEAN BY ALCOHOL ABUSE AND DEPENDENCE?

According to the National Institute for Alcohol Abuse and Alcoholism, alcohol abuse describes a pattern of drinking in which a person uses alcohol in a way that may be harmful to themselves or to others.

Alcoholism or alcohol dependence is a disease. It is chronic, or lifelong, and it can be both progressive and life threatening. Its short-term effects on the brain are what cause someone to feel high, relaxed, or sleepy after drinking. In some people, alcohol’s long-term effects can change the way the brain reacts to alcohol. As a result, the urge to drink can be as compelling as the hunger for food. Both a person’s genetic make-up and environment contribute to the risk for alcoholism.

The following characteristics are typical of alcoholism:

- Craving—A strong need, or compulsion, to drink
- Loss of control—The inability to stop drinking once a person has begun
- Increased tolerance—The need for increasing amounts of alcohol to get “high”
- Social problems—This could include problems at work or with family members, significant others, but it also includes legal problems, such as arrests for drinking under the influence
- Physical dependence—Withdrawal symptoms, such as nausea, headaches, sweating, shakiness, and anxiety, can occur when alcohol use is stopped after a period of heavy drinking. Some individuals experience symptoms such as these in the middle of the night after abstaining for as little as four or five hours. People with chronic alcohol problems can have very severe withdrawal symptoms that can result in seizures and ultimately death.

Alcohol abuse in older adults
Among older adults, there actually are two types of problem drinkers—early and late onset. Some individuals have been heavy drinkers for many years, but over time, the same amount of liquor packs a more powerful punch. Others develop a drinking problem later in life. Alcohol problems among older persons are often mistaken for other aging-related conditions. Caregivers must be aware that alcohol may be the underlying cause of problems assumed to result from age. In addition to depression, these conditions include sleeping problems, eating poorly, heart failure, and frequent falls, and car crashes.

Part of the problem with diagnosing older adults is that it is very difficult to determine if they abuse or are dependent on alcohol. Often, they don’t display the same severity of symptoms as younger people.

And many of the symptoms they do experience, such as difficulty with memory, can be confused with other age-related problems. Also, seniors typically drink at home rather than in public, so they may have legal problems that are different from those younger people experience. For example, older individuals rarely get involved in fights after drinking, although they may arrested for drunken driving.

What is a standard alcoholic drink?
A standard drink is:

- One 12-ounce bottle of beer* or wine cooler (Different beers have different alcohol content. Malt liquor has a higher alcohol content than most other brewed beverages.)
- One 5-ounce glass of wine
- 1.5 ounces of 80-proof distilled spirits
- 8 ounces of malt liquor
- One 4-ounce glass of sherry or other “after dinner” drinks

A moderate amount of alcohol for men and women over age 65 is one drink per day. Driving skills can be impaired by blood alcohol concentrations (BACs) as low as 0.02 percent. A 160-pound man will have a BAC of about 0.04 percent one hour after drinking two standard drinks on an empty stomach.
It doesn’t take much alcohol to impair driving ability. The chances of being killed in a single-vehicle crash increase at a blood alcohol level that a 140-lb. woman would reach after having a single drink on an empty stomach.

HEALTH CONSEQUENCES OF ALCOHOL

Health consequences and risks
Although some studies have shown that moderate drinking, such as one drink a day, can have health benefits, these benefits don’t always outweigh the risks, especially for older adults. These risks include:

Drinking and driving—It doesn’t take much alcohol to impair driving ability. The chances of being killed in a single-vehicle crash increase at a blood alcohol level that a 140-lb. woman would reach after having a single drink on an empty stomach.

Medical conditions—Chronic conditions such as hypertension, balance problems, or depression all interact badly with alcohol. Persons with these conditions probably shouldn’t drink at all—especially older persons. Additionally, many medications interact harmfully with alcohol. When taking any medication, read package labels and warnings carefully. Anyone with any chronic diseases or taking psychoactive medications should consult with their primary care physician before deciding to drink for “health reasons.”

Breast cancer—Research suggests that as little as one drink per day can slightly raise the risk of breast cancer in some women. It is not possible to know how alcohol will affect the risk of breast cancer in any particular woman. The most important thing to remember is that when older drinkers get to three drinks a day, there are higher rates of mortality. Older adults should be very careful not to drink excessively.

Other dangers for older adults who drink

Dependency—Older adults are at risk for alcohol dependency for a number of reasons. Aging seems to reduce the body’s ability to adapt to alcohol, for one thing. Older adults reach higher blood levels of alcohol even when drinking the same amount as younger people. This is due to an age-related decrease in the amount of body water in which alcohol is dispersed. Even at the same blood alcohol level, older adults feel some of the effects of alcohol more severely than younger people do.

Life changes—Major life changes such as shifts in employment, failing health, or the death of loved ones bring loneliness, boredom, anxiety, and depression. People drink to cope with these changes. As a result, they can inadvertently drink much more...
than they intended to. According to research based on Medicare claims, substance abuse plays a role in almost 70 percent of all hospitalizations and in between 20 to 50 percent of all admissions to nursing homes.

**Medications**—There are more than 150 medications that should not be mixed with alcohol. Interactions can result in illness, injury, and even death. For example, if you are taking antihistamines for a cold or allergy and drink alcohol, the alcohol will increase the drowsiness that the medicine alone can cause, making driving or operating machinery even more dangerous. And if you are taking large doses of the painkiller acetaminophen and drinking alcohol, you are risking serious liver damage.

Mixing alcohol and prescriptions may be increasingly problematic for Boomers as they age. Thanks to medical breakthroughs and availability, individuals in this age group are more likely to turn to medications than their parents’ generation was. This may lead to more of a problem with interactions of alcohol and prescription psychoactive medications such as sedatives, hypnotics, tranquilizers, and pain killers. If you are taking any of these psychoactive medications, drinking could make things much worse—or even become deadly.

Experts urge you to check with your physician or pharmacist before drinking any amount of alcohol if you are taking any kind of over-the-counter or prescription medication.

**Does alcohol affect men and women differently?**

Men are at much higher overall risk for abusing or becoming dependent on alcohol than women. According to the U.S. Center for Disease Control (CDC), “…men average about 12.5 binge drinking episodes per year, while women average about 2.7 binge drinking episodes per year.”

Women, however, are most at risk for developing a drinking problem in late life. Older women may be especially vulnerable because they are more likely to outlive their spouses and face other losses that may lead to loneliness and depression. Women are also at greater risk for alcohol-related health problems as they age.

Medical literature actually describes older women as having what is called “telescoping of symptoms.” Whereas men can have a 20- to 30-year career of heavy drinking and have moderate problems, women will have a much shorter period—perhaps five years—before they get into trouble and end up in treatment much more quickly. Finally, there is some misunderstanding among older adults as to what constitutes an alcoholic beverage. In many cases, older adults don’t even consider that drinks such as beer, wine, and sherry are alcoholic.

A free 12-minute video, Alcohol: A Women’s Health Issue, is available by calling (301) 443-3860, or by writing the National Institute on Alcohol Abuse and Alcoholism Publications and Distribution Center, P.O. Box 10686, Rockville, MD 20849-0686. The film profiles women recovering from alcohol problems and describes the health consequences of heavy drinking in women. The video can also be ordered at this website: [http://pubs.niaaa.nih.gov/publications/english-order.htm](http://pubs.niaaa.nih.gov/publications/english-order.htm), as can a PDF-format brochure of the same name.
ALCOHOL ABUSE AND ACUTE RESPIRATORY DISTRESS

It is common knowledge that alcohol abuse damages the liver. Yet evidence developed within the last decade shows that overuse of alcohol can damage the lungs as well. Although alcohol abuse does not cause a specific disease, it reduces the capacity of the lungs to combat and recover from infections and injury. Alcoholics are three to four times as likely as non-alcoholics to develop acute respiratory distress syndrome (ARDS), a life-threatening lung condition characterized by swelling and fluid build-up in the lungs’ air sacs. Fatal in 30 to 40 percent of cases, ARDS can be caused by any major inflammation or injury to the lungs. Severe pneumonia and sepsis (severe system-wide infection) are among the most common causes.

ARDS is linked to alcohol use for several reasons. First, alcoholics are more likely to aspirate bacteria than non-alcoholics because of pro-bacteria changes in their mouths as well as diminished cough and gag reflexes. Additionally, numerous studies have found that alcohol abuse impairs immune function in the lungs and reduces the effectiveness of surfactant, a substance that stabilizes the lungs’ alveoli, or air sacs. Reduced immune function makes alcoholics more likely to suffer from pneumonia, one of the major risk factors for ARDS. They are also more likely to develop sepsis, partly from an increased likelihood of major physical injury. In addition, alcoholics who develop ARDS are more likely to die from the condition than non-alcoholics.

Scientists have discovered several mechanisms underlying the effect of excessive alcohol intake on the lungs. One is depletion of the antioxidant glutathione, making the lungs more susceptible to oxidative stress and therefore more likely to succumb to infection or injury. Unfortunately, studies in mice show that supplementary glutathione is only effective as a treatment if given as a preventive—it will not reverse ARDS.

Alcohol abuse also decreases levels of granulocyte/macrophage colony-stimulating factor (GM-CSF), a substance important to lung health. GM-CSF may be useful as a treatment for ARDS. In a small study, treating patients in septic shock with GM-CSF reduced lung injury. The NIH is currently conducting a large, multicenter trial whether supplementing ARDS patients with GM-CSF can improve outcomes. However, the most effective way to battle ARDS will likely remain prevention—in other words, helping alcoholics give up their deadly habit.

DIAGNOSING ALCOHOL ABUSE

During his term in office (2002-2006) former Surgeon General Richard H. Carmona, MD, MPH, FACS, said that screening for alcohol abuse saves lives. Carmona recommended screenings for Americans who use alcohol—this is a first step in saving lives by maximizing the power of prevention.

“Drinking can have unintended and even tragic consequences,” said Carmona. “In the United States, alcohol consumption leads to more than 100,000 deaths each year from alcohol-related injuries and illnesses.”
As a former paramedic and nurse, and more recently a trauma surgeon and community law enforcement officer, I have seen the results of alcohol use and abuse at close range.

According to a recent Massachusetts General Hospital report, for example, of the 108 million annual visits to U.S. emergency rooms, 7.6 million—three times the previous estimate—are alcohol-related. In 2009, according to the National Highway Traffic Safety Administration (NTSA) an estimated 10,839 people died in alcohol-impaired driving crashes. Drunk driving fatalities accounted for 32 percent of all traffic deaths in that year. An individual is alcohol impaired if he or she has a blood alcohol content of .08 grams per deciliter (the legal limit in all 50 states and the District of Columbia) or higher.

Carmona encouraged every American who drinks alcohol to get an alcohol screening to quickly learn about his or her own risks. It takes only a few minutes for a physician to screen for alcohol abuse, but it can make a lifetime of difference for a patient and save our society almost $185 billion annually in health and safety costs and productivity losses.

Community surveys have estimated the prevalence of problem drinking among older adults to range from 1 percent to 15 percent. Among older women, the prevalence of alcohol misuse ranged from less than 1 percent to 8 percent in these studies. As the population age 60 and older increases, so too could the rate of alcohol problems in this age group.

Prevention, especially among an aging generation, is key to saving lives. Health care providers can have a major impact on helping older people recover from alcohol dependence and abuse. A brief screening and motivational intervention with feedback can be a very effective way to help a large number of individuals reduce their drinking to a safer level. The most effective way to talk to an older person about drinking is to relate it to his or her health.

TREATMENTS FOR ALCOHOL ABUSE

While there is no known cure for alcoholism at this time, there are many treatments and treatment programs available to help alcohol-dependent individuals. The type of treatment an individual receives depends on the severity of that individual’s alcoholism and the resources that are available in his or her community.

Treatment may include detoxification (the process of safely getting alcohol out of your system), taking doctor-prescribed medications to help prevent a return (or relapse) to drinking once it has stopped, and individual and/or group counseling. Among other things, counseling teaches alcohol-dependent individuals to identify situations and feelings that trigger the urge to drink and to find new ways to cope that do not include alcohol use. These treatments are often provided on an outpatient basis.

Many alcoholism treatment programs include Alcoholics Anonymous (AA) meetings. Even those who are helped by AA usually find that AA works best in combination with other forms of treatment, including counseling and medical care.
not everyone responds to AA’s style or message, and other recovery approaches are available. Even those who are helped by AA usually find that AA works best in combination with other forms of treatment, including counseling and medical care.

Some individuals who have stopped drinking after experiencing alcohol-related problems choose to attend AA meetings for information and support, even though they have not been diagnosed as dependent on alcohol.

Although treatment can be just as effective for older adults as for younger, many seniors avoid it. Some individuals do not realize that they need help. For these individuals, it is up to family and friends to intervene. Social support plays a key role in helping people to recover. In addition to helping to get alcohol-dependent individuals into treatment, families and friends can help individuals to reduce consumption. They can also encourage them to get involved in senior centers and to engage in other kinds of social activities.

For other individuals, the stigma and shame associated with the term “alcoholic” can be a powerful deterrent to seeking help. According to the Substance Abuse and Mental Health Services Administration (SAMHSA), the stigma surrounding treatment is a major reason why people do not seek help. Older women, in particular, hesitate to report their drinking for this reason—even when they know they have a problem. Researchers are seeking ways to screen and counsel older adults who may not be ready to admit they have a problem, and have developed several effective brief interventions. The best programs for older adults address the unique concerns facing older problem drinkers—issues related to depression, grief and boredom, loss and loneliness.

**COUNSELING FOR ALCOHOL ABUSE**

There are numerous types of counseling that are available to help older adults stop drinking. Below are some of the more common ones.

**Brief interventions and motivational counseling**

Improving an older adult’s drinking habits could be as simple as a 15-minute conversation with his or her doctor. Brief interventions, which consist of one or more short counseling sessions, can be remarkably effective at reducing excessive drinking. Often called motivational counseling, this type of counseling is designed to be non-confrontational.

Rather than demand a commitment to abstinence, the physician or counselor offers advice and information, placing responsibility for change on the patient. Several studies have found motivational interviewing to be an effective tool for reducing alcohol use in adults. For example, a brief intervention called Project GOAL, consisting of two short counseling sessions and two follow-up phone calls, yielded significant reductions in weekly alcohol use as well as fewer excessive and binge drinking episodes.

In addition, brief motivational or “compliance” therapy is helpful in encouraging adults to reliably take medication prescribed to treat alcoholism.

Recently, researchers in New Mexico found a computerized version of a brief intervention called The Drinker’s Check-Up to be effective in reducing problem drinking behavior in 61 adults identified as at risk for alcoholism. The intervention, which took participants one to two hours to complete, assessed drinking habits and provided personalized feedback and guidance based on the participant’s readiness for change. Participants reduced their drinking by an average of 50 percent, with this reduction sustained at follow-up one year later.

Because brief interventions are low-cost, accessible, effective, and appealing to adults unwilling to label themselves as alcoholics, many experts recommend that a brief intervention be the first treatment option for older adults.

**Family interventions**

Involving an older adult’s family in counseling can be extremely helpful. First, a counselor meets with family members a few days before a planned meeting with the problem drinker to hear their concerns. The counselor helps family members learn to communicate effectively with the substance abuser, primarily by avoiding emotional confrontation and keeping conversation supportive and factual.

Two University of Oklahoma researchers, Drs. Sorocco and Ferrell, note that family interventions with older adults are most effective when only one or two significant family members participate. Too many participants can overwhelm older adults. In addition, younger relatives should not be included in the intervention, because their participation increases feelings of shame for their older relative. In addition, the researchers suggest avoid-
Cognitive-behavioral therapy

A more traditional approach to mental health problems, cognitive-behavioral therapy takes place through a number of counseling sessions over weeks or months. The counselor helps the patient learn self-management and coping skills that can help him or her stop drinking and remain sober. The goal is to help the patient identify internal thought processes as well as outside pressures that lead to drinking, making it possible for the patient to modify his or her behavior.

Cognitive-behavioral therapy is very effective for treating substance abuse as well as other mental health problems in older adults. It can be combined with medication to help improve outcomes.

MEDICATIONS FOR ALCOHOL ABUSE

Once an alcohol-dependent individual has withdrawn from alcohol and is on the road to sobriety, medications may be helpful in reducing the urge to drink. Campral helps recovering alcoholics maintain abstinence by reducing the physical and emotional discomfort associated with alcohol withdrawal. While the mechanism for action is not yet fully understood, Campral is believed to ease the physical discomfort that occurs when someone dependent on alcohol stops drinking.

Campral proved safe and effective in multiple placebo-controlled clinical studies involving alcohol-dependent patients who had already been detoxified and stopped drinking. It is not addicting and was generally well tolerated in clinical trials. The most common adverse events reported included headache, diarrhea, flatulence, and nausea. Treatment with this medication is suggested as part of a comprehensive management program that includes psychosocial support.

Other medications approved for treating alcoholism include naltrexone and disulfiram. Naltrexone can be taken as infrequently as once a month and helps patients reduce their consumption of alcohol, possibly by blocking neurotransmitters involved with alcohol dependence. Disulfiram, on the other hand, helps alcoholics avoid drinking by causing unpleasant side effects when a patient ingests alcohol.

Medication therapy is generally used in conjunction with counseling. Approaches that combine motivational counseling with naltrexone have been found to be effective in older adults.