

WHAT CAN ALCOHOL DO?

According to the National Institute on Alcohol Abuse and Alcoholism (Miller, Zweben, DiClemente, & Rychtarik, 1995; NIAAA, 1999), there are many ways that alcohol can affect your body:

- Heart disease—Some heavy drinkers can develop heart trouble because alcohol can weaken the muscles in and around the heart. Also, heavy drinking can lead to high blood pressure, heart disease, hypertension, and increased risk for some kinds of stroke.

- Brain—Alcoholism may “speed up” normal aging or cause premature aging of the brain. Research also shows that shrinkage of the frontal lobes increases with heavy drinking and is related to intellectual impairment in both older and younger drinkers.

- Digestive problems—Heavy drinkers are more prone to have excessive heartburn, ulcers, and even bleeding in the digestive system. They may suffer from illnesses caused by an injured pancreas as well. The pancreas helps to regulate the amount of blood sugar by making insulin. When there is heavy drinking, the pancreas can be affected by becoming inflamed and extremely painful. This is called “pancreatitis” and it can cause diabetes or even death. Symptoms of pancreatitis are severe abdominal pain and excessive weight loss.

Also, drinking alcohol interferes with sugar processing and the hormones that regulate sugar levels. Chronic heavy drinkers often have low levels of healthy blood sugars (called glucose). Because many heavy drinkers go without proper food while they are drinking, their stores of healthy sugar can be exhausted in a few hours. Also, the body’s monitoring of sugar can be affected while alcohol is being digested. The combination of these effects can cause severely low levels of blood sugar (a condition called “hypoglycemia”) from 6 to 36 hours after a binge-drinking episode. Failure to treat this condition could have life-threatening results.

- Alcohol-related liver disease—Some drinkers develop alcoholic hepatitis, or inflammation of the liver, as a result of heavy drinking. Symptoms include fever; yellowing of the skin, eyeballs, and urine (“jaundice”); and pain in the abdomen. Although this condition can cause death if alcohol consumption continues, the process can be reversed. Another way that alcohol can affect the liver is by causing “cirrhosis”—10 to 20% of all heavy drinkers develop this disease. This scarring of the liver prevents it from filtering out the waste from the body and can cause death. Unlike alcoholic hepatitis, it is not possible to reverse the damage done to the liver by cirrhosis, although the symptoms can be relieved and liver functioning can improve by abstaining from alcohol. Treatment for the complications caused by cirrhosis is available, and the last resort is liver transplantation. However, alcohol-induced liver damage can disrupt the body’s metabolism, eventually impairing the function of other organs.

- Cancer—Long-term heavy drinking increases the risk of developing several types of cancer because alcohol reduces the body’s ability to fight diseases and infections. Some forms of cancer

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are especially common in heavy drinkers such as cancer of the esophagus, mouth, throat, and voice box. Women who drink two or more drinks a day are at greater risk of developing breast cancer. Other cancers that may be related to heavy drinking include cancer of the colon and the rectum.

- **Reproductive system**—Heavy drinking has a major effect on the reproductive system, affecting sex drive, fertility, and pregnancy. For instance, alcohol is directly harmful to the testes, causing reduced testosterone levels in men. Prolonged low testosterone levels may contribute to a “feminization” of male sexual characteristics, for example, breast enlargement. In women, chronic heavy drinking can contribute to numerous reproductive disorders, including cessation of or irregular menstruation, menstrual cycles without ovulation, early menopause, and increased risk of spontaneous abortions. Drinking during pregnancy can have numerous harmful effects on the fetus, such as disease (fetal alcohol syndrome), miscarriages, birth defects, and mental retardation. Finally, alcohol dependence and related medical problems, such as brain and liver damage, tend to progress more rapidly in women than in men.

- **Breathing disorders**—People who drink heavily appear to be at increased risk for sleep apnea, especially if they snore. Sleep apnea is a condition where the upper air passage narrows or closes during sleep, resulting in a lack of oxygen to the brain. In addition, drinking alcohol at night can lead to narrowing of the air passage, causing episodes of apnea. Alcohol’s depressant effects can increase the duration of periods of apnea as well. Among patients with severe sleep apnea, heavy drinking is associated with five times the risk for fatigue-related traffic accidents compared to people with apnea who do not drink alcohol. Finally, the combination of alcohol, sleep apnea, and snoring increases a person’s risk for heart attack, arrhythmia, stroke, and sudden death.