University of South Carolina Upstate

Alcohol and Other Drugs Health Risks

RESPONSIBLE OFFICE: **OFFICE OF RISK MANAGEMENT**

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The University of South Carolina Upstate is committed to providing a safe, healthy learning community. Alcohol and other drugs affect the health and safety of students, faculty, staff, volunteers, and campus visitors, and are very costly in terms of campus crime and interference with the learning environment. Academic consequences for students include missed classes, poor school performance, withdrawal from courses, and withdrawal from school. Acute risks for all individuals include impaired driving, unsafe sexual behavior, fights, sexual assaults, suicide attempts, unintentional injuries, overdoses, and death. The health risks associated with the use of alcohol and other drugs are provided below.

In addition to this Alcohol and Other Drugs Health Risks document, the University also provides an **Alcohol and Other Drugs Policy** document and an **Alcohol and Other Drugs Treatment Resources** document.

ALCOHOL HEALTH RISKS

Alcohol enters your bloodstream as soon as you take your first sip **(Alcohol Consumption Overview**). Once alcohol is swallowed, it is not digested like food. Instead, a small amount of alcohol is absorbed directly by the tongue and the lining of the mouth. The alcohol then is absorbed directly into your bloodstream through the tissue lining of the stomach and small intestine. (**Alcohol Metabolism**).

Alcohol's immediate effects can appear within about 10 minutes (**Alcohol Consumption Overview**). Because alcohol depresses the central nervous system, it increases the time needed to react to situations, reduces your ability to see clearly, changes your judgment of speed and distances, and makes you more prone to take chances and do things you would not normally do (**Alcohol and Other Drugs**).

Normally your vision is restricted at night, so it is especially dangerous to drink and drive after dark. Alcohol reduces your ability to recover from the glare of headlights, and it makes you less aware of what is happening to your safe driving abilities. It becomes difficult for you to judge your condition; you can gain confidence about driving when you should not be driving at all. The symptoms of alcohol consumption can begin long before you become intoxicated or are even legally impaired (**Alcohol and Other Drugs**).

Alcohol abuse can affect your mood, sleep, immune system, behavior (**Tips on Cutting Down**), impulse control, decision-making, motor coordination, and body organs (**Alcohol Overdose Dangers**). Immune system effects can include susceptibility to pneumonia, tuberculosis, respiratory viruses, acute respiratory distress syndrome, sepsis, alcoholic liver disease, and certain cancers; a higher incidence of postoperative complications; and slower and less complete recovery from infection and physical trauma, including poor wound healing (**Alcohol and Immune System**).

Alcohol use can affect unborn children. Not all infants born to women who drink exhibit abnormal development (**Alcohol and Pregnancy Q&A**). However, there is no known safe amount of alcohol use during pregnancy or while trying to get pregnant. There also is no safe time to drink during pregnancy. All types of alcohol are equally harmful, including all wines and beer (**Alcohol Use in Pregnancy**).

Below is a list of specific health risks due to alcohol abuse. (Alcohol risks and possible health effects as well as the organization and formatting of the material were taken from **The Ohio State University**.)

Risk	Possible Health Effect
Alcohol Use Disorders: Alcoholism & Alcohol Abuse	Alcohol withdrawal syndrome Cardiomyopathy Certain cancers (oral, pharynx, esophagus, larynx, and lung) Cirrhosis of the liver Deficiency in thiamine Gastrointestinal disorders Heart Disease Korsakoff's psychosis Learning and memory problems Nerve damage Pancreatitis Permanent damage to brain and liver Wernicke's encephalopathy
Birth Defects	Fetal alcohol spectrum disorders, including fetal alcohol syndrome Miscarriage Physical and mental birth defects Stillbirth
Chronic Heavy Drinking or Binge Drinking Heavy: 15 drinks per week for men; 8 drinks per week for women Binge: 5+ drinks for men in 2 hours; 4+ drinks for women in 2 hours	Alcohol poisoning Anemia Cancer (mouth, throat, larynx, esophagus, liver, breast, colon) Cardiovascular disease Dementia Depression Gout High blood pressure Liver disease, heart disease Nerve damage Pancreatitis Sleep disorders STDs (STIs), unwanted pregnancy from unsafe sex Stroke
Intoxication	Dehydration Disturbed balance, slurred speech, blurred vision, heavy sweating, and dulled sensation of pain

Disrupted balance of minerals in the blood
Disrupted judgment
Gastritis
Hangovers consisting of headache, thirst, nausea and dizziness, and fatigue
Impaired brain function
Impaired judgment
Impaired motor skills
Increased chance of accidents, injuries, falls, and death; sexual victimization and suicide
Increased lethargy
Inflammation of esophagus
Interference with sleep rhythms

REDUCING YOUR RISKS DUE TO ALCOHOL USE

Alcohol is a factor in many motor vehicle crashes, falls, burns, drownings, suicides, homicides, sexual assaults, and the transfer of sexually transmitted diseases (infections). If you choose to drink, take whatever steps are necessary to avoid putting yourself or others at risk of harm (**How to Reduce Your Risks**).

1. Set goals. Decide how many days a week you want to drink and how many drinks you'll have on those days. It's a good idea to have some days when you don't drink. People who always stay within the low-risk limits when they drink have the lowest rates of alcohol-related problems (**How to Reduce Your Risks**).
2. Avoid “triggers.” What triggers your urge to drink? If certain people or places cause you to drink even when you don’t want to, try to avoid them. If certain activities, times of day, or feelings trigger the urge, plan to do something else instead of drinking. If drinking at home is a problem, keep little or no alcohol there (**How to Reduce Your Risks**).
3. Recognize that there are two types of pressure: **Direct social pressure** is when someone offers you a drink or an opportunity to drink. **Indirect social pressure** is when you feel tempted to drink just by being around others who are drinking—even if no one offers you a drink. Take a moment to think about situations where you feel direct or indirect pressure to drink or to drink too much. Then, have some resistance strategies lined up in advance. If you expect to be offered a drink, you'll need to be ready to deliver a convincing "no thanks." Your goal is to be clear and firm, yet friendly and respectful. You could say:
   No, thank you.
   No, thanks, I don't want to.
   You know, I'm (cutting back/not drinking) now (to get healthier/to take care of myself/because my doctor said to). I'd really appreciate it if you'd help me out (**Build Drink Refusal Skills**).
4. Be aware that body size affects the absorption of alcohol in your system. If your weight is low, you feel the effects of alcohol more quickly because you have less tissue to absorb alcohol. So alcohol usually affects women more quickly than it does men (**What Happens When You Drink Alcohol**).
5. Keep track of *every* drink if you're cutting back so you stay within your limits (**Build Drink Refusal Skills**).
6. Have non-alcoholic drinks always in hand if you're quitting, or as "drink spacers" between drinks if you're cutting back (**Build Drink Refusal Skills**).
7. Eat before and while you are drinking. Alcohol enters your system through your stomach and small intestine. If you stomach is empty when you start drinking, the alcohol will enter

your bloodstream more quickly. Drink plenty of water, and don't drink sugary or energy drinks along with alcohol (**7 Tips Safe Drinking**).
8. Skip the drinking games and shots. Many such games promote binge drinking and high-intensity drinking (**7 Tips Safe Drinking**).
9. Don't drink and drive. Plan to ride with someone else if you plan to drink, but don't ride with a driver who has been drinking (**7 Tips Safe Drinking**).
10. Volunteer to be the designated driver.
11. Make sure your drink is safe (**Your Drink is Drugged**).
    a. Watch your drink at all times.
    b. Don't drink from a can or bottle that you didn't open yourself.
    c. Don't take a drink from a punch bowl.
    d. Don't drink from a container that's being passed around.
    e. If someone offers you a drink from the bar at a club or party, don't take it. Instead, go to the bar to order your own drink, watch it being poured, and carry the drink yourself.
    f. Don't leave your drink unattended while talking, dancing, using the restroom, or making a phone call.
    g. If you realize that your drink has been left unattended, throw it out and get a new one.
    h. Don't drink anything that has an unusual taste or appearance, like a salty taste, or unexplained residue.
    i. Don't mix drugs and alcohol. Even over-the-counter drugs like cold medicine can react with alcohol and other substances in negative ways.
    j. Watch out for your friends and ask them to watch out for you. Have a plan to periodically check up on each other.
    k. If your friend appears very intoxicated, gets sick after drinking a beverage, passes out and is difficult to wake up, seems to have trouble breathing, or behaves in unusual ways, do what you need to do to make sure your friend is safe. Call 911 if necessary.

STOP ALCOHOL POISONING/ALCOHOL OVERDOSE

Alcohol poisoning, an alcohol overdose, occurs when there is so much alcohol in the bloodstream that areas of the brain controlling basic life-support functions—such as breathing, heart rate, and temperature control—begin to shut down. Alcohol overdose can lead to permanent brain damage or death. Anyone who consumes too much alcohol too quickly may be in danger of an alcohol overdose. This is especially true of individuals who engage in binge drinking (**Understanding the Dangers of Alcohol Overdose**).

Research shows that teens and college-age young adults often engage in binge drinking and high-intensity drinking. Binge drinking typically occurs after a woman consumes 4 drinks or a man consumes 5 drinks in about 2 hours (**Binge Drinking Definition**). High-intensity drinking is defined as drinking two or more times the binge-drinking thresholds for women and men (**High Intensity Drinking Definition**). Drinking such large quantities of alcohol can overwhelm the body's ability to break down and clear alcohol from the bloodstream. This leads to rapid increases in blood alcohol concentration, and significantly impairs the brain and other bodily functions.

Symptoms of Alcohol Poisoning/Alcohol Overdose (**Understanding the Dangers of Alcohol Overdose**)
1. Mental confusion, stupor
2. Difficulty remaining conscious, or inability to wake up
3. Vomiting
4. Seizures

5. Slow breathing (fewer than 8 breaths per minute)
6. Irregular breathing (10 seconds or more between breaths)
7. Slow heart rate
8. Clammy skin
9. Dulled responses, such as no gag reflex, which prevents choking
10. Extremely low body temperature, bluish skin color, or paleness

If a person has any of these symptoms, he or she is suffering from alcohol poisoning/alcohol overdose. You should:

1. Get help immediately. Call 911. Don't play doctor—cold showers, hot coffee, and walking do not reverse the effects of an alcohol overdose and could actually make things worse.
2. While waiting for help to arrive, be prepared to provide information to the responders, including the type and amount of alcohol the person drank; other drugs he or she took, if known; and any health information that you know about the person, such as medications currently taking, allergies to medications, and any existing health conditions.
3. Do not leave the person alone. Keep the person on the ground in a sitting or partially upright position rather than in a chair.
4. Help a person who is vomiting. Have him or her lean forward to prevent choking. If a person is unconscious or lying down, roll him or her onto one side with an ear toward the ground to prevent choking. (**Understanding the Dangers of Alcohol Overdose**)

COMMONLY MISUSED AND ABUSED DRUGS

(2019 National Survey data are for individuals 12 years and older.)

Marijuana is by far the most commonly used illicit drug in the U.S. (**2019 National Survey on Drug Use and Health**). When marijuana is smoked, THC (the ingredient in marijuana that produces the high) quickly passes from the lungs to the bloodstream, the brain, and other organs throughout the body. Teens have started vaping THC; nearly 4% of 12th graders say they vape THC daily (**Marijuana DrugFacts**). The number of young people who believe regular marijuana use is risky is decreasing.

The second most commonly abused drugs in the U.S. are prescription pain relievers including hydrocodone, oxycodone, tramadol, codeine, morphine, prescription fentanyl, buprenorphine, oxymorphone, and hydromorphone, as well as Demerol, methadone, or any other prescription pain relievers (**2019 National Survey on Drug Use and Health**). The misuse of prescription drugs is defined as use in any way not directed by a doctor, including use without a prescription of one's own; use in greater amounts, more often, or longer than told to take a drug; or use in any other way not directed by a physician.

Hallucinogens, including LSD, PCP, peyote, mescaline, psilocybin mushrooms, "Ecstasy" (MDMA or "Molly"), ketamine, DMT/AMT/"Foxy," and Salvia divinorum, are the third most commonly used illicit drugs in the U.S. (**2019 National Survey on Drug Use and Health**). Hallucinogens alter perception (awareness of surrounding objects and conditions), thoughts, and feelings. They cause hallucinations, which are sensations and images that seem real though they are not. Hallucinogens can be found in some plants and mushrooms (or their extracts) or can be made by humans (**Hallucinogens DrugFacts**).

The fourth most commonly abused drugs in the U.S. are tranquilizers and sedatives (**2019 National Survey on Drug Use and Health**). Tranquilizers include benzodiazepine tranquilizers (e.g., as alprazolam, lorazepam, clonazepam, or diazepam products), muscle relaxants, or any other prescription tranquilizer. Sedatives include zolpidem products, eszopiclone products,

zaleplon products, benzodiazepine sedatives (e.g., as flurazepam and temazepam products or triazolam products), barbiturates, or any other prescription sedative. The misuse of prescription drugs is defined as use in any way not directed by a doctor, including use without a prescription of one's own; use in greater amounts, more often, or longer than told to take a drug; or use in any other way not directed by a physician.

Cocaine, including crack cocaine, is the fifth most commonly used illicit drug in the U.S. (**2019 National Survey on Drug Use and Health**). Cocaine is a strong central nervous system stimulant the effects of which appear almost immediately and disappear within a few minutes to an hour (**Cocaine DrugFacts**).

Heroin is the **least** commonly used illicit drug in the U.S. (**2019 National Survey on Drug Use and Health**). Heroin is an opioid made from morphine, a natural substance extracted from the seed pod of various opium poppy plants (**Heroin DrugFacts**). Heroin enters the brain rapidly and affects many brain areas, especially those involving feelings of pain and pleasure and those controlling heart rate, sleeping, and breathing (**2019 National Survey on Drug Use and Health**).

HEALTH RISKS DUE TO DRUG MISUSE AND ABUSE

Drug misuse and abuse risks and possible health effects—excluding that for methamphetamine—as well as the organization and formatting of the material were taken from **The Ohio State University**.

Category	Possible Health Effect
Anabolic Steroids	Aggression or rage Blood clotting and cholesterol changes Delusions Extreme irritability Extreme mood swings Fluid retention Hypertension Impaired judgment stemming from feelings of invincibility Increased risk of contracting HIV/AIDS or hepatitis Kidney cancer Liver cysts Paranoid jealousy Severe acne Men: shrinkage of the testicles (testicular atrophy), reduced sperm count or infertility, baldness, development of breasts (gynecomastia), increased risk for prostate cancer Women: growth of facial hair, male-pattern baldness, changes in or cessation of the menstrual cycle, enlargement of the clitoris, deepened voice
Bath Salts	Agitation Altered mental state Chest pain Extreme paranoia and delusions

	Hallucinations Highly addictive Hypertension Increased blood pressure and heart rate Kidney injury Panic attacks Seizures Violent behavior, self-injury, self-mutilation, suicide
Cannabinoids: Hashish, Marijuana	Anxiety, paranoia and panic attacks Asthma Bloodshot eyes Difficulty speaking, listening, thinking, and problem solving Distorted perception (sight, sound, time, touch) Dry mouth and throat Impaired complex motor skills Impaired concentration Impaired judgment Increased risk of damaging the lungs and reproductive system Increased heart rate Linked to heart attacks Loss of coordination Lowered sperm production Lung cancer Problems with memory and learning Psychological dependence Respiratory problems: bronchitis, emphysema and bronchial asthma
Depressants:	Addiction Confusion Death Fatigue Impaired coordination, memory, judgment Respiratory depression and arrest Barbiturates: Depression Dizziness Fever, irritability Life-threatening withdrawal Poor judgment Slurred speech Unusual excitement Benzodiazepines: Dizziness Flunitrazepam: Memory loss for the time under the drug's effects Urinary retention Visual and gastrointestinal disturbances GHB: Coma Death Drowsiness Loss of consciousness

	Loss of reflexes Nausea/vomiting, headache Seizures Methaqualone: Depression
Dextromethorphan (DXM)	Body rash/itching Closed-eye hallucination Difficulty breathing Dizziness Drowsiness Gastrointestinal disturbances Memory loss Nausea Numbness
Dissociative Anesthetics	Ketamine: Altered body image Altered hearing Aphasia Blunted affect Blurred vision Delirium Dizziness Double vision Euphoria Hallucinations Hypersalivation Hypertension Illusions Impaired attention, memory, judgment Nausea and vomiting Nightmares Involuntary (sometimes voluntary) eye movements Pain at injection site Redness of the skin or mucous membranes Psychotomimetic phenomenon Psychomotor retardation Tachycardia Vivid dreams PCP and analogs: Aggression Decrease in blood pressure and heart rate Depression Loss of appetite Panic Violence
Hallucinogens	Mental disorders Nervousness, paranoia LSD, mescaline, psilocybin: Delusions and hallucinations Increased body temperature, heart rate, blood pressure

	Loss of appetite Numbness, weakness Sleeplessness Tremors Unpredictable psychological effects with “trips” lasting about 12 hours
Inhalants	Aspiration of vomit Birth defects if pregnant Cramps Damage to central nervous system and brain Depression Frostbite Hearing loss Heart failure Hypoxia Kidney damage Limb spasms Memory impairment Muscle weakness Unconsciousness
Opioids	Fentanyl: Confusion Constipation Drowsiness Hypoxia, which could lead to coma or death Nausea Problems breathing Sedation Unconsciousness Heroin: Coma, unconsciousness Confusion Constipation Depressed breathing so overdose can be fatal Highly addictive and tolerance builds up rapidly Increased risk of infectious diseases such as HIV/AIDS and hepatitis Nausea Sedation Staggering gait
Stimulants	Amphetamines: Aggression, erratic behavior Bad feelings as drug wears off Convulsions, coma, death Depression Extreme exhaustion Hallucinations Headache Loss of coordination Low blood pressure Nausea

Panic and paranoia

Physical effects:

- Acne
- Aphasia
- Arrhythmias
- Blurred vision
- Constipation
- Convulsions
- Diaphoresis
- Diarrhea
- Dilated pupils
- Dizziness
- Dry and/or itchy skin
- Dry mouth
- Excessive teeth grinding or jaw clenching
- Fever
- Flushing
- Headache
- Hyperactivity
- Hypertension
- Hypotension
- Insomnia
- Narrowing of blood vessels, blood shot eyes
- Numbness
- Pallor
- Palpitations
- Rapid breathing
- Rapid heart rate
- Restlessness
- Seizure, stroke, coma, heart attack, death can occur with chronic and/or high doses
- Slow heart rate
- Tremors
- Twitching

Psychological effects:

- Aggression
- Alertness
- Amphetamine psychosis can occur with chronic and/or high doses
- Anxiety
- Concentration
- Energy
- Euphoria
- Grandiosity
- Increased libido
- Irritability
- Paranoia
- Psychomotor agitation
- Psychosomatic disorders
- Reduced performance at work, disruption of relationships
- Repetitive and obsessive behaviors
- Self-esteem
- Self-confidence

Sociability
Twitching, tremors

Cocaine:
- Abdominal pain
- Anxiety, panic attacks, paranoia
- Chest pain
- Damage to the lungs
- Damage to the nasal septum due to vasoconstriction
- Damage to the veins, leading to ulcers and gangrene and increased risk of blood-borne infections such as hepatitis or HIV
- Feeling constantly run-down when not taking cocaine
- Headaches
- Heart attacks
- Increased body temperature
- Long-term changes to the brain, particularly in the brain's 'reward' circuits, which control sense of pleasure, and personality changes
- Loss of libido
- Malnutrition
- Nausea
- Raised heart rate and blood pressure
- Respiratory failure
- Strokes or seizures
- Strong psychological dependence which develops quickly
- Tolerance, which builds quickly

Methamphetamine: *****

Short-term effects:
- Bizarre, erratic, aggressive, irritable, or violent behavior
- Faster breathing
- Increased blood pressure and body temperature
- Loss of appetite, disturbed sleep patterns, or nausea
- Rapid or irregular heartbeat

Chronic use:
- Anxiety, confusion, insomnia
- High blood pressure leading to heart attacks, strokes, and death
- Intense itching causing skin sores
- Liver, kidney, and lung damage
- Paranoia, hallucinations, mood disturbances, delusions, violent behavior, psychotic symptoms sometimes lasting for years after quitting meth
- Permanent damage to heart and brain
- Severe dental problems ("meth" mouth)

MDMA (ecstasy):
- Anxiety, panic, confusion
- Cardiac/liver toxicity
- Depression as drug wears off
- Dry mouth
- Hyperthermia
- Impaired memory and learning
- Increased heart rate and raised blood pressure
- Increased liver and kidney problems later in life

- Interference with body's fluid control mechanisms and salt balance, making it easy to overhydrate and cause the brain to swell
- Long-term brain changes such as depletion of serotonin leading to chronic depression, memory impairment, and personality changes
- Mild hallucinogenic effects
- Raised body temperature leading to dehydration
- Renal failure

Nicotine:

- Adverse pregnancy outcomes
- Cardiovascular disease
- Chronic bronchitis and emphysema
- Heart disease
- Increased risk of cancer in almost every organ and tissue of the body, especially cancer of the lung, throat, and stomach
- Lung disorders and disease
- Stroke

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