



# Alcohol Information and Management

Health Education  
& Wellness Office

Rice EMS

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This document available online:  
<http://www.ruf.rice.edu/~rems/education/>

## Alcohol Content

- Ethyl alcohol, or ethanol, is classified as a depressant drug.
- One beer or a shot contains approximately 1/2 oz. of pure alcohol.
- Drinks such as wine coolers and margaritas may contain up to 3/4 oz. of alcohol, depending on who mixes the drinks.

### ALCOHOL CONTENT CHART

Beverage	Alcohol Content	Serving Size	Amount of Alcohol in One Drink
Beer	5.0 %	12 oz	.60 oz
Light Beer	3.7 %	12 oz	.44 oz
Wine	12 %	5 oz	.60 oz
Wine Cooler	6 %	12 oz	.72 oz
Distilled Spirits	50%	1.25 oz	.63 oz

FORMULA: Alcohol Content X Serving Size = Amount of Alcohol in One Drink

## Alcohol and the Body

- Alcohol does not have to be broken down like food.
  - 5% enters the bloodstream through the lining of the mouth and throat.
  - 20% is absorbed into the bloodstream through the lining of the stomach.
  - The rest (75%) is absorbed in the small intestine.
- The liver can only metabolize 1/2 oz of alcohol per hour from the bloodstream.
- Factors that increase how quickly alcohol enters the bloodstream:
  - Drinker's mood (i.e. anger, fear, stress, nausea)
  - Fast rate of consumption (i.e. shots, chugging)
  - High concentration of alcohol in the beverage
  - Size of drinker
  - Carbonation with the alcohol (i.e. mixers, champagne)
  - Low tolerance to alcohol

# Blood Alcohol Concentration (BAC):

- BAC is the amount of alcohol present in a person's blood as compared to the total blood volume.

## PSYCHOLOGICAL AND PHYSICAL EFFECTS OF VARIOUS BLOOD ALCOHOL CONCENTRATION LEVELS

BAC	Psychological and Physical Effects
0.02%-0.03%	No overt effects, slight mood elevation
0.05%-0.06% (2 Drinks*)	Feeling of relaxation, warmth, slight decrease in reaction time and fine muscle coordination, reduced judgment capacity
<b>0.08%-0.09%</b>	Balance, speech, vision, hearing slightly impaired; feelings of euphoria, increased confidence; loss of motor coordination. <b>0.08% IS THE LEGAL LIMIT OF INTOXICATION IN TEXAS</b>
0.11%-0.12% (5 Drinks*)	Coordination and balance becoming difficult; distinct impairment of mental faculties, stumbling
0.14%-0.15%	Major impairment of mental and physical control; slurred speech, blurred vision, lack of motor skills, serious problems with balance
0.20%	Loss of motor control, must have assistance moving about; mental confusion
0.30% (10 Drinks*)	Severe intoxication; stuporous but conscious
0.40% (15 Drinks*)	Unconsciousness, threshold of coma
0.50%	Deep Coma
0.60%	Death from respiratory failure

\*Drinks that contain about .5oz. of pure alcohol, consumed in one hour.

## Effects of Drugs with Alcohol:

- Over-the-counter drugs and prescriptions can contain narcotics, barbiturates, tranquilizers, antihistamines, and other hypnotic-sedative drugs.
- The combination of alcohol and drugs can increase each other's effects on the central nervous system, possibly resulting in death.
- The route through which the drug is given affects the impact the drug has.
- The slower your metabolism, the more effect the drug can have because it is in your body longer.
- When you mix drugs and alcohol, they are forced to compete with each other, thus slowing down the metabolism.
- Of the 100 most frequently prescribed drugs, more than half contain at least one ingredient that reacts adversely with alcohol. Be sure to:
  - Read warnings on all drugs.
  - Talk to your doctor about prescriptions.
  - Talk to your pharmacist, especially about non-prescription drugs.

# How Do You Handle an Intoxicated Person?

## Do's

- **Do** talk in a non-judgmental voice to reassure them.
- **Do** find out what the person was drinking, how much, over what time period, and if the alcohol was consumed with any other drugs or medicines.
- **Do** explain what you intend to do, and speak in a clear, firm, reassuring manner.
- **Do** encourage the intoxicated person to lie down and sleep, making sure to have them lay on their side. This prevents accidental death by choking should they begin to vomit.
- **Do** periodically check that the person can be roused. A person's BAC can continue to rise after they stop drinking. **Be sure to check the person every 30 minutes for the first two hours and then every hour to make sure they respond and are breathing.**
- **Do** call for help if the person becomes uncontrollable or you sense an impending medical emergency. (University Police/EMS, 713-348-6000)

## Don'ts

- **Don't** attempt to constrain the person.
- **Don't** attempt to keep the person awake.
- **Don't** give the person any drugs to sober them up. (Aspirin may irritate the stomach.)
- **Don't** induce vomiting.
- **Don't** give the person a cold shower, walk them around, or throw water in their face.
- **Don't** assume that every intoxicated person will "sleep it off." Check their breathing and find out more about the circumstances.
- **Don't** leave them alone.
- **Don't** let an intoxicated person operate a car, motorcycle, or bike.

# Drug and Alcohol Poisoning

An overdose of alcohol can result in poisoning and should be treated at once. The following are considered life-threatening situations:

- Unconsciousness / Unable to arouse
- Difficulty Breathing / Not Breathing / Choking
- Increased, decreased, or irregular pulse (above 100 or below 60 beats per minute)
- Vomiting while semiconscious or unconscious
- Convulsions

Here are ways you can evaluate an intoxicated person:

- **Unconsciousness:** Check for consciousness by trying to awaken them by gently tapping them and calling their name, if you know it.
- **Choking:** Choking means that the airway is obstructed. A choking victim may exhibit any of these signs: grabbing the throat with the hand; gagging; weak, ineffective coughing; noisy breathing; high-pitched crowing sounds; pale or bluish skin, beginning with the face; convulsions and/or loss of consciousness due to lack of oxygen.
- **Breathing:** First, check to see if the person has an open airway. If not, open it using the head-tilt/chin-lift method. Then check to see if the person is breathing -- Look, Listen, and Feel for **5 seconds**. PS: If the victim is talking, they have an open airway and can breathe.
- **Pulse:** The two easiest places to check for a pulse are the radial pulse and the carotid pulse. Always use your middle and ring fingers to check a pulse. The radial pulse can be felt on the thumb side of the wrist. Check here first. If you can't find a radial pulse, the carotid pulse can be found by placing your middle and ring fingers on the Adam's apple and sliding them into the groove along the side of it.
- **Instinct:** Many times, your instinct and experience will be able to tell you if something just doesn't seem right. Don't hesitate to call EMS!

## **RICE UNIVERSITY POLICE/EMS: 713-348-6000 or ANY BLUE LIGHT PHONE**

When you call for help, you should tell the Police/EMS dispatcher the following:

- Where the emergency is (exact address or location)
- Telephone number you are calling from
- What has happened (Be as specific as possible)
- How many persons need help
- Condition of the victim(s)
- What is being done for the victim.

**You hang up last.** Let them hang up first.

# Interventions – Before EMS Arrives

- **FIRST: CALL FOR HELP!**
- **CHOKING:**
  - **Conscious victim:**
    1. Ask the victim if they are choking. If the victim can't answer then the obstruction is **life threatening**.
    2. Tell the victim you are going to help and ask for permission to proceed.
    3. Stand behind the victim with your dominant foot in front to brace yourself. Wrap your arms around the victim's waist.
    4. Make a fist. Put the flat, thumb side of the fist in the middle of the victim's abdomen, just above the navel and well below the lower tip of the ribs. Grasp your fist with your other hand.
    5. Keeping your elbows out, press your fist inward with a quick, upward thrust into the victim's abdomen.
    6. Continue until the obstruction is cleared or the victim loses consciousness.
  - **Unconscious victim:**
    1. Lower the person to the ground—place the victim on his/her side. Remember to call for help. If you are trained to do so continue with the Heimlich for unconscious persons.
- **ARTIFICIAL BREATHING:** If the victim is not breathing and you are trained to do so, begin artificial breathing.
  1. Tilt the head back (head-tilt/chin-lift), pinch the nose, and give one full, slow breath every 5 seconds.
  2. Watch to make sure the breaths go in. If not, reposition the airway and try again.
  3. Every minute (about 12 breaths) check to make sure the victim has a pulse.
  4. Continue until you can't go on any longer or until help arrives.
- **CPR:** If your victim has no pulse, begin CPR if you are trained to do so. Rice EMS offers CPR instruction regularly on campus for a nominal fee. Send email to [rem@rice.edu](mailto:rem@rice.edu) if you are interested in enrolling.
- **KEEP THE VICTIM WARM:** A blanket prevents body heat loss.
- **STAY WITH THE VICTIM** until help arrives.

## Resources

Rice Counseling Center (24 hour)	713.348.4867
Health Education	713.348.5194
Health Services	713.348.4966
University Police/EMS	713.348.6000
CAPP	reps in college
Health Reps/SOAR	713.348.5194
Asst Dean of Judicial Programs	713.348.4786
Alcoholics Anonymous	713.686.6300
Houston Council on Alcoholism & Drugs	713.942.4100
Narcotics Anonymous	713.661.4200

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# Heat Related Emergencies



## The first step is always prevention:

- Wear loose-fitting, light-weight clothing in hot weather
- Rest frequently
- Stay inside if possible
- Drink lots of fluids (avoid caffeine or alcohol)
- Listen to the news and weather for heat advisories

## Rice EMS

**713-348-6000**

or any blue-light phone  
24 hours a day

### Heat Stroke

Heat stroke is the most serious type of heat-related emergency. It is LIFE-THREATENING and requires IMMEDIATE and AGGRESSIVE treatment!

*Definition:* Heat stroke occurs when the body's heat regulating mechanisms fail. Body temperature rises so high that brain damage and death may result unless the body is cooled quickly.

#### *Signs and Symptoms:*

- Skin is HOT, RED, DRY.
- Pupils are constricted (very small)
- Body temperature is VERY HIGH (sometimes as high as 105°)

#### *First Aid:*

1. Call EMS immediately.
2. Move the victim to a cool location out of the heat.
3. Place victim in a tub of cool water, wrap in wet sheets, and place in an air-conditioned room.
4. DO NOT give ANYTHING by mouth!

### Heat Exhaustion

Heat exhaustion is less dangerous than heat stroke, but it can progress to heat stroke if left untreated.

*Definition:* Heat exhaustion is caused by fluid loss which, in turn, causes blood flow to decrease to vital organs, resulting in a form of shock. As a result of dehydration, victims often complain of flu-like symptoms hours after exposure.

#### *Signs and Symptoms:*

- Skin is COOL, PALE, MOIST
- Pupils are dilated (very large)
- Body temperature near normal
- Heavy sweating
- Headache
- Nausea, dizziness, or vomiting

#### *First Aid:*

1. Call EMS immediately.
2. Move the victim to a cool location out of the heat.
3. Lay victim on back and raise feet 10-12 inches
4. Remove/loosen clothing
5. Cool victim by fanning or applying cold packs, wet sheets or towels
6. If conscious give 1/2 glass water every 15 minutes.

### Heat Cramps

Occurs especially during outdoor games.

*Definition:* muscular pain and spasms due to heavy exertion. Generally thought to be caused by loss of water and salt through sweating.

#### *Signs and Symptoms:*

- Abdominal cramps or muscle spasms
- Leg cramps or muscle spasms

#### *First Aid:*

1. Move victim to a cool location.
2. If conscious, give ½ glass of water every 15 minutes.

#### DO NOT:

- Underestimate the seriousness of heat related emergencies, especially for children or the elderly
- Give medications to reduce fever (i.e. Aspirin); they may cause further harm
- Give victims salt tablets
- Overlook possible complications from other medical problems
- Give victims liquids containing alcohol or caffeine—they interfere with the body's ability to control temperature
- Give the victim ANYTHING by mouth of heat stroke is suspected.