

What do you need to know to reduce your risk?

- Understand what high risk drinking is
- Understand Blood Alcohol Content (BAC) Levels and some key points about BAC
- Understand what a standard drink size is vs. a typical party drink size
- Know the signs and symptoms of alcohol poisoning
- Know the actions to take if someone appears to be suffering from alcohol poisoning

High Risk Drinking

- Participating in drinking games
- Celebratory drinking (21st birthday, “the big game”, end of semester, graduation, spring break...)
- Drinking to get drunk
- Pre-partying/pre-loading
- Doing shots
- Chugging
- Using a funnel, hose, trough or punch bowl
- Mixing alcohol with any drugs (legal or illegal)
- Not knowing what you are drinking or how much you are drinking
- Combining alcohol with energy drinks

These are examples, certainly not all the ways you can drink in a high risk fashion. Any drinking that is in high amounts or short periods of time, creating a situation where the body can't handle the alcohol, is high risk drinking.

How the Body Processes Alcohol

When a person drinks alcohol, it can enter the bloodstream immediately. The molecular structure of alcohol is small, so the alcohol can be absorbed or transferred into the blood through the walls of the stomach and the small intestine. The stomach actually has a relatively slow absorption rate; it is the small intestine that absorbs most of the alcohol. Once in the bloodstream, alcohol moves through the body and comes into contact with virtually every organ. However, some of the highest concentrations, and certainly the highest impact, is caused by the alcohol when it reaches the brain.

The body is quite efficient when it comes to dealing with alcohol. The liver is designed to metabolize the majority of alcohol as we drink it at a normal rate. Enzymes break down the alcohol into harmless products and then it is excreted. However, the liver can only handle so

much alcohol at a time. The liver can handle alcohol at a rate of no more than one measure drink per hour. If a person drinks at a faster rate than one drink per hour, the alcohol simply stays in the bloodstream, waiting its turn to be metabolized. Since there is more alcohol in the blood than can be metabolized, the result is increasing levels of intoxication.

Blood Alcohol Content (BAC) Levels

Your BAC level measures the amount of alcohol in your blood, therefore traveling through your body to every organ, including your brain. In its simplest form, calculating a person's BAC level is based on how much alcohol went into what kind of body over a period of how much time.

.01 - .07 You feel mildly relaxed, a little lightheaded. Your inhibitions are loosened and you feel less cautious. Judgment abilities are slightly impaired. No real feeling of depressant effects of alcohol seen yet. Your behavior may become exaggerated and your emotions intensified.

.08-.13 Your motor skills start to become impaired and your sense of balance may be compromised. Your emotions become a bit exaggerated – perhaps loud, perhaps aggressive. It is dangerous (and illegal) for you to drive. Your judgment is impaired and you may have difficulty evaluating sexual situations. You believe you are functioning better than you actually are.

.14 - .19 The “good feelings” of euphoria begin to give way to some negative feelings such as anxiety and restlessness. You may begin feeling tired because the depressant qualities of alcohol begin to take effect. (If you are a man, you will have difficulty achieving or maintaining an erection.) You will have trouble walking or standing and are at a greater risk of hurting yourself physically. You may get nauseous.

.20 - .24 You feel confused and disoriented. At this point you may experience nausea. You have trouble standing. You may not realize that you hurt yourself because you might not feel pain. Blackouts become likely at this point.

.25 - .29 Almost all aspects of your brain are severely impaired. You may have passed out by this point. Vomiting is likely and the chance of asphyxiation on your own vomit is greatly increased. If you haven't passed out, the risk of personal injury is high because you have little to no physical control. You are emotionally numb.

.30 - .34 If you are still conscious, you are in a stupor. You likely have no comprehension of where you are or what you are doing. There have been numerous cases of alcohol poisoning and death in this range of BAC. You are in need of medical help.

.35 & up You have reached the level of surgical anesthesia. Coma is possible. The lungs and heart rate are slowing to the point of stopping. You need immediate medical help.

Your BAC is determined primarily by how much alcohol you drank, the rate of consumption, your weight and your gender. Other influences include: other drugs in system, hydration level, food in the stomach, type of drink.

Some Key Points about BAC:

- The weight of a person greatly affects the distribution of alcohol throughout the body. The smaller the person, the less room for alcohol to distribute itself.
- Generally, men can handle more alcohol than women. This is because women are usually smaller, have more body fat and have lower total body water content than men. Also, a woman's ability to metabolize alcohol can be affected by her menstrual cycle due to higher levels of estrogen. All of this contributes to higher concentrations of alcohol in a woman's system even if she is drinking the same amount as a man.
- Alcohol is a depressant. Any illegal, prescription or over the counter drug is likely to react with alcohol and may increase intoxication or negative effects.
- Your stomach lining absorbs alcohol directly into your blood stream. Food slows down that absorption of alcohol.
- Diluting alcohol with water or juices reduces the volume of alcohol in your bloodstream. Drinking straight alcohol or alcohol mixed with carbonated beverages speeds up absorption.
- If a person drinks faster than one drink per hour, the alcohol simply stays in the body, waiting its turn to be metabolized. The result is increasing levels of intoxication.
- A person's BAC can continue to rise even while he or she is passed out. Even after a person stops drinking, alcohol in the stomach and intestine continues to enter the bloodstream and circulate throughout the body.
- Rapid binge drinking is especially dangerous because the victim can ingest a fatal dose before becoming unconscious or exhibiting many of the other signs of alcohol poisoning.
- Combining alcohol with energy drinks may give people the "sensation" of reduced alcohol effects but does not alter BAC (may not feel as drunk as you really are).
- If you choose to drink and want a pleasurable and less risky experience, you need to drink less, drink slowly, and keep your BAC under a .06.
- Only time can lower your BAC. Coffee, cold showers and runs around the block will just leave you alert, wet, and out of breath but still drunk.
- Tolerance, a term meaning that after continued drinking, increasing amounts of alcohol are necessary to produce the same effect, does not have an effect on the actual BAC.

Standard Drink Sizes

(from the National Institutes of Health)

Beer

12 oz. (malt liquor – 8.5 oz.)



Wine

5 oz.



Hard Liquor

1.5 oz.



Mixed Drink

1.5 oz. of hard liquor



Typical Party Sizes

Keg Cup (black line shows  1 standard drink of beer)

3 full keg cups of beer is about 4 standard drinks

6 full keg cups of beer is about 8 standard drinks

9 full keg cups of beer is about 12 standard drinks

Key cup filled with wine is about 4 standard drinks

Keg cup filled with one mixed drink can be more than one or two standard drinks depending on how many shots are put into it.

A standard 750 mL bottle of wine has 5 standard drinks.

A fifth of 80-proof “hard liquor” has approximately 17 standard drinks.

Strategies to Prevent Alcohol Poisoning

- Drink no more than one drink per hour.
- Eat a full meal shortly before you start drinking.
- Drink non-alcoholic drinks between alcoholic drinks to slow the rate of consumption.

- Do not mix alcohol with other drugs, legal or illegal.
- Do not let others pressure you to drink.
- Know your limits and stick to them.
- Leave any drinking situation that is out of control before you become involved.

Signs and Symptoms of Alcohol Poisoning

- Person is known to have consumed large quantities of alcohol
- Person is unconscious and cannot be awakened
- Person has cold, clammy, unusually pale or bluish skin
- Person is breathing slowly or irregularly, less than 8 times per minute or 10 seconds or more between breaths
- Person vomits while passed out and does not wake up during or after.

If one or more of these are present, you need to take action!!!

Taking Action

There are steps that you can take if you encounter someone who could be suffering from acute alcohol poisoning. It is dangerous to assume a person will be fine by “just sleeping it off.”

- **Try to wake the person.** First, try to find out if the person is at all attentive. Are they unconscious? Can they be woken up? Try and call their name. Pinch their skin – they should have some reaction. Remember, alcohol is a depressant and it will numb the nerves so by pinching the skin you can gauge how far along in the “overdose” process they are.
- **Turn the person on his/her side and do not leave the person alone.** You turn the person on his/her side so that if they sick and vomit, the airways will not be blocked and they will not choke. Stay with them. Only leave them alone if you have to go to a phone or get someone to help you. Monitor the breathing. Make sure they do not roll over on their back.
- **Check skin color or temperature.** What is their skin color and temperature? Is enough blood getting to the skin? A sign that you should get help is if a person has pale or bluish skin, or the skin is cold or clammy. This person is not getting enough oxygen.
- **Check the person’s breathing.** How is the person breathing? If a person is breathing irregularly with a few breaths and then nothing for awhile, this is a sign that medical attention is necessary. If the person’s breathing is too slow or too shallow – less than 8 breaths a minute - or more than 10 seconds in between breaths – this is another sign you should get help.
- **There are no absolutes.** Everyone is different. These are just some of the potential signs of acute alcohol poisoning. A person may have one or all. For instance, there is no

guarantee that if a person is breathing 9 times a minute, they will be fine, or if they are breathing 7 times a minute they will die. If you cannot wake the person up at all, it is a serious situation. If you are at all concerned, **get help!!!!** Call 911, CSB Security at 5000 or SJU Life Safety at 2144.