

BINGE DRINKING:

The Facts

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Special thanks to

Yale New Haven Hospital

and

the University of Connecticut HEART program

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INTRODUCTION

Today, more than 4.4 million teens under the age of 21 are classified as binge drinkers. What is binge drinking? It is drinking so much that you do things you regret. So much that you vomit. So much that you pass out. So much that you might even die. Who binge drinks? Students in high school and college, as well as some adults. Binge drinkers are often underage drinkers who consider it fun to drink excessively. They may be high school students partying after a big sports victory, college students indulging in a beer-chugging contest, or even middle school students who drink on a dare and have no idea how much they've been drinking. Unfortunately, few of these drinkers are aware that their behavior is more than just illegal or irresponsible—it can actually jeopardize their lives.

Throughout the country, dozens of college and high school students are injured or killed each month as a result of binge drinking. Each year, five times as many teens die from alcohol overdose than from any other drug, legal or illegal. More than 10,000 young people between 16 and 24 die from alcohol-related traffic crashes each year. In addition, studies suggest that students who binge drink are twice as likely to die from accidental injuries as non-bingers. Binge drinkers are more likely to be involved in acquaintance rape. They are more likely to get into a car with a drunk driver.

These facts all lead to one conclusion: that young people who drink alcohol are putting their futures—and in some cases, their lives—in peril. Why do so many young people take such a risk?

There are many answers. Being young is associated with having fun, pushing the limit, and doing foolish, and even dangerous, things as a rite of passage. Historically, this rite has always included alcohol. Binge drinking—defined for males as consuming more than five drinks in one session, and for females as consuming more than four drinks in one session—has been depicted in movies, on television and even in liquor ads as a fun and ultimately harmless activity. These media messages give the appearance that the worst thing that can happen to a binge drinker is a hangover. Sadly, appearances can be deceiving.

Beyond the social reasons for young people's indulgence in binge drinking, there is also the simple fact that teenagers often don't know how dangerous binge drinking can be. They simply don't realize that when alcohol is consumed quickly or in large doses, it can slow or stop the body's involuntary processes such as breathing, the heartbeat, and the gag reflex which prevents choking. In a nutshell, they don't realize that alcohol can kill.

INTRODUCTION (CONTINUED)

Although the number of underage drinkers may appear staggering, the binge drinking phenomenon can be prevented through education. By viewing the video *Binge Drinking: The Facts* and working on the activities in this Teacher's Resource Book, your students will understand that there are ways to have fun that do not involve alcohol. They will also learn the importance of being responsible for their friends and acquaintances if they find themselves in a situation where alcohol is being abused. They will be able to identify the signs of alcohol poisoning and they will discover what to do if their friends overdose on alcohol.

LEARNING OBJECTIVES

After viewing the videotape *Binge Drinking: The Facts* and participating in class activities and discussions, your students should be able to:

- understand that alcohol is a poison and, like all poisons, it can kill
- identify the physiological and psychological effects of alcohol
- know the definition of binge drinking and realize why it is dangerous
- understand the serious health consequences of binge drinking, including alcohol poisoning, accidents, driving impairment, and acquaintance rape
- know how much alcohol causes alcohol poisoning for individuals of different body weights
- know the warning signs of alcohol poisoning
- know what to do to help someone who has been drinking excessively
- recognize the dangers of mixing alcohol and sex
- accept that drinking is illegal for all those under the age of 21
- understand that, after the age of 21, people who drink alcohol should be responsible about their drinking
- appreciate the importance of staying in control
- understand that alcohol is not necessary in order to have fun with friends
- accept the need to be responsible for their actions

PROGRAM SUMMARY

The video opens with the harrowing scene of a young woman being wheeled into an emergency room. Viewers learn that she is being hospitalized because she has consumed too much alcohol. Dr. Brewer, an emergency room physician, informs us that the previous night he tended to nine or ten other teens who were hospitalized because of alcohol. The ER doctors learn that the young woman on the stretcher is a college student named Katie. Quickly, the scene changes: beer, wine, and liquor are flowing, young people are drinking alcohol. A group of young people share their own stories about drinking excessively. Shannon and Tony both passed out. Melissa vomited. “I just got ahead of myself,” she says. Michael blacked out, fell down a flight of stairs, and cracked his head open.

Back at the emergency room, the doctors discover that Katie has drunk enough liquor to cause alcohol poisoning. If the people around her had not called for medical help, she might have died. A series of headlines and photographs tell of the tragic deaths of Scott Kreuger, Leslie Balz and Daniel Kinback, all of whom died after binge drinking. What makes these binge drinking deaths especially tragic is that they were avoidable—if the participants had known the facts about binge drinking. Other headlines make it clear that the problem of binge drinking is both severe and widespread.

The scene changes again. We now see people drinking at a party. They look like they are having fun, but appearances don't tell the whole story. The video explains that, after the initial sensory stimulation that comes from alcohol, the body starts to feel alcohol's depressing effects. A drinker's breathing, heart rate, reaction time, and mood are all depressed by alcohol. Viewers learn that alcohol is absorbed directly into the bloodstream. The liver goes to work filtering the alcohol out of the bloodstream and ridding it from the system. The problem is that the liver can only process half an ounce of alcohol in a single hour. A diagram of the human body helps to illustrate how alcohol that is not yet processed by the liver can build up in the bloodstream. A person's blood alcohol concentration (BAC) is determined by how much alcohol is consumed. BAC is also affected by weight, gender, state of mind, medication, and the amount of food consumed. A series of different BAC levels are explained. Dr. Brewer tells us that at 0.04 percent BAC—the level of a 180-pound male who has consumed two beers—driving would be impaired. “Going to 0.04 percent doubles your risk of being in a fatal accident,” he says. “Going to 0.08 percent quadruples it.” We learn that a 0.10 percent BAC—which is considered legally drunk in all states—is achieved when a 180-pound man consumes five drinks in an hour, or a 120-pound woman consumes four drinks in an hour. For many states, a 0.08 percent BAC level is considered legally impaired.

PROGRAM SUMMARY (CONTINUED)

We return to Michael, Melissa, Shannon, and Jeff. They explain what happens to them when they drink excessively. Michael gets in fights. Melissa either loves everybody or hates everybody. Shannon starts to repeat things. The narration highlights what the teens' comments have made apparent: "There is something else [that] alcohol can impair—your common sense." Dr. Brewer agrees. He points out that most people who get into a car with a drunk driver are also drunk themselves. Sober people would have the common sense to find another ride.

The video cuts back to Katie in the emergency room. The narration explains that Katie's BAC was more than 0.20 percent. Her brain was barely functioning. She was vomiting violently. She was in danger of acute alcohol poisoning, defined as "a rapid, severe, intense poisoning of her body that occurs when the liver can't process and eliminate the alcohol fast enough." Dr. Janice Wilbur, coordinator of the University of Connecticut Substance Abuse Program, uses the analogy of a sink to explain BAC to viewers. When you turn the tap on low, the water runs into the sink and runs out the drain. But when the water is turned on high, it can't drain out fast enough and builds up in the sink basin. Alcohol in the bloodstream works the same way: if you drink too much alcohol too quickly, the liver can't process the alcohol and it builds up.

Chris Hardin learned his lesson through personal experience. He once drank such a tremendous amount of vodka in 20 minutes that he suffered acute alcohol intoxication and was rushed to the hospital. His doctors were alarmed: if his BAC had been any higher, he would have been flown to another hospital to have his liver cleaned out. Luckily for Chris, his BAC stayed level. Still, it was the worst experience of his life.

What is binge drinking? The video narration states, "Binge drinking is an irrational killer." Michael puts it even more succinctly: "Getting stupid, that's what it is." Michael also makes the point that not all young people binge drink, despite what some may assume. Dr. Wilbur describes a survey that the University of Connecticut conducts regularly, which has concluded that people tend to think that more young people are drinking alcohol than actually are. Dr. Brewer concurs: regular binge drinking is not the norm.

Nevertheless, for those who binge drink, there are many dangers. Binge drinking can lead to problems with grades, with family, and with addiction. Dr. Brewer explains that those who binge drink in their teens or early twenties may become alcoholics in later life. Even if they don't become alcoholics, those who drink heavily on a regular basis are exposing themselves to other risks. Prolonged alcohol use can have long-

PROGRAM SUMMARY (CONTINUED)

term effects on the brain, such as a loss of memory and coordination. There are also long-term effects on the heart, such as a weakened heart muscle, which results in an inability to walk, eat, or even get dressed without fighting for breath. The liver is also damaged by prolonged alcohol use. Liver failure can cause death.

As dangerous as alcohol is, many kids are still drawn to it. Why? Peer pressure and advertising are two answers. Dr. Brewer points out that much alcohol is consumed by minors. The alcohol companies know this but don't care. Many marketing efforts by alcohol companies often depict alcohol as part of a healthy, youthful lifestyle, and link alcohol with sports. Another reason why some adolescents binge drink is the popularity of so-called drinking games. Dr. Wilbur and Dr. Brewer agree that these games are not only dangerous, they are a sad waste of young lives. According to Dr. Brewer, too many young people are wasting their time by binge drinking when they could be pursuing more worthwhile activities. Dr. Wilbur observes, "I think that they confuse having fun with being happy. When you do that, you have to have a lot of fun to compensate for not being happy." The young speakers admit that they sometimes drank not so much because they wanted to, but because they felt like they had to. Luckily for this group, they have realized that not everyone drinks, and that they don't need to drink either.

Even teens who don't abuse alcohol may find themselves in the presence of others who do. For that reason, it is important to know what to do in the event of an alcohol overdose. Viewers see an on-screen list of the signs of alcohol poisoning. This list makes it clear that if you are taking care of someone who shows signs of alcohol poisoning, you should follow these important steps: (1) Call for medical attention; (2) Place the person on his or her side; (3) Monitor the person's breathing; (4) Stay with the person; and (5) Do not let the person sleep it off. The video urges viewers to remember that following these steps could be a matter of life and death. As the video draws to a close, viewers return to Katie in the emergency room. Dr. Brewer reminds us of the utmost importance of seeking medical assistance. We find out that Katie survived her ordeal because she received medical attention in time. Chris remembers how scary it was to be in the hospital. He realizes how close he came to dying. The narration ends with these words: "Don't become another alcohol poisoning statistic."

STUDENT WORKSHEETS

RESPECT

In the space below, list ten qualities that you respect in yourself and in other people:

- | | |
|----------|-----------|
| 1. _____ | 6. _____ |
| 2. _____ | 7. _____ |
| 3. _____ | 8. _____ |
| 4. _____ | 9. _____ |
| 5. _____ | 10. _____ |

Now think of a time when someone you know got drunk. (This may be yourself, a friend, or a relative.) Do not name the person. From your list of qualities above, circle all those that applied to the person who was under the influence of a mood-altering substance.

Looking at your answers above, what can you say about people who get drunk?

What is it about getting drunk that young people find so cool? Be specific.

When you think about adults who drink alcohol, do you see a difference between drinking responsibly and getting drunk? Explain.

RESPONSIBILITY

Responsibility takes many forms. You are being responsible when you do all the homework that is assigned to you. You are also being responsible when you return a wallet that a stranger has dropped—even though nobody tells you to do it. Similarly, if someone you know has been drinking heavily, don't let that person drive, get in a car with a drunk driver, or get involved in an unwanted or risky sexual situation.

Binge drinking can create situations where another person's life might become your responsibility. It's important to explore your definition of responsibility, and to understand the role that personal responsibility plays in your own daily life.

In the space below, describe a situation in which you acted responsibly toward another person.

Now use your imagination. What would have happened if you hadn't been responsible?

Now write about a time that another person (friend, relative, stranger) acted responsibly toward you.

What if that person hadn't acted responsibly?

CONTROL

Think about your proudest, most impressive moments. Chances are you were in total control of your actions. Instead, if you binge drink, the chances are good that you will lose all control. You might end up telling an embarrassing story to someone that you want to impress, or you might throw up in front of a potential date.

For this exercise, read the following descriptions. Use the space below each scenario to write a new version of the scene.

Scenario 1

You are going to Bobbie's house to watch television. You have had a crush on Bobbie for a long time, but so far you are only friends. It's possible that your relationship may take a new turn tonight. Describe what might happen if you and/or Bobbie start binge drinking instead of watching television as you had planned.

Scenario 2

Tanya is going to visit her older sister Nikki at college this weekend. Nikki wants to introduce Tanya to all her friends. Tanya is excited, but she is also worried that she might seem like a little kid in front of all these college students. Describe what might happen if Nikki brings Tanya to a fraternity party where Tanya starts binge drinking.

Scenario 3

Kingston has a big exam coming up on Monday morning. She plans to study all day Sunday. But on Saturday night her friends call to invite her to hang out with them. They are hoping to relax before the big test, and they tell Kingston that they have invented a new "Brain Shake" vitamin drink that they want her to try. Describe what might happen if the "Brain Shake" turns out to be a fruit drink spiked with a lot of liquor, and if Kingston drinks six or seven glasses.

TAKE A GUESS

People who binge drink frequently put themselves at risk. They are more likely to engage in dangerous activities than are people who don't binge. For this exercise, try to guess the difference in likelihood between binge drinkers and non-binge drinkers. Then check your answers against the information provided in the *Look at the Facts* sheet on page 55.

1. Frequent bingers are...
a) **twice as likely** b) **3 times as likely** c) **4.5 times as likely**
...as non-bingers to have done something they later regretted.
2. Frequent bingers are...
a) **3.1 times as likely** b) **5.5 times as likely** c) **7.6 times as likely**
...as non-bingers to have missed a class because of drinking.
3. Frequent bingers are...
a) **4.2 times as likely** b) **6.3 times as likely** c) **7.7 times as likely**
...as non-bingers to have gotten behind in school work.
4. Frequent bingers are...
a) **3.1 times as likely** b) **4.4 times as likely** c) **5.3 times as likely**
...as non-bingers to have arguments with friends.
5. Frequent bingers are...
a) **2.9 times as likely** b) **3.7 times as likely** c) **5.1 times as likely**
...as non-bingers to have engaged in unplanned sexual activity.
6. Frequent bingers are...
a) **3.3 times as likely** b) **4.9 times as likely** c) **5.5 times as likely**
...as non-bingers to have had unprotected sex.
7. Frequent bingers are...
a) **4.2 times as likely** b) **7.9 times as likely** c) **11.5 times as likely**
...as non-bingers to have gotten hurt or injured.
8. Frequent bingers are...
a) **5.8 times as likely** b) **9.2 times as likely** c) **11 times as likely**
...as non-bingers to have damaged property.
9. Frequent bingers are...
a) **6.2 times as likely** b) **8.8 times as likely** c) **11 times as likely**
...as non-bingers to have gotten in trouble with campus police.

CLASS DEBATES

Choose one of the following debate topics. In the space below, prepare to debate the topic from both sides. You should be able to write at least one reason in favor of the subject of the question (“yes”), and one reason opposing the subject of the question (“no”).

Topic One:

Should alcohol be banned from fraternities?

YES

NO

Topic Two:

Should students be suspended if they are caught binge drinking?

YES

NO

Topic Three:

If a person leaves a drunk friend alone, and the friend ultimately dies from alcohol poisoning, should that person be held responsible?

YES

NO

HOW WOULD YOU FEEL?

By now you should know that binge drinking can kill. You can die from alcohol poisoning or by choking on your own vomit. Binge drinking can also cause many physical injuries and emotional disasters. How would you feel if your own excessive alcohol consumption had any of the following effects?

How would you feel if your binge drinking caused you to fight with your best friend? What if you said and did things while drunk that permanently damaged your friendship?

How would you feel if your binge drinking caused you to trip and fall down the stairs, spilling beer all over yourself in the process?

How would you feel if your binge drinking gave you such a massive hangover that you missed a whole day of classes? What if missing those classes meant lowering your grades from a B to a C?

How would you feel if your binge drinking caused you to forget that you left your roommate, who was also drinking excessively, passed out on a couch? How would you feel if the next morning, you found out that she had been rushed to the hospital? What if she died?

MEDIA ANALYSIS

How does the media portray people who use alcohol? For this project, you and your classmates should work in groups of two or three to examine this question. Your group should choose:

a movie or a television commercial

IF YOU CHOOSE A MOVIE...

Find a movie in which alcohol is consumed. You can choose a comedy or a drama, just make sure that there are enough scenes of characters drinking alcohol for you to comment on. Watch the movie, paying particular attention to scenes of alcohol use.

When you are finished, analyze the ways that alcohol use is portrayed in the film. Put together a presentation for your classmates.

Your presentation should answer the following questions:

- How is alcohol used in the movie? Which characters use it?
- How are those characters portrayed? Are they heroes or villains? Are they admirable, lovable, or despicable?
- How much alcohol is consumed? What are the effects of alcohol use? Does the use of alcohol have any repercussions in the movie's plot?
- What is the tone of the scenes of alcohol use? Are they funny? Ridiculous? Tragic? Is it a realistic portrayal of alcohol use?

IF YOU CHOOSE A TELEVISION COMMERCIAL...

Find a TV commercial (or series of commercials) for beer or wine. You probably won't find a television commercial for hard liquor, as the liquor industry has voluntarily refrained from advertising its products on TV. Watch the commercials.

When you are finished, analyze how the commercials try to sell their products. Put together a presentation for your classmates.

Your presentation should answer the following questions:

- What characters are featured in the commercial?
- What atmosphere is projected in the commercial?
- Who is the intended audience?
- Are the methods used to sell the product direct or indirect?
- Are the methods used to sell the product effective?
- What is implied about alcohol? What information is left out?

RESEARCH PROJECT

Ever before the Pilgrims landed on Plymouth Rock, alcohol was a part of American society. American attitudes toward alcohol, however, have been in constant flux, shifting through the centuries as people reacted to a variety of events and trends.

Choose one of the topics below to explore the intricate relationship between American society and American drinking.

The Temperance Movement

In the 19th century, various groups promoted abstinence from alcohol.

What were their objections to alcohol? How did they spread their message?

How powerful were they? How effective?

Prohibition

In 1920, the government passed legislation outlawing the distribution and sale of alcohol. What inspired the lawmakers to ban alcohol? What was the public response? What were the effects of Prohibition? When and why was it repealed?

Alcohol Addiction

Why is alcohol addictive? What physiological craving responses does alcohol trigger? Why are some people more susceptible to alcohol addiction than others? Is addiction hereditary?

The Alcoholics Anonymous Movement

In 1935, Dr. Robert Smith and Bill Wilson founded Alcoholics Anonymous, a group designed to help alcoholics overcome their addiction. Who were these men, and what inspired them to help alcoholics? What are the methods of Alcoholics Anonymous? How successful is it at helping alcoholics refrain from drinking? How has the group grown and changed over the years?

The Alcohol Lobby

The alcohol industries hire lobbyists to influence lawmakers to vote in ways that help the industries. How powerful are these lobbyists (collectively known as the Alcohol Lobby)? How are they organized? What are their methods? How effective are they at influencing legislation?

Alcohol and the Law: From 1950 to today

Over the past fifty years, there have been many changes in the laws regulating alcohol. What were some of the most significant changes? What precipitated the changes? How did they affect the consumption of alcohol?

Fraternalities and Alcohol

College fraternities are often perceived as places where alcohol runs freely. Do fraternities promote alcohol consumption? If not, how did fraternities get this reputation? Are any fraternities taking steps to change the public perception?

FOUR THINGS TO DO

Sometimes people binge drink because they can't think of what else to do for recreation, or because they assume that drinking excessively is how other people deal with their emotions. Not very creative, is it? With a little imagination, you could come up with plenty of better ways to spend your spare time and deal with your emotional highs and lows. For each of the examples listed below, come up with things you can do that don't involve drinking.

List four things you can do at a party.

1. _____
2. _____
3. _____
4. _____

List four things you can do on a date.

1. _____
2. _____
3. _____
4. _____

List four things you can do when you are alone and bored.

1. _____
2. _____
3. _____
4. _____

List four things you can do with friends on the weekend.

1. _____
2. _____
3. _____
4. _____

List four things you can do on a rainy day.

1. _____
2. _____
3. _____
4. _____

List four things you can do when you are in a rotten mood.

1. _____
2. _____
3. _____
4. _____

POSITIVE PEER PRESSURE

When we discuss peer pressure, we usually mean the power to convince or persuade our peers to do something negative. But sometimes peer pressure can also be used to influence others in a positive way. For each of the examples below, invent your own persuasive statement that might pressure someone into doing something positive.

1 Your local health club is offering a special price for new members: two for the price of one. You need to find someone else to join with you. Your friend Dennis often mentions how much he wishes he could get in shape, but you haven't seen him doing much about it. Persuade Dennis to join the health club with you.

2 Your friend Anita is very self-conscious about her acne. She complains that she feels unattractive, but she also says that her complexion is hopeless. To you it seems that she doesn't make any effort to improve her skin. She could buy medicated facial creams, maintain a balanced diet, or make an appointment with a dermatologist. Persuade Anita to make an effort to feel better about herself.

3 Among your friends, Matthew is the only one old enough to have a driver's license. He is driving you to a party tonight. You and Matthew always have a great time together, but tonight you are concerned that he will party too much and be unable to drive you home safely. Persuade Matthew not to drink alcohol tonight.

4 Your friend Eliana has been invited to become a "little sister" to a college fraternity. She says that it's an honor to be selected as part of the frat crowd. Among the festivities, there is one ceremony that really worries you: all the girls must drink a six-pack of beer in less than six minutes. The girl who is left standing at the end will be crowned the fraternity's sweetheart. You think it's a dangerous idea. Persuade Eliana not to go through with this binge drinking ceremony.

MIX AND MATCH

On the left hand side of the page you'll find several descriptions of men and women who drank various amounts of alcohol in an hour or less. Your job is to determine how each person's drinking affected his or her body and behavior. Match the description of the drinker on the left with the effects listed on the right.

In order to make the correct matches, you will need to refer to the *Degrees of Intoxication* fact sheet on page 43 and the *Know Your Limits* fact sheets for males and females on pages 45-47.

- | | |
|--|---|
| <p>_____ 1) At dinner Jody has two glasses of wine. She weighs 160 pounds.</p> | <p>a) The person suffers from mental confusion and a complete lack of motor control.</p> |
| <p>_____ 2) Bobby consumes six drinks at a party. He weighs 120 pounds.</p> | <p>b) There is a decreased sense of pain. The person's hearing and balance are altered.</p> |
| <p>_____ 3) Casey weighs 180 pounds. She had a shot of tequila with her brother on his birthday.</p> | <p>c) Motor skills and reaction time are both moderately affected.</p> |
| <p>_____ 4) Dorothea weighs 120 pounds. She consumes seven drinks at a fraternity party.</p> | <p>d) There is no apparent changes in behavior.</p> |
| <p>_____ 5) Gabriel, weighing 140 pounds, drinks three wine coolers at his sister's graduation.</p> | <p>e) Person suffers from severe mental confusion. Coma or death are possible.</p> |
| <p>_____ 6) Melissa is on the girl's field hockey team. She weighs 140 pounds. After a big game, she drank three beers.</p> | <p>f) Reaction time is slowed and movement becomes clumsy.</p> |
| <p>_____ 7) At her grandparents' house, Sara drank her first glass of champagne, and her second glass as well. Sara weighs 100 pounds.</p> | <p>g) The person suffers from blurred vision. Judgment is moderately affected.</p> |
| <p>_____ 8) Malcolm finds a case of beer in his parents' basement. He drinks six beers. He weighs 100 pounds.</p> | <p>h) This BAC is considered drunk driving in all states.</p> |
| <p>_____ 9) Vivian has three cocktails with her friends at a restaurant. She weighs 90 pounds.</p> | <p>i) Unconsciousness may occur and all abilities are severely impaired.</p> |

ANSWERS TO MIX AND MATCH

On the left hand side of the page you'll find several descriptions of men and women who drank various amounts of alcohol in an hour or less. Your job is to determine how each person's drinking affected his or her body and behavior. Match the description of the drinker on the left with the effects listed on the right.

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|--|---|

FACT SHEETS

BLOOD ALCOHOL CONCENTRATION (BAC)**What does “Blood Alcohol Concentration” mean?**

Blood alcohol concentration (BAC) is the amount of alcohol in the bloodstream. It is measured in percentages. For instance, having a BAC of 0.10 percent means that a person has one drop of alcohol per 1,000 drops of blood in the body.

Can you be intoxicated if you don’t feel drunk?

Absolutely. With each sip of an alcoholic beverage, your blood alcohol concentration (BAC) increases. BAC refers to your body’s ability to process the alcohol in your bloodstream—regardless of whether or not you feel the effects of alcohol.

Don’t people eventually learn how to “handle” their alcohol?

No two people will react to the same drink in exactly the same way. There are many factors that determine how alcohol will make you feel. These different factors can change from person to person—and even from day to day. For example:

Alcohol Content:

It’s not how many drinks you have, but how much alcohol each drink contains that determines your BAC.

Fatigue:

If you are tired, the effect of alcohol will be stronger than if you are well rested.

Emotional State of Mind:

Your mood can make a difference in how you react to alcohol—but it will not alter your BAC level.

Food:

The less food you have in your stomach, the more you will be affected by the alcohol you have consumed.

Body Weight and Type:

Generally, the less you weigh, the more you will be affected by alcohol. Still, even among people of the same weight, a well-muscled individual will be less affected than someone with a higher percentage of body fat.

Gender:

Females tend to have a greater amount of body fat and less of the enzyme alcohol dehydrogenase (which breaks down alcohol) than males. For this reason, they tend to absorb alcohol more quickly than male drinkers.

Drinking Time:

The more time you take to consume one drink, and the more time you allow to pass between drinks, the less effect the drinks will have because your body will have gained extra time to metabolize the alcohol.

Medication:

Medication (even over-the-counter remedies) may increase the effect of alcohol. It is important to follow your doctor’s advice. Many medications carry a warning against drinking alcohol.

DEGREES OF INTOXICATION

This chart shows how a drinker's behavior may change as BAC levels increase. Remember, these are general guidelines, but will vary from person to person.

BAC Level	Change in Drinker's Behavior
0.01% - 0.02%	The drinker feels relaxed, with a minor impairment of judgment and memory. Usually no apparent changes in behavior are noted.
0.03% - 0.04%	There is some loss of judgment and efficiency. Alertness is decreased. Small behavioral changes begin to be noticed.
0.05% - 0.06%	Inhibitions are lowered. Decision-making skills are affected. The drinker begins to have less control over actions and emotions.
0.07% - 0.08%	Walking, talking and balance are visible affected. The drinker's ability to react is notably slower. A BAC of 0.08 percent is considered legally intoxicated in some states.
0.09% - 0.10%	A BAC of 0.10 percent is considered legally intoxicated in most states. Vision, judgment, speech, and reaction times are all severely affected. Loss of balance is common.
0.11% - 0.15%	Judgment, memory, and self-control are further affected. Irresponsible behavior and exaggerated mood swings are evident. There is a decrease in the drinker's ability to sense pain.
0.16% - 0.19%	The drinker's behavior and speech are greatly affected. There is mental confusion, severe mood swings, and a lack of motor control. The drinker is unable to perform ordinary tasks.
0.20% - 0.30%	The drinker is in a confused or dazed state. Unconsciousness may occur. All physical and mental abilities are severely impaired. The central nervous system is acutely depressed.
Above 0.30%	The drinker is unconscious, with an irregular heart beat and breathing pattern. Coma or death are possible as a result of acute alcohol poisoning.

KNOW YOUR LIMITS—MALE

It is illegal to purchase or consume alcohol in the United States if you are under the age of 21. But for people who are 21 or over it is legal to drink, and it is possible to do so safely and responsibly. *If you are over 21*, it is important to know your own limits. Alcohol affects individuals differently. Your blood alcohol level may be affected by your age, gender, physical condition, amount of food consumed and any drugs or medication. In addition, different drinks may contain different amounts of alcohol, so it's important to know how much and the concentration of alcohol you consume. The chart below gives some general guidelines, but everyone processes alcohol differently. If you haven't eaten anything, if you are an inexperienced drinker, or if you have a relatively high percentage of body fat, you will process alcohol more quickly. That means that you will get drunker and sicker on fewer drinks than someone else.

BAC IMPAIRMENT CHART FOR MALES**APPROXIMATE BLOOD ALCOHOL CONCENTRATION (BAC) PERCENTAGES**

Number of Drinks	Body weight in pounds (lbs.)							
	100 lbs.	120 lbs.	140 lbs.	160 lbs.	180 lbs.	200 lbs.	220 lbs.	240 lbs.
0 drinks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 drink	0.04	0.03	0.03	0.02	0.02	0.02	0.02	0.02
2 drinks	0.08	0.06	0.05	0.05	0.04	0.04	0.03	0.03
3 drinks	0.11	0.09	0.08	0.07	0.06	0.06	0.05	0.05
4 drinks	0.15	0.12	0.11	0.09	0.08	0.08	0.07	0.06
5 drinks	0.19	0.16	0.13	0.12	0.11	0.09	0.09	0.08
6 drinks	0.23	0.19	0.16	0.14	0.13	0.11	0.10	0.09
7 drinks	0.26	0.22	0.19	0.16	0.15	0.13	0.12	0.11
8 drinks	0.30	0.25	0.21	0.19	0.17	0.15	0.14	0.13
9 drinks	0.34	0.28	0.24	0.21	0.19	0.17	0.15	0.14
10 drinks	0.38	0.31	0.27	0.23	0.21	0.19	0.17	0.16
11 drinks	0.43	0.34	0.30	0.28	0.23	0.21	0.19	0.18
12 drinks	0.47	0.38	0.34	0.31	0.26	0.24	0.22	0.21

Subtract 0.01 percent for each 40 minutes of drinking.

One drink = 1.25 oz. of 80 proof liquor, 12 oz. of beer, or 5 oz. of table wine.

- 0.00 percent** This is the **ONLY** safe driving limit
- 0.03 percent** Driving impairment begins
- 0.05 percent** Skills significantly affected
- 0.08 percent** Possible criminal penalties
- 0.10 percent** Legally intoxicated, reflexes are slowed
- 0.15 percent** Mental and physical abilities severely impaired
- 0.25 percent** Death or coma possible

Data supplied by the Pennsylvania Liquor Control Board, 1998.

KNOW YOUR LIMITS—FEMALE

It is illegal to purchase or consume alcohol in the United States if you are under the age of 21. But for people who are 21 or over it is legal to drink, and it is possible to do so safely and responsibly. *If you are over 21*, it is important to know your own limits. Alcohol affects individuals differently. Your blood alcohol level may be affected by your age, gender, physical condition, amount of food consumed and any drugs or medication. In addition, different drinks may contain different amounts of alcohol, so it's important to know how much and the concentration of alcohol you consume. The chart below gives some general guidelines, but everyone processes alcohol differently. If you haven't eaten anything, if you are an inexperienced drinker, or if you have a relatively high percentage of body fat, you will process alcohol more quickly. That means that you will get drunker and sicker on fewer drinks than someone else.

BAC IMPAIRMENT CHART FOR FEMALES**APPROXIMATE BLOOD ALCOHOL CONCENTRATION (BAC) PERCENTAGES**

Number of Drinks	Body weight in pounds (lbs.)							
	90 lbs.	100 lbs.	120 lbs.	140 lbs.	160 lbs.	180 lbs.	200 lbs.	220 lbs.
0 drinks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 drink	0.06	0.05	0.04	0.03	0.03	0.03	0.02	0.02
2 drinks	0.10	0.09	0.08	0.07	0.06	0.05	0.05	0.04
3 drinks	0.15	0.14	0.11	0.10	0.09	0.08	0.07	0.06
4 drinks	0.20	0.18	0.15	0.13	0.11	0.10	0.09	0.08
5 drinks	0.25	0.23	0.19	0.16	0.14	0.13	0.11	0.10
6 drinks	0.30	0.27	0.23	0.19	0.17	0.15	0.14	0.12
7 drinks	0.35	0.32	0.27	0.23	0.20	0.18	0.16	0.14
8 drinks	0.40	0.36	0.30	0.26	0.23	0.20	0.18	0.17
9 drinks	0.45	0.41	0.34	0.29	0.26	0.23	0.20	0.19
10 drinks	0.51	0.45	0.38	0.32	0.29	0.26	0.23	0.21
11 drinks	0.57	0.51	0.43	0.36	0.32	0.29	0.26	0.23
12 drinks	0.63	0.56	0.48	0.40	0.36	0.33	0.31	0.26

Subtract 0.01 percent for each 40 minutes of drinking.

One drink = 1.25 oz. of 80 proof liquor, 12 oz. of beer, or 5 oz. of table wine.

NOTE: A woman drinking an equal amount of alcohol in the same period of time as a man of an equivalent weight may have a higher blood alcohol level than that man.

- 0.00 percent** This is the ONLY safe driving limit
- 0.03 percent** Driving impairment begins
- 0.05 percent** Skills significantly affected
- 0.08 percent** Possible criminal penalties
- 0.10 percent** Legally intoxicated, reflexes are slowed
- 0.15 percent** Mental and physical abilities severely impaired
- 0.25 percent** Death or coma possible

Data supplied by the Pennsylvania Liquor Control Board, 1998.

BINGE DRINKING**Portrait of a Binge Drinker****Binge drinkers can be....**

- ...college students experimenting with their freedom away from parents
- ...high school students partying after a big sports victory or social event
- ...middle school students who drink on a dare and have no idea how much they've been drinking

According to experts, if...

you are a male who has five or more drinks in one session

or

you are a female who has four or more drinks in one session

...then you can be classified as a binge drinker.

Binge Drinking Statistics

- 4.4 million teens under 21 are classified as binge drinkers, including 1.7 million heavy drinkers.
- More than 10,000 young people between 16 and 24 die from alcohol-related traffic crashes each year.
- Alcohol-related highway crashes are the leading cause of death for adolescents and young adults in the United States today.
- Students who binge drink are twice as likely to die from accidental injuries as non-bingers.
- Alcohol is involved in nearly 60 percent of fires and burns, and in 68 percent of all drowning deaths.
- 90 percent of all vandalism on college campuses is alcohol related.
- Alcohol is involved in 48 percent of hypothermia and frostbite cases.
- Alcohol is involved in over 40 percent of accidental falls.
- 58 percent of female students and 75 percent of male students involved in date rape had been drinking or using drugs at the time.
- Alcohol contributes to 70 percent of violent behavior on campuses.
- 64 percent of all homicides are alcohol-related.
- **Each year, five times as many teens die from alcohol overdose than from any other drug, legal or illegal.**

ALCOHOL POISONING**What is alcohol poisoning?**

Alcohol poisoning is defined as “a severe elevation of the blood alcohol concentration which may lead to coma and death, often resulting from consumption of large amounts of alcohol.”

Rapid drinking on a bet or a dare is especially dangerous because the victim is drinking so quickly, he or she can get a fatal dose of alcohol into his or her stomach before falling unconscious. As long as the heart beats, alcohol in the stomach continues to enter the blood and circulate.

A blood alcohol concentration (BAC) of 0.30 percent and above is potentially lethal to anyone—minors, adults, or even heavy drinkers. The body cannot manage such excessive amounts of alcohol.

Stages of alcohol poisoning

- 1** Any quantity of alcohol can depress the central nervous system. When alcohol is consumed quickly or in large doses, it can slow or stop the body’s involuntary processes such as breathing, the heartbeat, and the gag reflex which prevents choking.
- 2** Even after the victim loses consciousness, alcohol continues to circulate through his or her system. The victim may suffer from lack of oxygen and/or hypothermia (low body temperature) which can lead to cardiac arrest and brain damage. Victim may choke on his or her own vomit and die.
- 3** Both breathing and pulse rate may grow slower, become irregular and finally stop. When respiration is significantly slowed, the person suffers from lack of oxygen. Coma and irreversible brain damage will occur. Death is possible if BAC rises to 0.30 percent or above.

IF YOUR FRIEND HAS HAD TOO MUCH TO DRINK

These are the common signs of alcohol poisoning. Watch out if someone you know...

- drinks excessively (four or five drinks in one sitting)
- drinks after using medications or other drugs
- does not respond to being talked to or shouted at
- does not respond to being pinched, prodded, or poked
- vomits while sleeping or passed out and doesn't wake up after vomiting
- cannot stand up or cannot remain standing unless aided by others
- won't wake up despite repeated attempts
- has slow breathing (fewer than six breaths per minute, or more than 10 seconds between breaths)
- has bluish or purplish skin, or skin that appears flushed
- has clammy skin, or skin that feels cool to the touch
- has an irregular pulse rate, or if the pulse becomes slower than 40 beats per minute
- has an irregular heart rhythm, with the heart beating unusually slowly or unusually quickly

Follow these steps if your friend shows signs of alcohol poisoning:

- **DON'T LEAVE YOUR FRIEND ALONE!**
- Call 911 for medical assistance immediately.
- Place your friend on his/her side to reduce risk of choking on vomit.
- If your friend's breathing becomes slower than six breaths per minute, perform mouth-to-mouth resuscitation immediately! This can save your friend's life.
- If you are no longer able to feel a pulse, or if your friend's pulse goes below 40 beats per minute, perform CPR until an emergency crew arrives. This, too, can save your friend's life.
- Wait with your friend until help arrives. Explain what you know about how much alcohol your friend has ingested.

Remember: *Too much alcohol can kill a person. By paying attention and acting responsibly, you can save your friend's life. Even if you're not sure that your friend needs medical assistance, it is best to call for help. Your friend's life might depend on it.*

LOOK AT THE FACTS

Answers to the *Take A Guess* student worksheet:

- | | | |
|------|------|------|
| 1. C | 2. C | 3. C |
| 4. C | 5. C | 6. C |
| 7. C | 8. C | 9. C |

Source:

“Binge Drinking on Campus” Report by Harvard School of Public Health, 1998
http://www.hsph.harvard.edu/organizations/cas/RWJ_S.htm

- People who binge drink frequently are ten times more likely to drive drunk than non-bingers are.
- People who binge drink frequently are sixteen times more likely to get in a car with a drunk driver than non-bingers are.
- Nearly three percent of the American college population will die from alcohol-related causes.
- 30 percent of college failure is alcohol related.
- 90 percent of all vandalism on college campuses is alcohol related.
- Alcohol is involved in two-thirds of college suicides, 90 percent of campus rapes, and 95 percent of violent crime on college campuses.
- Students who binge drink are twice as likely to die from injuries as non-bingers.
- Approximately 80 percent of all binge drinkers have had a hangover as a result of drinking.
- Approximately 50 percent of all binge drinkers have done something they later regretted as a result of drinking.
- Approximately 40 percent of all binge drinkers have blacked out as a result of drinking.
- Approximately 30 percent of all binge drinkers have had unplanned sex as a result of drinking.
- Approximately 15 percent of all binge drinkers have had unprotected sex as a result of drinking.
- Approximately 30 percent of all binge drinkers have argued with friends as a result of drinking.
- Approximately 45 percent of all binge drinkers have missed a class as a result of drinking.
- Approximately 30 percent of all binge drinkers have gotten behind in school as a result of drinking.

DATE RAPE AND BINGE DRINKING

Studies indicate that 75 percent of male students and 55 percent of female students involved in campus date rape had been drinking or using drugs before the rape occurred. Romance and alcohol can be a very dangerous combination in certain situations. Men who have been drinking excessively tend to become more aggressive. Women who have been drinking excessively have clouded judgment and will be less likely to think quickly and act to defuse an explosive situation than sober women. Friends should watch out for friends. Don't let a drunk friend get involved in a dangerous situation.

All women should be aware of the danger of date rape and should employ strategies to avoid it.

A woman should:

- Set sexual limits. Recognize that her body is her own. No one has the right to touch her body without her permission.
- Give clear messages about what she wants. If she doesn't want to engage in sexual activity, she should clearly say "no."
- Avoid being alone with a man. Stay around others.
- Trust her gut feelings about a situation. Gut feelings are often right on the money.
- If she finds herself in a difficult situation, leave as soon as possible.

And finally, if rape does occur, a woman should realize that it is NOT HER FAULT. She should seek help from a friend, family member, rape hotline, or counselor right away.

A man should:

- Not assume that he knows what his partner wants. He should check out all assumptions.
- Recognize that sexual excitement does not justify forced sex. Your actions are always within your control.
- Understand that "no" means no. It does not mean maybe and it does not mean yes. If you ignore a woman's refusal, you will be guilty of rape.
- Understand that if you have intercourse with a woman who is drunk and unable to give consent to sex, you are committing rape.
- Understand that even if you are drunk, you are responsible for your actions.

All men should be aware that having sex with a woman without her consent is rape and is against the law.

ALCOHOL'S EFFECTS ON THE BODY

When you drink alcohol, it is absorbed directly into your bloodstream and then into your body systems. Here is how alcohol can affect different parts of your body:

The Brain

Alcohol is a depressant. That means it slows down all the major functions of the central nervous system, causing slurred speech, mental confusion, blurry vision, and poor muscle control. If enough alcohol is consumed, it severely impairs the functioning of the respiratory system, and can arrest breathing. Prolonged alcohol use can cause confusion, memory loss, and brain damage.

The Liver

The liver works to cleanse the system of toxins. Alcohol is a toxin. Once alcohol enters the blood, the liver tries to rid the bloodstream of it. Prolonged alcohol use can cause hepatitis, cirrhosis of the liver, and liver cancer.

The Stomach

The stomach also tries to remove toxins from the body—usually by vomiting. If enough alcohol is consumed, it causes vomiting. Prolonged alcohol use can inflame the lining of the stomach and cause ulcers.

The Muscles

Prolonged alcohol use can cause weakness and loss of muscle tissue.

The Heart

Prolonged alcohol use can cause high blood pressure, an irregular pulse rate, and an enlarged heart.

The Pancreas

Prolonged alcohol use can upset digestion and cause severe pain, malnutrition, and early diabetes.

The Nervous System

Prolonged alcohol use can cause tingling and numbness in both the hands and feet.

The Reproductive System

Prolonged alcohol use can cause also impotence in males. In females, it can increase the risk of menstrual problems and it can severely damage the fetus of a pregnant woman.

RESOURCES

RESOURCES

Books:

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“Hard Lessons in Teen-Age Drinking” by Fred Musante, CT section, The New York Times, March 8, 1998.

Web Sites:

Alcohol Poisoning

<http://www.glness.com/ndhs.poison.html>

Alcohol Use and Binge Drinking

<http://www.tarleton.edu/~counseling/selfhelp/alcohol.htm>

Last Call for High Risk Bar Promotions that Target College Students

<http://www.health.org/pubs/lastcall>

Women and Alcohol

<http://www.uiuc.edu/departments/mckinley/health-info/drug-alc/women-al.html>

Binge Drinking on American College Campuses: A New Look at an Old Problem

http://www.hsph.harvard.edu/organizations/cas/RWJ_S.htm

Blood Alcohol Concentration

<http://www.lcb.state.pa.us/edu/bac-chrt.htm>