

Weiler Health Education Center

Binged to Death
Addiction Prevention
Grades 9-12

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Program Objectives

Program Description:

Explore the grim consequences of alcohol poisoning, alcohol abuse and binge drinking. Students learn to identify and respond to the signs of alcohol poisoning.

Standards:

PA 10.1.9abde; 10.2.9d; 10.1.12d

NJ 2.1.8d; 2.2.8b; 2.1.12d; 2.2.12d; 2.3.8bc; 2.3.12bc

Objectives:

Upon completion of the program, students will:

1. identify alcohol as a depressant drug.
2. define binge drinking.
3. explain BAC.
4. list three consequences of binge drinking.

Terms:

absorption - the passage of an ingested substance from the digestive tract into the blood

BAC – acronym for blood alcohol concentration

binge drinking – consumption of dangerously large amounts of alcohol in one session

blood alcohol concentration – the level of alcohol in a certain volume of blood

breathalyzer – a device that measures exhaled air for alcohol content

depressant – causing a drop in or lowering

ethanol – a type of alcohol

ingestion – to take a substance into the body

intervention – to come between the incidents of an event

metabolism – the process of changing ingested substances into other products

overdose – excessive dose

sober – not drunk



Crossword Puzzle

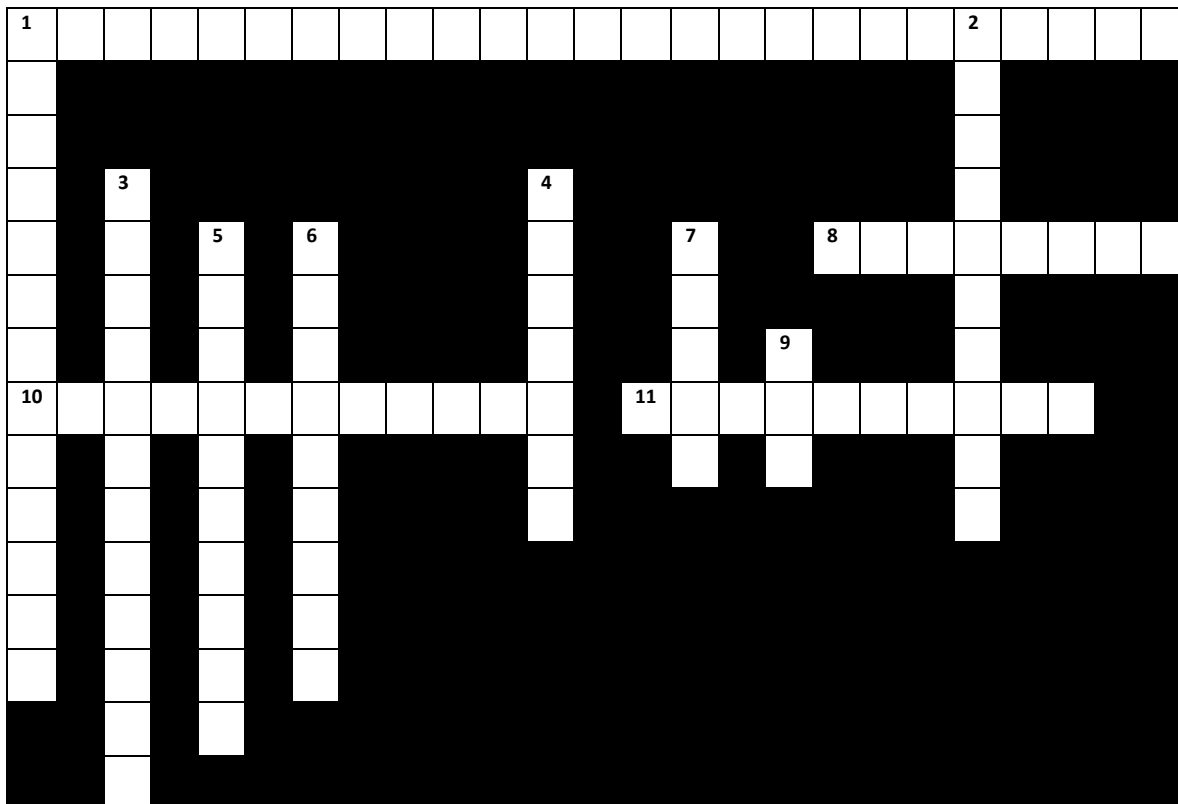
Directions: Use the clues below to complete the crossword puzzle.

ACROSS

1. the level of alcohol in a certain volume of blood
8. excessive dose
10. to come between the incidents of an event
11. the process of changing ingested substances into other products

DOWN

1. consumption of dangerously large amounts of alcohol in one session
2. the passage of an ingested substance from the digestive tract into the blood
3. a device that measures expired air for alcohol content
4. a type of alcohol
5. causing a drop in or lowering
6. to take a substance into the body
7. not drunk
9. acronym for blood alcohol concentration



Math Activity

Refer to the tables below to answer the questions regarding BAC (Blood Alcohol Concentration).

ALCOHOL IMPAIRMENT CHART FEMALES

APPROXIMATE BLOOD ALCOHOL PERCENTAGE										
Drinks *	BODY WEIGHT IN POUNDS									EFFECT ON PERSON
	90	100	120	140	160	180	200	220	240	
0	.00	.00	.00	.00	.00	.00	.00	.00	.00	ONLY SAFE DRIVING LIMIT
1	.05	.05	.04	.03	.03	.03	.02	.02	.02	IMPAIRMENT BEGINS.
2	.10	.09	.08	.07	.06	.05	.05	.04	.04	DRIVING SKILLS SIGNIFICANTLY AFFECTED.
3	.15	.14	.11	.11	.09	.08	.07	.06	.06	
4	.20	.18	.15	.13	.11	.10	.09	.08	.08	LEGALLY INTOXICATED. CRIMINAL PENALTIES IN ALL STATES **
5	.25	.23	.19	.16	.14	.13	.11	.10	.09	
6	.30	.27	.23	.19	.17	.15	.14	.12	.11	
7	.35	.32	.27	.23	.20	.18	.16	.14	.13	
8	.40	.36	.30	.26	.23	.20	.18	.17	.15	
9	.45	.41	.34	.29	.26	.23	.20	.19	.17	
10	.51	.45	.38	.32	.28	.25	.23	.21	.19	

Subtract .01% for each 40 minutes of drinking.

One drink is equal to 1¼ oz. of 80-proof liquor, 12 oz. of beer, or 4 oz. of table wine.

1. Refer to the table to gather this information. Write the answers on the lines.

Identify the approximate BAC for a 140 pound female who has had two drinks.

_____ After forty minutes passes, what will the BAC be? _____

2. Name the organ that is removing the alcohol from the blood. _____
3. What BAC is the only BAC that is safe to have while driving? _____



ALCOHOL IMPAIRMENT CHART MALES

APPROXIMATE BLOOD ALCOHOL PERCENTAGE									
Drinks *	BODY WEIGHT IN POUNDS								EFFECT ON PERSON
	100	120	140	160	180	200	220	240	
0	.00	.00	.00	.00	.00	.00	.00	.00	ONLY SAFE DRIVING LIMIT
1	.04	.03	.03	.02	.02	.02	.02	.02	IMPAIRMENT BEGINS.
2	.08	.06	.05	.05	.04	.04	.03	.03	
3	.11	.09	.08	.07	.06	.06	.05	.05	DRIVING SKILLS SIGNIFICANTLY AFFECTED.
4	.15	.12	.11	.09	.08	.08	.07	.06	
5	.19	.16	.13	.12	.11	.09	.09	.08	LEGALLY INTOXICATED. CRIMINAL PENALTIES IN <u>ALL</u> STATES **
6	.23	.19	.16	.14	.13	.11	.10	.09	
7	.26	.22	.19	.16	.15	.13	.12	.11	
8	.30	.25	.21	.19	.17	.15	.14	.13	
9	.34	.28	.24	.21	.19	.17	.15	.14	
10	.38	.31	.27	.23	.21	.19	.17	.16	

Subtract .01% for each 40 minutes of drinking.
One drink is equal to 1¼ oz. of 80-proof liquor, 12 oz. of beer, or 4 oz. of table wine

4. For a 180 pound male, how many drinks will result in a BAC of .08? _____
5. Driving impairment begins with which drink? _____
6. Which has more alcohol in the same amount, or volume; beer, wine or liquor?

Use the chart below to answer the following questions.

7. When an individual's BAC is just .02, how many times more likely are they to be killed in an auto accident while driving?



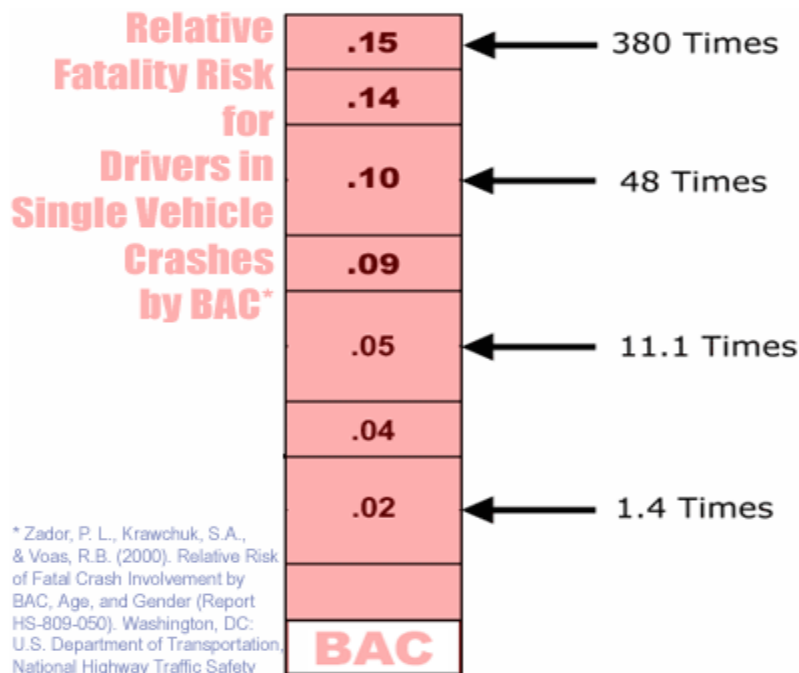
8. What does this risk increase to for an individual whose BAC is .05 while driving?

9. When BAC changes from .10 to .15, the change in alcohol concentration is not even twice as great, YET, the fatality risk while driving increases tremendously, much more than twice as much.

Write down the fatality risk for a BAC of .10 _____

and for a BAC of .15 _____

10. How many times greater is the risk when BAC changes from .10 to .15? _____



* Zador, P. L., Krawchuk, S.A., & Voas, R.B. (2000). Relative Risk of Fatal Crash Involvement by BAC, Age, and Gender (Report HS-809-050). Washington, DC: U.S. Department of Transportation, National Highway Traffic Safety Administration.

Source: National Highway Traffic Safety Administration (NHTSA)



Alcohol Public Service Announcement

Background:

PSA's are intended to modify public attitudes by raising awareness about specific issues. The most common topics of PSAs are concerning health and safety.

Materials: One piece of poster board per group of three students, adhesive (one bottle per group), computer and printing access (perhaps out of school assignment), markers, rulers and pencils (per group)

Procedure:

1. Divide the class into groups of three and have each group prepare a PSA in the form of a poster. The poster should contain a written message as well as a picture collage to illustrate the message that has been designed.
2. Have the students select a topic from the following list. Do not duplicate topics between groups.

The effect of alcohol on contracting an STI

The effect of alcohol on pregnancy

The connection between alcohol and violence

The effect of alcohol on the brain

The dangers of alcohol on everyday activities

3. In one class period, students should decide on the actual announcement or written message that will appear on the poster (concerning the selected topic) and discuss the types of pictures they will have to gather to create the collage.
4. Students should independently gather images in an appropriate amount of time (one week).
5. During a second class, students will assemble the poster – words and images, into a neat and appealing collage.
6. Then have each group present their poster to the class with each group member explaining parts of the poster – the message and the supporting images.





Crossword Puzzle Answer Key

ACROSS

1. blood alcohol concentration
8. overdose
10. intervention
11. metabolism

DOWN

1. binge drinking
2. absorption
3. breathalyzer
4. ethanol
5. depressing
6. ingest
7. sober
9. BAC

Math Activity Answer Key

1. .07, .06
2. liver
3. .00
4. 4
5. first
6. liquor
7. 1.4 times
8. 11.1 times
9. 48 times; 380 times
10. 7.91 or almost 8 times



Note to teacher- the following letter is intended for your students to take home as a follow-up for the days program. Please copy and distribute as you see fit in order to enable caregivers of students to reinforce the lesson of this program effectively.



Weller Health Education Center

Dear Caregiver,

Your child has participated in a program called “Binged to Death” that was presented by the Weller Health Education Center. This program talked about the effects of alcohol on the body, warning signs of alcohol overdose, binge-drinking, and what to do in an emergency overdose situation. Through activity, students discover how alcohol is metabolized and why drinking, in particular heavy drinking, causes substantial risk. With help from video and testimonials, students are hit with potential real life consequences including death, long term disability, legal ramifications and more. The Weller Health Education Center emphasizes the effects of alcohol and how decisions we make in the present can stay with us in the future.

Many kids and teens try alcohol during their high school and college years before its even legal for them to drink. But studies have found that most students do not drink habitually. Thus parents have a responsibility to communicate the risks. Safety experts say three in every ten Americans will be involved in an alcohol-related crash at some time in their lives. The Center for Disease Control states that alcohol misuse is now the leading risk factor for serious injury in the United States, and the third leading cause of preventable death. Annually, it accounts for more than 75,000 deaths. Situations have occurred that in order to protect students, it is OK for parents to serve them alcohol in a controlled environment. But the fact remains that if a parent serves alcohol to their children's friends, they are breaking the law and exposing themselves to enormous risk in terms of legal and financial liability.

Below you will find some suggestions to guide you in taking steps to improve your family’s health and safety. These activities can help to continue the message started today in our program. For additional resources you are welcome to utilize the parent, teacher and student resource links found on our website at www.wellercenter.org.

Sample Suggestions:

1. Encourage students to never ride in a vehicle where the driver has been drinking.
2. Carefully review school/sport/club alcohol policy with student to understand responsibility and consequences.
3. Remind them to leave any uncomfortable situation.
4. Make sure they have money for transportation or a phone number where you or another responsible adult can be reached where there will be no judgment at the time.
5. Educate yourself about binge drinking and communicate dangers to your students. For more information visit www.kidshealth.org.

Yours in good health,

Weller Health Education Center