Brief Alcohol Screening and Intervention for College Students (BASICS) Training



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Session 4:
Alcohol Consequences

Session Learning Objectives:

1. Explain how to elicit information about alcohol-related consequences.
2. Review psychoeducation related to avoiding specific alcohol-related consequences
3. Describe the biphasic effect of alcohol and the point of diminishing returns
4. Describe how tolerance is formed and reduced



Eliciting Information on Consequences

- *Going back to Session 3 of this training:*
- **When you ask about the *"not-so-good" or "less good" things about alcohol***, also discuss differences in experience of undesired consequences between **peak drinking** occasions and **lower drinking** occasions.
  - Tell me about what your drinking was like on the nights when you experienced [those things].
  - How was your drinking *the same or different* on nights when you *didn't* experience [those things]?
  - So, you've noticed that you experience [those things] following nights where your BAC got above [0.__], and on nights when your BAC was closer to [0.06], you had a good time and didn't experience [those things].



Alcohol-related Consequences

Addressed in the Feedback:

- Financial costs
- Weight gain
- Sex-related risks (STIs)
- Sexual assault
- Drunk Driving
  - *Impaired decision-making*
  - *Accidents*
  - *Legal problems*
- Blackouts
- Tolerance

***Not* Addressed in the Feedback:**

- Hangovers
- **Impaired sleep**
- Social impacts
- Academic impairment/failure
- Work-related problems
- **Drug interactions**
- Time spent intoxicated
- Impaired athletic performance

When **eliciting motivation**, only focus on those consequences that **the student wants to avoid or have happen less.**

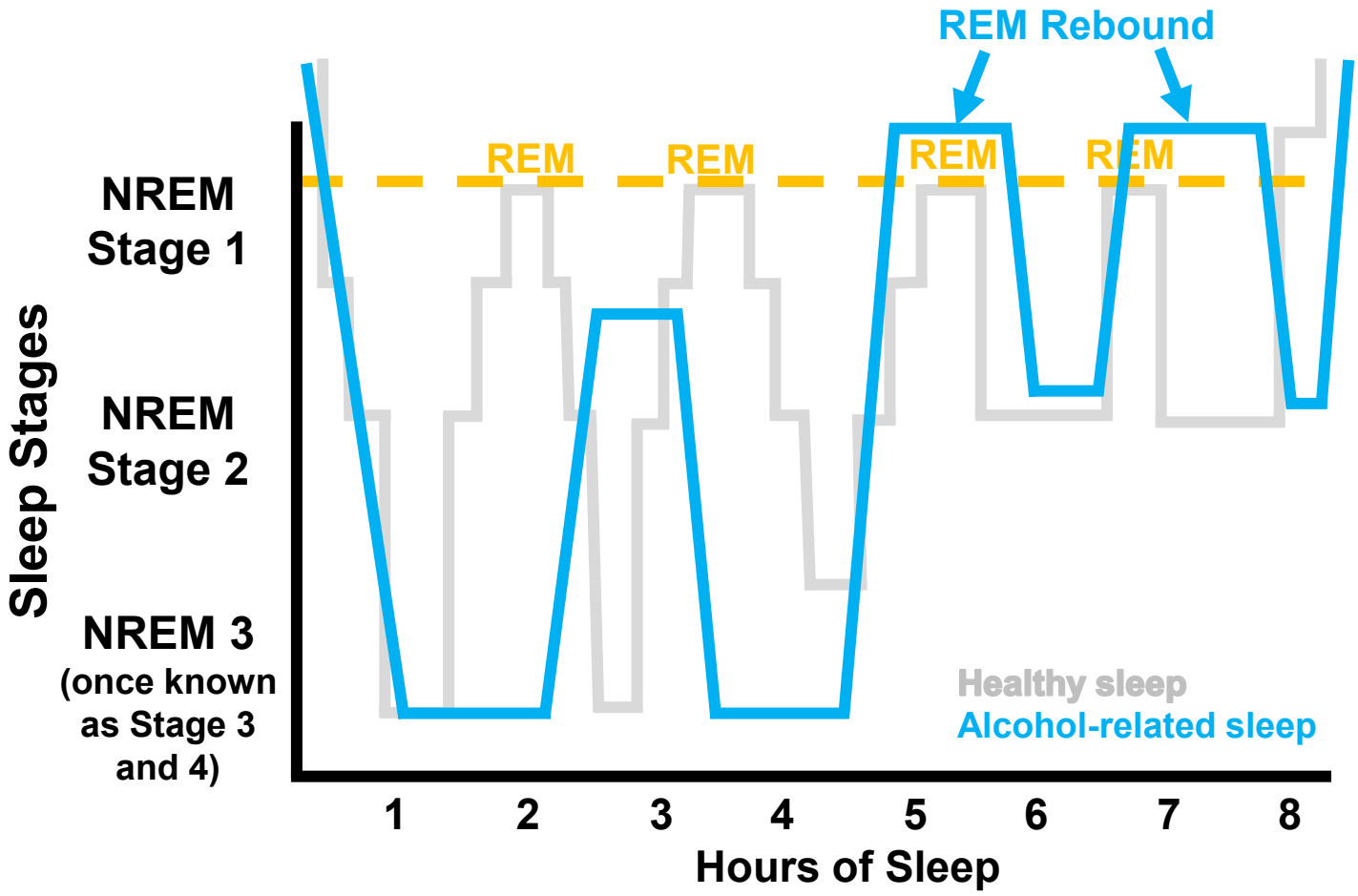
Don't assume students will think of "consequences" as "negative."

Student Perceptions of Consequences

Consequence	Negative	Neutral	Positive
Arrested/citation	93%	5%	**3%**
Received lower grade	88%	13%	**0%**
Regretted sex	84%	12%	**4%**
Vomited	77%	14%	**9%**
Physically embarrassed	58%	37%	**5%**
Socially embarrassed	51%	42%	**7%**
Blackout	53%	35%	**12%**
Late to work/class	53%	35%	**12%**
Hangover	47%	28%	**25%**
Woke up in someone else's bed	42%	42%	**16%**
Binge eating	17%	56%	**27%**
Skipped meals	16%	58%	**26%**

Source: Mallett et al., 2008

Alcohol's Effect on Sleep & Mood



Higher BAC at bedtime = more REM suppression & increased wake periods

REM deprivation =

- ↑ Anxiety
- ↑ Irritability
- ↑ Jumpiness

NREM 3 deprivation =

- ↑ Fatigue

After 3 days of daily drinking your body adjusts, but then if you stop drinking daily it will cause sleep disturbance.

Exercise 4.1: Discussing Consequences *without* Corresponding Feedback

- Assume you are speaking with a student who **expresses a concern** about **poor sleep** and reports **drinking heavily 3 times a week** (BAC at bedtime = .10, meaning it will take 6.25 hours to metabolize) and they only have 6 hours of sleep opportunity.
- Using the information just discussed, write a script in the **BASICS Session 4 Exercise Worksheet** for how you would discuss this alcohol-related consequence using the Ask-Tell-Ask model.



Need more time for Exercise 4.1?

If you need more time, please pause the video now and resume it when you are done with Exercise 4.1



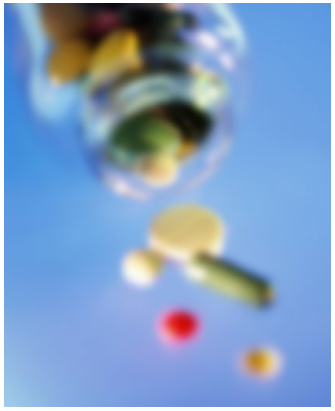
Alcohol and Drug Interactions

- **Potentiate** = To enhance or increase the effect of a drug.
  - Occurs when one has used 2 drugs that work in the <u>same direction</u>



- Alcohol + Cannabis
- Alcohol + Vicodin
- Alcohol + Valium





  - Lethal risk as **1+1 can be > 2**

Alcohol and Drug Interactions

- **Antagonize =** To interfere with (or block) the physiological action of another drug.
  - Occurs when one has used 2 drugs that work in the opposite direction



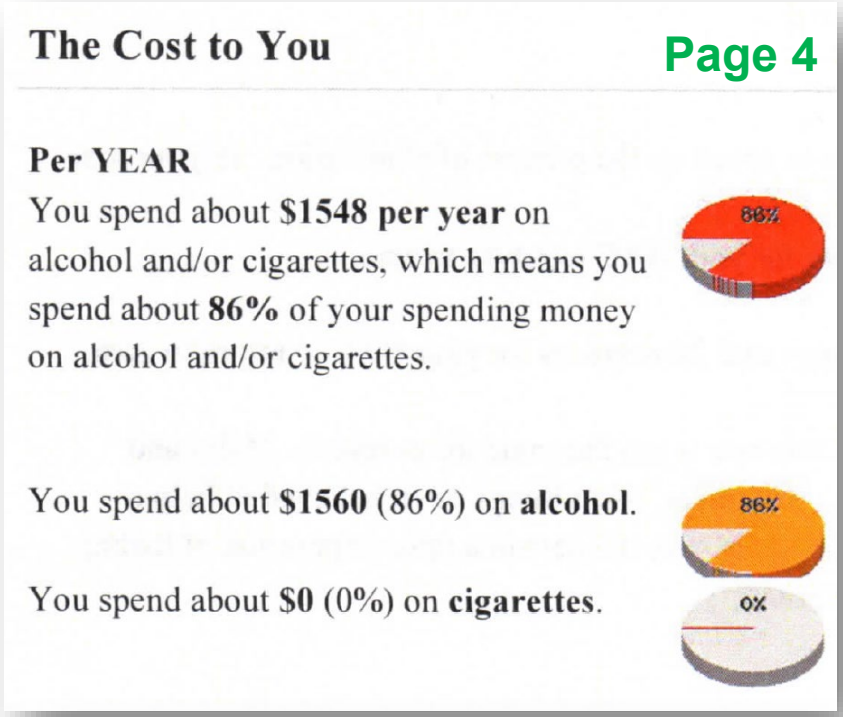
- Alcohol + Caffeine
- Alcohol + Cocaine
- Alcohol + Ecstasy

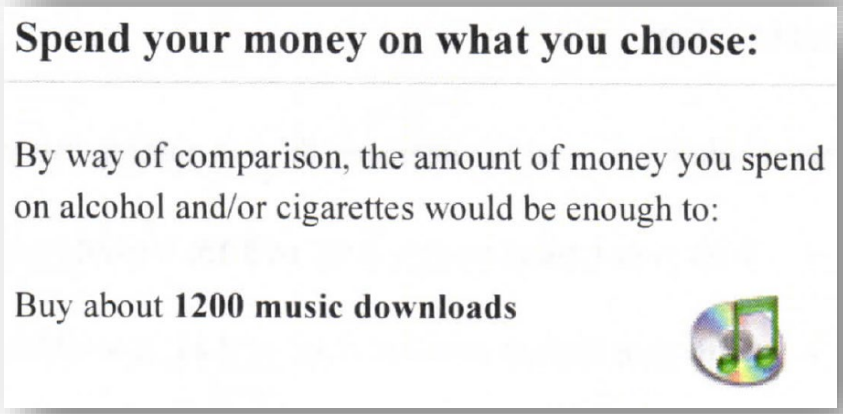




- Lethal risk when more drug is ingested to produce desired effect and **1 drug clears the body faster**

Financial Costs in the Feedback





EXAMPLE Discussion of this Feedback:

ASK: You mentioned you're feeling stressed about finances. I'm not sure if this matches your experience; it may not.

TELL: Based on how many drinks you said you consume in a typical week, we calculated that you're spending approximately $1,550 a year on alcohol, which represents about 86% of the amount you told us you had in "spending money." This would equate to about 1200 music downloads.

ASK: What else might you want to spend that money on, if you decided not to spend it on alcohol?

Reflect student responses.

RETHINKING DRINKING℠
Alcohol & your health

- Cocktail content calculator
- Drink size calculator
- Alcohol calorie calculator
- Alcohol spending calculator
- Blood Alcohol Content Calculator

Alcohol spending calculator

Do you know how much money you're spending on alcohol each week, month, or year? Over time, costs can add up quickly! Use this calculator to figure out your average spending on alcohol per week, month, and year.

On average, how many days per week do you drink alcohol?	On a typical drinking day, how many drinks do you have?	What's the average price per drink?	Here's your average spending per...
3	4	$5.00	Week: $60.00 Month: $260.00 Year: $3,120.00

Exercise 4.2: Discussing Consequences *with* Corresponding Feedback

- Using the feedback depicted in the **BASICS Session 4 Exercise Worksheet** (*generated for a fictitious student at the University of Missouri*), write a script for how you would discuss the alcohol-related consequence using the Ask-Tell-Ask model.
- You may ask for permission **explicitly** (e.g., Would it be okay…?) or **implicitly** (*modeled in relation to financial costs*).
- Assume the student **expressed a goal of maintaining a healthy weight** and is ***not*** demonstrably experiencing or reporting symptoms that would make you concerned they might have anorexia nervosa (for which discussion of this feedback would be contraindicated).



Need more time for Exercise 4.2?

If you need more time, please pause the video now and resume it when you are done with Exercise 4.2



Weight-related Risks in the Feedback

Physical Costs **Page 4**



How many cheeseburgers did you *drink* last month?

Each standard drink also contains approximately 100 to 140 calories. Given the number and types of drinks you reported drinking, in ONE month you drank about 5676 calories, or the equivalent of 16 cheeseburgers.

If you ran at a pace of 6 miles per hour (a 10-minute mile) you would have to run for 10 hours and 1 minute to burn off all of the calories you accumulated from drinking alcohol.

Maintain a steady, healthy diet.

Attempts to save or "bank" calories in one meal so that you can eat or drink more calories at a later time can impact your mood, alter your metabolism and cause changes in body weight and composition. Frequent or extreme attempts to save calories followed by later binges may become a sign of disordered eating behaviors.

Eating a steady, healthy diet is important in maintaining a healthy weight, positive mood and high energy levels.

RETHINKING DRINKING℠
Alcohol & your health

- Cocktail content calculator
- Drink size calculator
- Alcohol calorie calculator
- Alcohol spending calculator
- Blood Alcohol Content Calculator

Calories per week: 1,224

Beverages	Serving size (fl. oz.)	Calories (average)	Average number of drinks per week
Beer 			
Regular	12	153	8
Light	12	103	0
Distilled Spirits (80-proof) 			
Gin, rum, vodka, whiskey, tequila	1.5	97	0
Brandy, cognac	1.5	98	0
Liqueurs	1.5	165	0
Wine 			
Red	5	125	0

Drinking and Driving-related Risks in the Feedback

Drinking and Driving

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Alcohol-related accidents and violence are the leading cause of death for Americans under the age of 35. When you drive after drinking (or ride with a driver who has been drinking), you greatly increase your risk for alcohol-related injuries or legal problems.

You reported that you drove 1 time in the past month after having 3 or more drinks. It is very likely that you were driving while intoxicated.

You also reported that, in the past month, you rode 5 times with a driver who drank 3 or more drinks. It is very likely that your driver was driving while intoxicated.

The chart below shows the risks of fatal crashes when drinking compared to sober drivers. Remember, your self-reported highest BAC level was 0.41%.

If You Drive With a BAC in This Range:	Your Chances of Being Killed in a Single-Vehicle Crash Are:
0.02-0.04	1.4 times more likely
0.05-0.09	11 times more likely
0.10-0.14	48 times more likely
0.15 and above	380 times more likely

Sex-related Risks in the Feedback

Sexual Risk

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Alcohol use is correlated with increased risk for other unintended negative consequences to sexual health. In a report by the Substance Abuse and Mental Health Services Administration (SAMHSA), heavy drinkers between the ages of 18-25 were more than twice as likely to contract a sexually transmitted infection in the past year than young adults who abstained from alcohol.

Alcohol is also more closely associated with crimes of sexual violence than any other drug (CASA, 1999). The National Institute on Alcohol Abuse and Alcoholism estimates that, of all women who have experienced sexual assault, "approximately one-half of those cases involve alcohol consumption by the perpetrator, victim, or both" (NIAAA).

It is important to note that consent cannot be given when someone is under the influence of drugs and/or alcohol. Perpetrators may attempt to use alcohol and/or drugs to facilitate a sexual assault, but alcohol use is never the cause, or an excuse, for sexual assault. Sexual assault is an umbrella term that encompasses all nonconsensual sexual behaviors, including rape. Sexual assault can happen to anyone, regardless of gender identity and sexual orientation. Sexual assault is a crime.

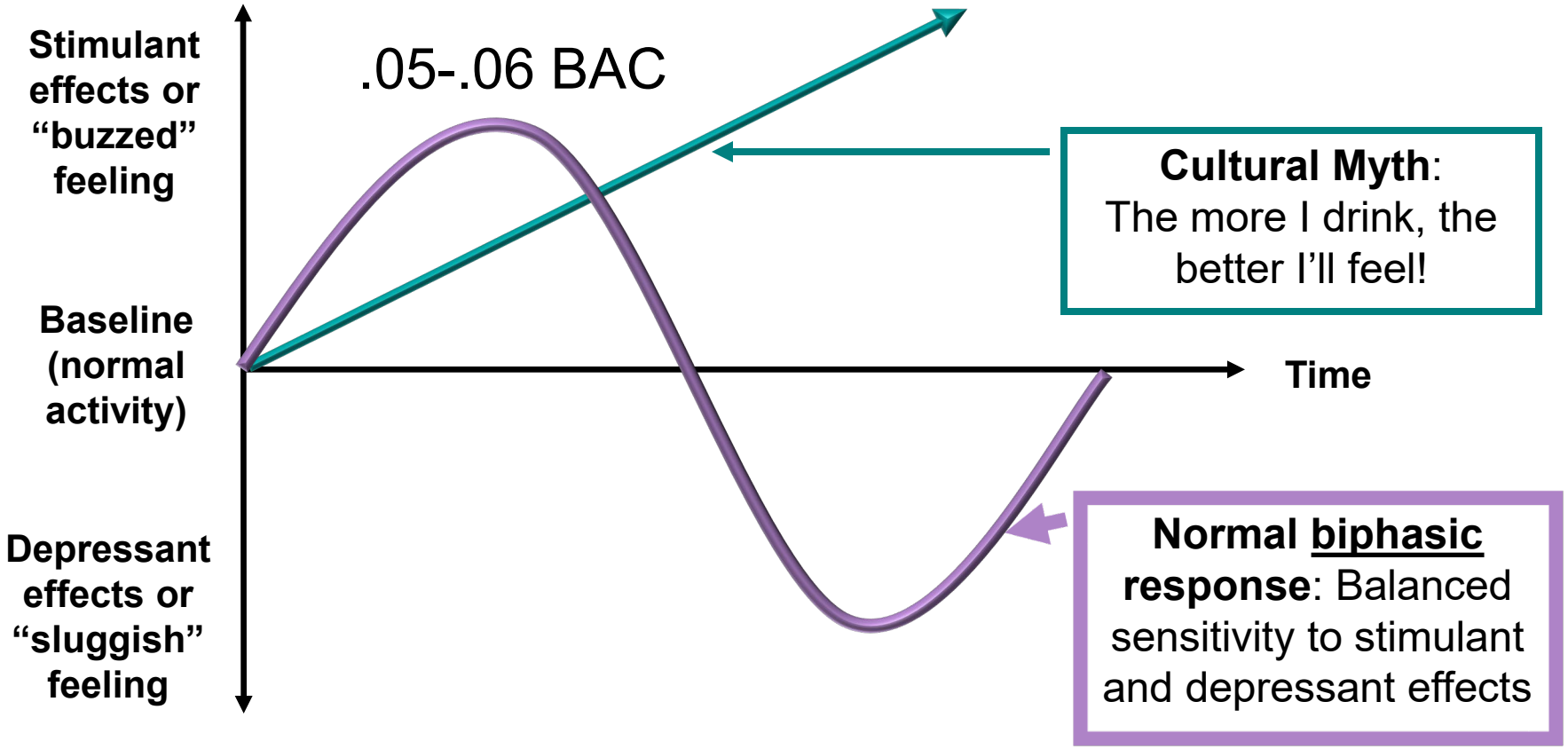
Biphasic Effect of Alcohol

- **“Point of diminishing returns”** = the point at which one has maximized the stimulant/“positive” effects of alcohol and beyond which the depressant/”negative” effects of alcohol are increased.

- <u>EXAMPLE of how to lead into discussion of the biphasic effect and the “point of diminishing returns”</u>:
- When people start to lose their buzz, what do they usually do?
- Do they ever get their buzz back?
- How does the buzz you experience now compare to the one you used to get when you first started drinking? *(signals tolerance)*

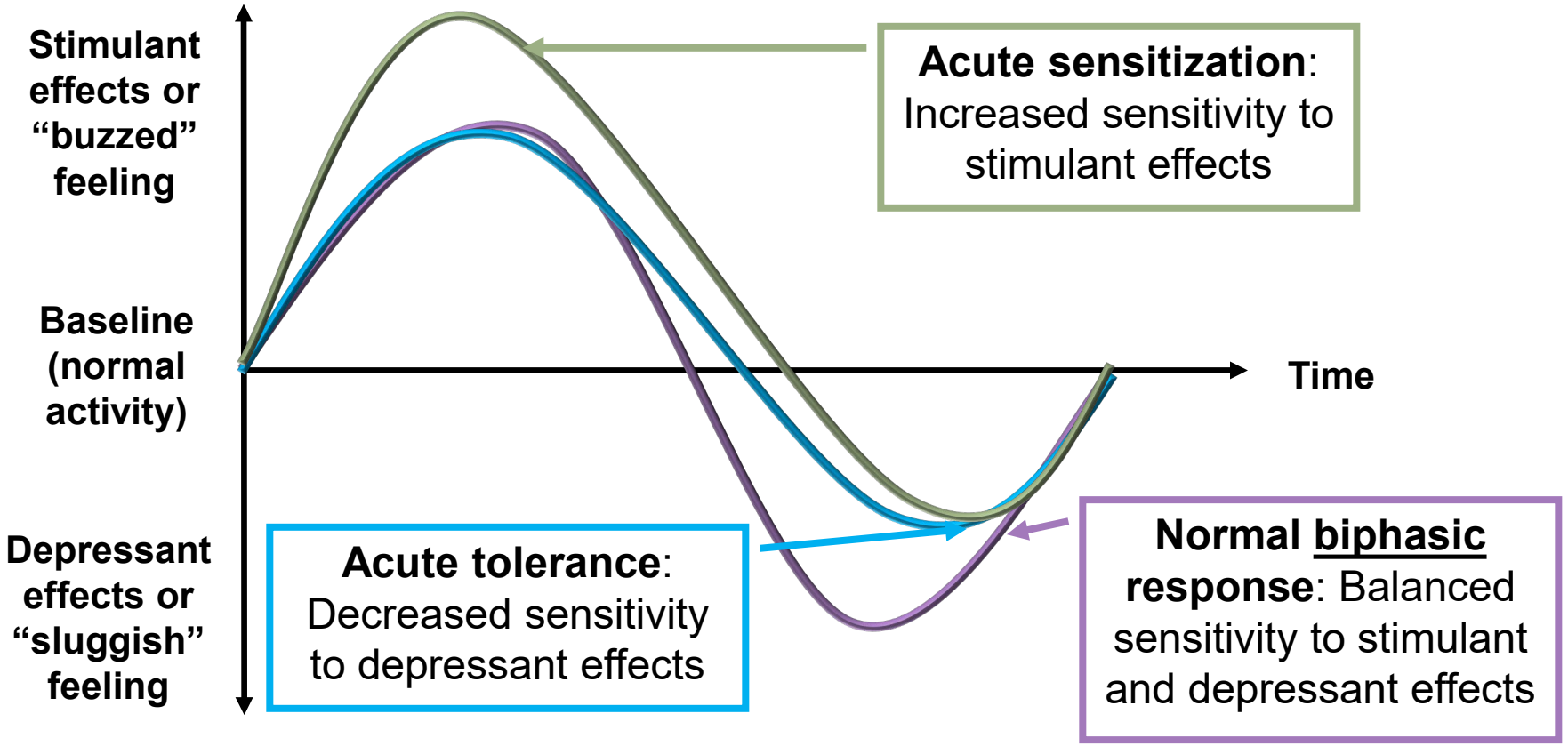


Biphasic Effect of Alcohol



Biphasic Effect of Alcohol

Genetic predisposition to experience alcohol differently



Source: Newlin & Thomson (1990)

Exercise 4.3: Explaining the Biphasic Effects of Alcohol & the Point of Diminishing Returns

- Remembering what you learned in Session 2 about **alcohol myopia**, use the space provided in the **BASICS Session 4 Exercise Worksheet** to write a **script** for how you would **explain the biphasic effects of alcohol** and the **point of diminishing returns** to a student who is hoping to avoid “drunk texting my ex.”
- Try to keep it brief (no more than 6 sentences).



Need more time for Exercise 4.3?

If you need more time, please pause the video now and resume it when you are done with Exercise 4.3



Blackout Risk in the Feedback

Blackout Risk

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One early warning sign of developing abuse or dependence is the presence of alcohol "blackouts" - an inability to remember things that occurred while drinking.

Your reported BAC levels are high enough to suggest that you should be experiencing alcohol blackouts. If you are not experiencing blackouts, you may have developed an increased tolerance to alcohol. An increased tolerance to alcohol can also increase your risk for future negative consequences.

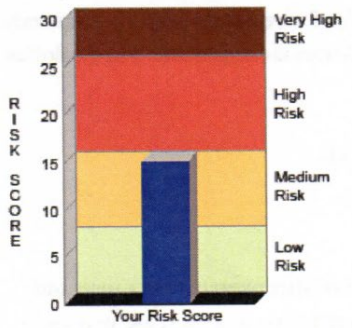
Alcohol Use Disorder Risk in the Feedback

Personal Risk Factors

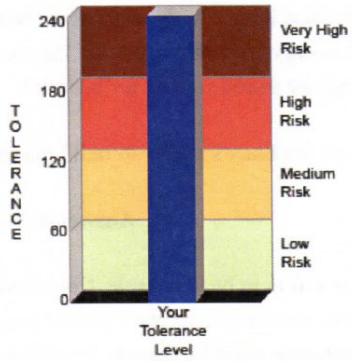
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There are several factors that may indicate your overall risk of developing alcohol-related problems. While there is no way to definitively predict whether a person will be harmed by alcohol or develop alcohol dependence, "high-risk" areas are areas to which you may want to give additional consideration in the future.

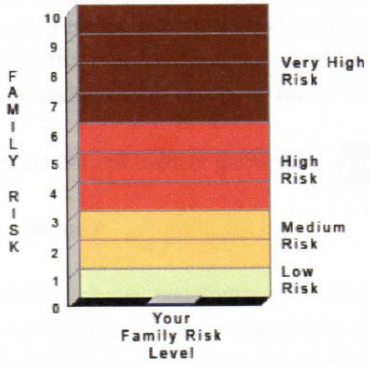
Risk Score



Tolerance Level



Family Risk



Based on your responses, your risk of having alcohol related problems or developing dependence is medium.

Past consequences are a reliable predictor of risk for future alcohol problems. Higher scores mean that, compared to other people, more harm has resulted from your drinking and that you are at greater risk for future alcohol problems.

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More about Tolerance...

Functional tolerance is the result of drinking behavior and indicates that the person's body and brain have become adapted to the presence of alcohol. With a high functional tolerance, a person would need to drink more to feel the same effects they used to feel when they drank less. The increase in overall drinking can result in a greater risk of developing alcohol dependence.

Metabolic tolerance is genetic and is also influenced by behavior. A person with a high metabolic tolerance may feel more stimulated by alcohol intoxication, and their liver may produce more of the enzyme (dehydrogenase) that breaks down alcohol and eliminates it from the body. A person with a high metabolic tolerance would need to drink more frequently and in greater amounts to raise their BAC to feel the effects of alcohol. However, the increased production of dehydrogenase can be damaging to the liver and the increase in overall can also lead to a greater risk of developing alcohol dependence.

NIAAA's Project MATCH criteria.

Most tolerance is learned

- Classical conditioning (Pavlov)
- **Association of two events** such that one event acquires the ability to elicit responses formerly associated with the other event, due to the **predictive utility** of the conditioned event.





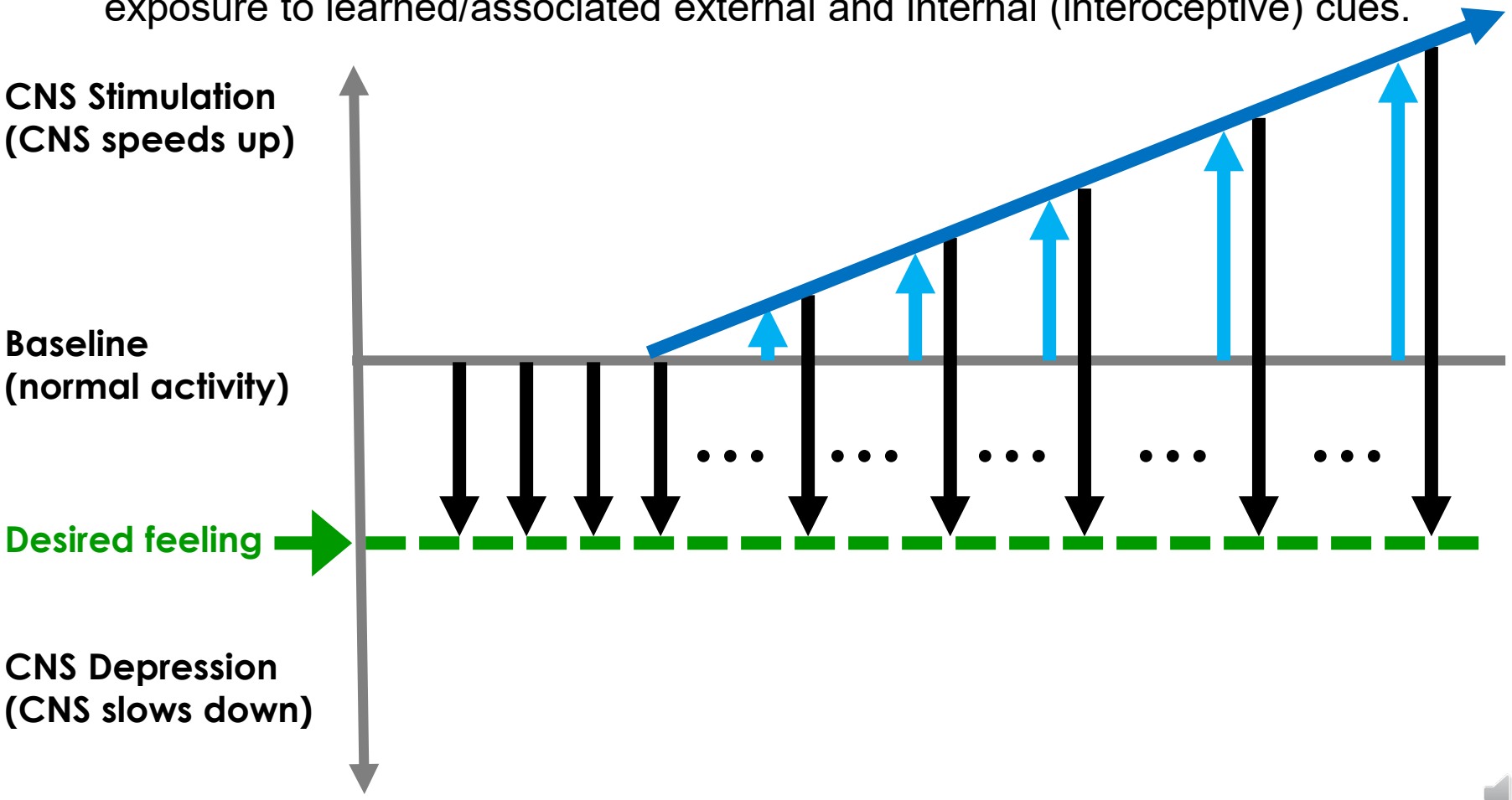


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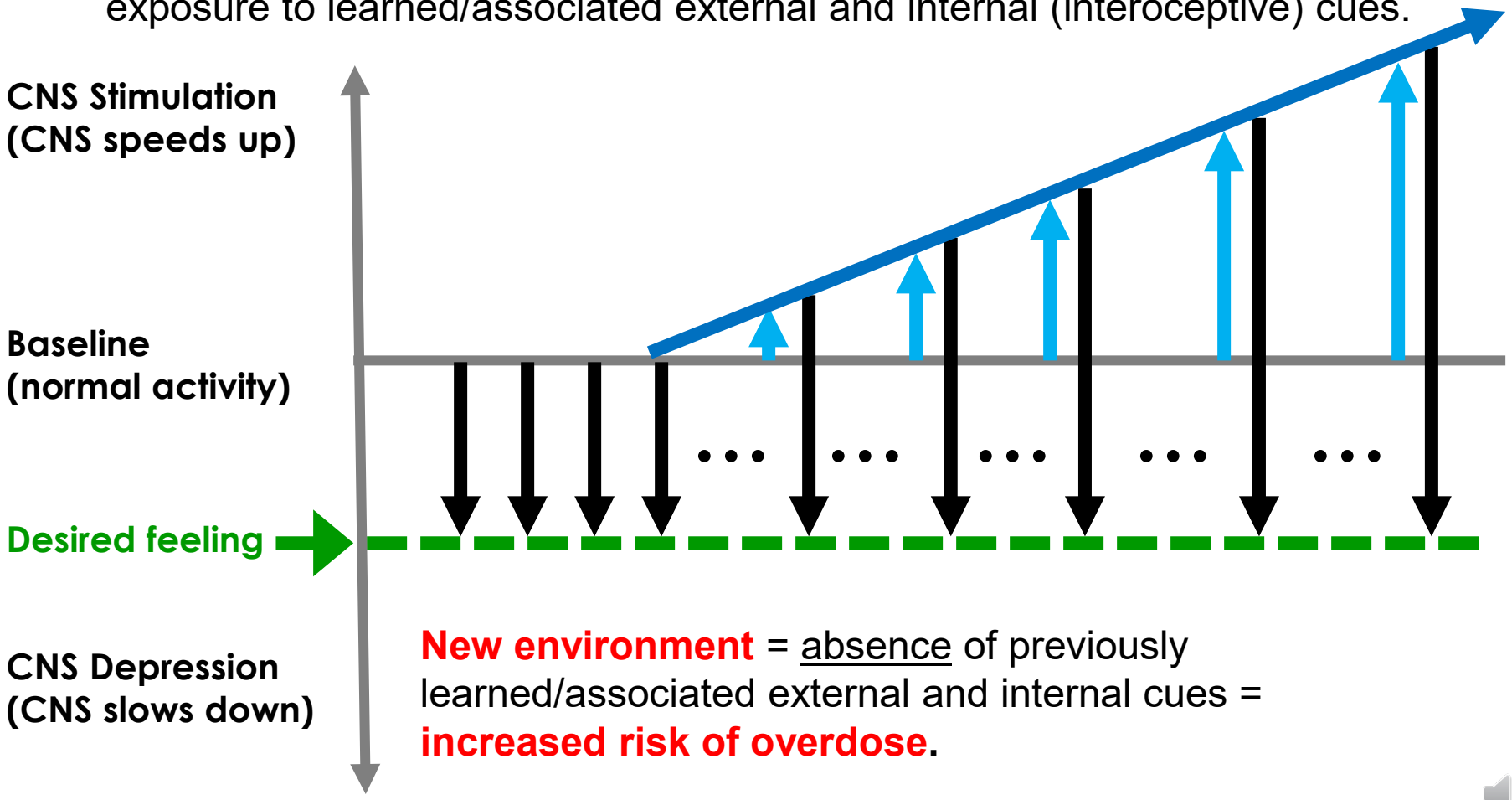
Most tolerance is learned

Tolerance develops as your brain attempts to **maintain homeostasis**. **Antagonistic processes begin *BEFORE* taking the drug**, based on exposure to learned/associated external and internal (interoceptive) cues.



Increased risk of overdose in absence of learned cues

Tolerance develops as your brain attempts to **maintain homeostasis**. **Antagonistic processes begin *BEFORE* taking the drug**, based on exposure to learned/associated external and internal (interoceptive) cues.



New environment = absence of previously learned/associated external and internal cues = **increased risk of overdose**.

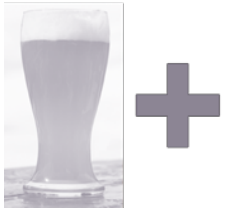
Disadvantages of Tolerance

- **Lack of warning system** – people with a tolerance do not receive warning signals from their body that they are reaching high BALs (e.g., people without a tolerance get dizzy and nauseous).
- **False sense of security** – tolerance reduces conception of how impaired the individual really is; the person may feel "okay" to drive, but has a BAL of over .08. Person is trained at being impaired.
- **Expense** – require more drinks to get a buzz…and that buzz is not as strong (see biphasic effect chart) – less positives and more negatives
- **Increased negative health risks** – more stress on liver, stomach lining, etc.



Tolerance can be *Unlearned*

- By abstaining (or drinking very little alcohol) for a few weeks (~3 weeks) you can lower your tolerance.





- However, *like learning to ride a bike*, **once you've learned tolerance**, even if you haven't experienced it in awhile, your body remembers quickly when you resume (drinking behavior).



Exercise 4.4: Explaining Tolerance

- Use the space provided in the **BASICS Session 4 Exercise Worksheet** to write a script for how you would explain **tolerance** and the **benefits of a "brief vacation" from alcohol** to a student who is *not* yet expressing a commitment to change their drinking behavior yet has concerns about the feedback depicted in the worksheet.
- Try to keep it brief (no more than 6 sentences).



Need more time for Exercise 4.4?

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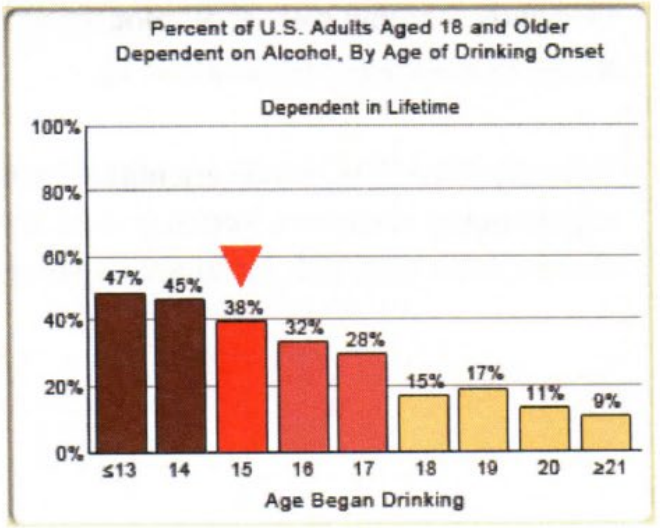
Alcohol Use Disorder Risk in the Feedback

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Early alcohol users are more likely to be alcohol dependent

More than one-third (38%) of persons who began drinking at age 15 were alcohol dependent at some point in their lifetime.

You said that you began drinking alcohol at age 15. In an analysis of data from the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC), early alcohol users were more likely to develop alcohol dependence at a later age. Nearly one-half (47%) of persons who began drinking before age 14 were alcohol dependent at some point in their lifetime, and 13% were dependent in the past year, compared to 9% and 2%, respectively, of those who began drinking after age 20.



While it is not yet known if drinking at an early age actually causes later alcohol problems, there is a clear relationship between early alcohol use and later alcohol problems and dependency. These data suggest that delaying drinking may reduce the risk of later alcohol problems and dependency.

Please download and complete the **BASICS Session 4 Post-video Reflection** now.

Code for Session 5 Video: **Track**

(Write down this code to access the video later)