BARTENDER AND SERVER WORKBOOK



Alcohol's Path Through the Body

Coaching the Experienced Bartender & Server



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Maj. Mark Willingham, PhD served with the Florida Division of Alcoholic Beverages and Tobacco for twenty-eight years and provided alcoholic beverage licensing, regulatory, and law enforcement services as a Law Enforcement Commander. In addition to serving as the Division's Chief Financial Officer and Chief Training Officer, he served as Florida's Responsible Vendor Program Administrator, Florida's Youth and Alcohol Program Administrator, and as a State Hearing Officer.

Maj. Willingham earned his PhD in Business Administration with a specialization in Business and Corporate Security focusing on responsible alcohol sales practices. He was the recipient of the Fulbright Fellowship in Police Studies to the United Kingdom where he conducted research on youth access to alcohol prevention, regulation of the alcoholic beverage industry, and control of abusive drinking. Mark served as the International President of the FBI National Academy Associates and has authored four books and over fifty articles in state and national law enforcement journals on leadership, management, and alcohol related issues. Mark is a national speaker on alcohol related risk, mitigation, and responsible alcohol relating issues.



Coaching the Experienced Bartender & Server

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Welcome and Introduction

The Coaching the Experienced Bartender series is designed for bartenders and servers like you who are already skilled in the basics of serving alcoholic beverages. The objective of the workbook is to refresh your knowledge and awareness and build on your current skills and training to help you reach a new level of responsible alcohol service.

One of the most important duties you have as a bartender or alcohol server is helping your guests drink responsibly to promote a satisfying hospitality experience. It helps ensure the safety of your guests and others in the community. Just like first responders, bartenders, alcohol servers, and other front of the house staff have a responsibility to protect the community. You accomplish this task by preventing your patrons from becoming intoxicated, by not serving intoxicated patrons, and by not allowing intoxicated patrons to drive away from your location. Your knowledge of responsible alcohol service and your ability to apply this knowledge is absolutely vital to the success of your establishment and to the safety of your community.

One of the most important duties you have as a bartender or alcohol server is helping your guests drink responsibly to promote a satisfying hospitality experience.

Public safety must be a personal and professional consideration of everyone in the alcoholic beverage industry. Professionals in the retail beverage alcohol industry must adopt and employ a personal value system for the safe service of alcohol and commit to preventing the the sale of alcoholic beverages to underage persons, persons who are intoxicated, and/ or persons habitually addicted to alcohol.

It may be counterintuitive to those in the hospitality business to deny someone alcohol service. Refusing service can place employees in a challenging and stressful situation. Sometimes putting limits on alcohol service is the best thing you can do for your patron. Alcoholic beverage service policies, practices, training, and management prepare and help you to provide your guests with a wonderful experience and help you to protect your guests, yourself, and others from alcohol-related harms. In the long run, guests and the community

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will be grateful for your concern and action. You have the right to refuse service to anyone you do not feel comfortable serving unless that refusal is based on the individual's constitutionally protected rights (i.e., race, creed, color, gender, sexual orientation, religion).

All front of the house and customer contact employees must be prepared to contribute to and support responsible alcohol service. This behavior applies to hosts/hostesses, servers, bartenders, bar-backs, bussers, valets, security, coat checkers, cashiers, managers, and food runners, and anyone else who comes into contact with guests.

The workbooks in this series are designed to provide information to help you understand and implement the law and rules in your community, recognize and prevent intoxication, recognize and prevent alcohol service to and consumption by habitually addicted patrons, checking identification and preventing alcohol service to and consumption by persons under 21 years of age, use of legal and illegal drugs with alcohol and the effect(s) of that poly-drug use on patrons, and difficult situations occurring in your establishment.

Engaging in responsible alcohol service is not a once-a-year or a once-every-5-years activity. It is a daily duty to your guests, your coworkers, your establishment, and yourself. By applying the skills you acquire and enhance through completing this series of workbooks, you will make a significant contribution to responsible alcohol service.

Some information presented builds on information presented in the National Restaurant Association's ServSafe program, the American Hotel and Lodging Association's CARE program, and Health Communications, Inc.'s <u>Training for Intervention ProceedureS</u> (TIPS) program.



Bartender and Server Workbook: Path of Alcohol Through The Body

Path of Alcohol Through the Body

What are the which alco	the ways in whol is abso	which alcohol rbed.	is absorb	ed? Place a	check ne	xt to the manner in
	Skin	Mouth		Stomach		Small Intestine
Which of t	he above is	the way most	of the alo	cohol is abso	rbed by t	he body?
How quicl	dy can alco	hol reach the b	orain after	entering the	drinker's	mouth?
	<u></u>					

Because of its ability to mix with water, ethyl alcohol is readily absorbed and distributed throughout the body via the bloodstream. Alcohol readily crosses important biological membranes, such as the blood-brain barrier, to affect many organs and biological processes in the body. There are five factors to consider in terms of the path of alcohol through the body: absorption, transfer, elimination, and tolerance, and time.

Absorption

Absorption through the Skin

Absorption of ethyl alcohol into the blood can occur through the skin and via the lungs. The amount of alcohol absorbed through the skin or lungs by breathing alcohol vapors is largely undetectable in a bar or restaurant environment.

Absorption through the Mouth

A small amount of ethyl alcohol is immediately absorbed into the bloodstream through the mouth. As soon as alcohol enters the mouth, 5% of it is absorbed into the bloodstream. From the moment alcohol touches a person's tongue, some of it enters the bloodstream; this small quantity of alcohol can affect the brain in as few as 3 minutes, resulting in initial feelings of warmth and slight wooziness.



Absorption through the Stomach

When it is swallowed, the alcohol moves into the stomach, where some is absorbed into the bloodstream through the stomach wall. As much as 20% of the alcohol is absorbed into the bloodstream through the stomach wall.

Unlike food, alcohol requires no digestion before being absorbed. Eating food while you drink alcohol slows down the rate of absorption by delaying the emptying of the stomach.

Absorption through the Small Intestine

When closed, a valve at the base of the stomach keeps contents of the stomach in place. When the valve is opened, stomach contents-including alcohol, if alcohol has been consumed-flow into the small intestine. The small intestine has a very large surface area with many tiny blood vessels. When consumed on an empty stomach, as much as 75% to 85% of a single drink of consumed alcohol is readily absorbed through the small intestine within 20 to 40 minutes.

Alcohol Transfer

Are there factors that relate to how quickly alcohol is transferred into the blood stream? What are some of those factors?

Alcohol Transfer into the Bloodstream

There are many factors that influence how quickly alcohol moves into the small intestine and is absorbed into the bloodstream.

- A straight-up drink is absorbed into the bloodstream more quickly than a drink diluted by water or juice.
- Alcohol mixed with a carbonated beverage will be absorbed into the bloodstream more quickly than alcohol mixed with a non-carbonated beverage–carbonation speeds the alcohol into the bloodstream.
- How quickly someone is drinking also affects how quickly the alcohol reaches the bloodstream. Someone who gulps a shot of alcohol will get intoxicated more quickly than someone who sips a shot of alcohol.
- People who eat something while they are drinking will absorb alcohol more slowly than someone who is drinking on an empty stomach. When alcohol is consumed with food, the body takes longer to absorb and process the alcohol.
- A person's mood can have a big impact on alcohol absorption rates. Someone who is depressed, tired, or feeling stressed will be affected more quickly than the person who is not depressed, tired, or under stress. People who are "ready to party" will likely become intoxicated more quickly because they expect or intend to be affected quickly.
- Mixing alcohol with drugs can affect the rate of absorption.

Alcohol Dilution

Once in the bloodstream, alcohol is rapidly transported throughout the body. In the body, alcohol is diluted by all the water in one's cells and tissues. About 60% of the average man's body weight is water while about 50% of the average woman's body is water. Alcohol is attracted to water in the body, which is why it is found in body tissues with high amounts of water. Once all the alcohol in the bloodstream has been absorbed by tissues throughout the body, all tissues and organs in the body–including the brain–have approximately the same concentration of alcohol.

Even small doses of alcohol can affect the body. Alcohol affects the cardiovascular system by increasing the heart rate. Blood vessels dilate (widen) when exposed to alcohol; those near the skin surface open up, giving the drinker a feeling of warmth, a glow, or even a blush. Although those who have consumed alcohol experience a feeling of warmth, their body temperature actually decreases, and does so rapidly, because the pores of the skin open up. This rapid decrease in body temperature is why alcohol can contribute to deaths caused by hypothermia.

Alcohol may irritate the stomach and increase the production of stomach acids, causing an upset stomach. Alcohol is also a mild diuretic, increasing the frequency of urination.

Alcohol is a depressant, not a stimulant. It can change people's moods.

Alcohol Elimination



Which one does the body use to eliminate most of the alcohol?

How much alcohol does the average person eliminate each hour?

Through Urination

After alcohol has been consumed and reaches the bloodstream, up to 10% of the alcohol is disposed of through the urine, and 80% to 90% by oxidation in the liver. The average drinker eliminates about 2/3 of a standard drink unit (a shot) per hour. This rate of elimination translates to a reduction in blood alcohol concentration (BAC) by about 0.015 g% to 0.017 g%.

Through Exhalation

Up to 8% of alcohol is eliminated by breathing (exhalation), which is why you might be able to detect the odor of alcohol on a drinker's breath. This odor is also the basis for triggering police officers to initiate the Breathalyzer testing process.

Through Sweating

About 2% of alcohol is eliminated by sweating, which is why it may be possible to detect the odor of alcohol on a drinker's body.



Through Oxidation in the Liver

The majority of alcohol (80% to 90%) is removed by the liver as it burns up the alcohol through a process called oxidation. During oxidation, the liver changes the alcohol into water, carbon dioxide, and energy. Almost all of the ethyl alcohol that enters the body through a drink of alcohol is completely oxidized to acetic acid. While the body eliminates trace amounts of ethyl alcohol through urine, almost all of the alcohol eliminated through urine has been converted to acetic acid by the liver.

The passage of time, during which the body is allowed to process the alcohol, is the only method there is to become sober. Taking cold showers and drinking strong coffee merely result in a clean, cold, wide-awake drunk.

Average Standard Rate of Alcohol Elimination

The rate of alcohol elimination is about the same for everyone. It takes a person approximately one hour to eliminate 2/3 of the alcohol in a standard drink. For most people, it takes about 80 minutes to eliminate a standard drink. Nothing can speed up this process. The length of time required to become sober differs from person to person, and depends on how much alcohol the person consumed and how quickly the alcohol was consumed. The passage of time, during which the body is allowed to process the alcohol, is the only method there is to become sober. Taking cold showers and drinking strong coffee merely result in a clean, cold, wide-awake drunk.

BAC and Rate of Elimination

BAC affects the rate of elimination of alcohol from the body. Elimination tends to be higher when the drinker's BAC is very high or very low. Also, people who habitually drink alcohol-addicts/alcoholics-depending on liver health, may metabolize alcohol at a significantly higher rate than the average person. The body's ability to metabolize alcohol quickly tends to diminish with age.

Tolerance

What is tolerance? What are the types of alcohol tolerance? What are the elements of alcohol tolerance?

Tolerance is commonly expressed as a person's ability to hold his or her liquor. People who drink frequently may build up a higher tolerance to alcohol. They may have also learned how to mask some of the behavioral cues of being intoxicated. Having a high tolerance has no effect on a person's BAC level or level of intoxication. Just because a person isn't showing the typical behaviors of intoxication does not mean the person isn't impaired. Conversely, an individual who drinks less frequently may show signs of intoxication after consuming only a small amount of alcohol.

There are two types of tolerances involving alcoholic beverages: metabolic tolerance and functional tolerance.

Metabolic Tolerance

Metabolic tolerance is the result of alcohol being metabolized more quickly (up to 72% more quickly) in chronic users. A higher metabolic rate for alcohol means chronic alcohol users achieve lower peak BACs than do average drinkers when both groups ingest the same amounts of alcohol. The liver reacts to a greater consumption of alcohol by producing more of the enzyme (alcohol dehydrogenize) that metabolizes alcohol.

Although the alcohol is metabolized more quickly, the chronic user stills achieves the same level of intoxication from alcohol absorption before the alcohol is metabolized as does the average drinker. The person with high tolerance gets just as drunk based on the alcohol he or she consumes as someone else does, but the drinker with high tolerance may not remain intoxicated for quite as long.

At a certain point, a chronic drinker's liver loses its ability to metabolize alcohol at the higher rate. Eventually, the liver will actually reduce or cease functioning.



Functional Tolerance

In contrast to metabolic tolerance, functional tolerance is the result of actual changes in the liver or the system's sensitivity to alcohol. As the body loses sensitivity to the effects of alcohol, functional tolerance increases. A person with high functional tolerance may not seem to be as intoxicated as a person with lower or no functional tolerance. He or she may actually need more of alcohol to achieve the same level of intoxication. Heavy alcohol users can have twice the tolerance for alcohol as an average person.

Experienced drinkers with high tolerance can often consume a lot of alcohol without showing its effects, despite having BACs above .08%. In many cases, these individuals have learned to hide the behaviors, even after becoming intoxicated. Tolerance does not affect a guest's BAC, just his or her ability to hide the effects of alcohol. For this reason, you should not exceed the drink limits for each patron based on drink counting. Habitual drinkers with high functional tolerance are sometimes referred to as functioning alcoholics.

Other individuals are very sensitive to alcohol and have a lower tolerance than normal. They may show signs of impairment or intoxication from small amounts of alcohol. Even though they are under 0.08 g% BAC, their driving ability, coordination, reflexes, and vision may be impaired enough to place them at high risk of accident and injury.

Time

How long does it take for an intoxicated patron to totally absorb the alcohol they consume?

What activities help a patron "sober up?"

Absorption

Absorption of alcohol continues for longer than one might think-from 30 to 90 minutes after actual consumption has stopped, depending on how much food has been consumed with the drinks. For example, a 150-pound person who eats and consumes alcoholic drinks during a 3-hour period may reach a BAC of .09%. Despite having consumed no alcohol after the 3-hour period and allowing for alcohol elimination, the person's BAC can rise to .12% before it starts to fall. Typically, elimination of alcohol occurs at approximately 2/3 standard drink per hour.



The point of knowing that alcohol absorption continues is an important one. It means alcohol can affect guests long after you have stopped serving them drinks. Although they may appear fine, guests may become intoxicated after leaving the establishment because alcohol will continue to enter the bloodstream.

Sobering Up

Some drinkers try all sorts of things to sober up. In reality, coffee, fresh air, exercise, and cold showers will not help. Neither will sleep. Time is the only thing that will sober up someone who is drunk. It takes a lot longer than most people think for the body to eliminate alcohol, which is one reason why it is so important to separate alcohol consumption from driving. You-the host/hostess, server, bartender, bar-back, busser, valet, security, coat checker, cashier, manager, and food runner-can help someone who is drunk to sober up by not serving him or her additional alcohol.

Let's See What You Learned

	alcohol is abso	rbed:		
	Skin	Mouth	Stomach	Small Intestine
Which	of the above is	s the way most of	the alcohol is absorb	ed by the body?
How qu	uickly can alco	hol reach the brair	n after entering the d	rinker's mouth?
Are the	re factors that	relate to how quicl	kly alcohol is transferr	ed into the blood stream
What a	re some of tho	ose factors?		

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Which activity removes a large amount of alcohol from the body?
Breathing Drinking Coffee Cold shower Exercising Urinating Liver function
What are the ways in which the body eliminates alcohol?
Which one does the body use to eliminate most of the alcohol?
How much alcohol does the average person eliminate each hour?
What is tolerance?
What are the types of alcohol tolerance?
What are the elements of alcohol tolerance?

How long does it take for an intoxicated patron to totally absorb the alcohol they consume?

What activities help a patron "sober up?"