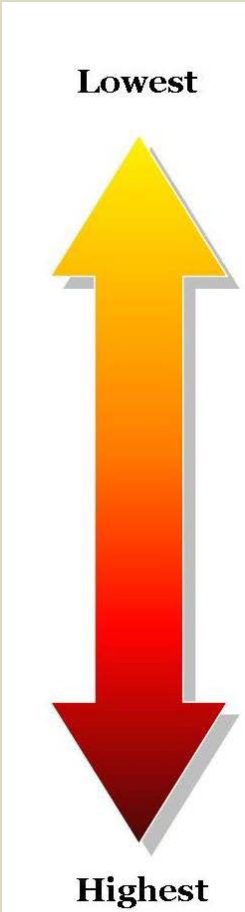
SACO Certification Course

Education

Why Do Marines Drink?

- To have a good time
- To celebrate
- To be social
- Because they enjoy it
- To forget problems
- To cheer up when in a bad mood
- Because it’s part of the culture

Effects of Alcohol Consumption



No loss of coordination. May experience slight buzz and loss of shyness.
May experience a buzz, feeling of well-being, relaxation, lowered inhibitions, sensation of warmth, minor impairment of reasoning and memory, and lowering of caution.
Legally intoxicated. May experience a buzz, slight impairment of balance, speech, vision, reaction time, and hearing. Also may experience reduced judgment and self-control. Definite impairment of muscle coordination and driving skills. Increased risk of nausea and slurred speech.
Clear deterioration of reaction time and control. May experience a significant impairment of motor coordination, loss of good judgment, slurred speech, impaired balance, vision, reaction time and hearing.
The buzz is reduced. Replaced with anxiety and restlessness. Gross motor impairment, lack of physical control, blurred vision, major loss of balance. Risk of blackouts and accidents.
Anxiety and restlessness predominate.
May experience anxiety and restlessness, total mental confusion. May need assistance walking. Nausea and vomiting often occur.
May experience loss of consciousness.
May experience onset of coma. Death possible due to respiratory arrest.

Blood Alcohol Content (BAC)

BLOOD ALCOHOL CONTENT (BAC)
Table for Male (M) / Female (F)

Number of Drinks		Body Weight in Pounds								Driving Condition
		100	120	140	160	180	200	220	240	
0	M	.00	.00	.00	.00	.00	.00	.00	.00	Only Safe Driving Limit
	F	.00	.00	.00	.00	.00	.00	.00	.00	
1	M	.06	.05	.04	.04	.03	.03	.03	.02	Driving Skills Impaired
	F	.07	.06	.05	.04	.04	.03	.03	.03	
2	M	.12	.10	.09	.07	.07	.06	.05	.05	
	F	.13	.11	.09	.08	.07	.07	.06	.06	
3	M	.18	.15	.13	.11	.10	.09	.08	.07	
	F	.20	.17	.14	.12	.11	.10	.09	.08	Legally Intoxicated
4	M	.24	.20	.17	.15	.13	.12	.11	.10	
	F	.26	.22	.19	.17	.15	.13	.12	.11	
5	M	.30	.25	.21	.19	.17	.15	.14	.12	
	F	.33	.28	.24	.21	.18	.17	.15	.14	

1 drink = 1.5 oz. 80 proof liquor, 12 oz. 5% beer, or 5 oz. 12% wine.

Factors that affect BAC

- Rate of alcohol consumption
- Amount of alcohol in drink
- Amount of food in stomach
- Type of mixer used
- Medication use
  - Prescription drugs
  - Over-the-counter medications
  - Nutritional supplements
- Genetics
- Certain medical conditions

Legal BAC Limits

- For operating a motor vehicle:
  - In all U.S. states: .08
  - For people under 21 years of age: often .01
  - On military installations: may be lower
  - OCONUS: may be lower
- While on duty:
  - .02 → educated and counseled by command leadership
  - .04 → referred to medical to determine fitness for duty and SACC for screening

Tolerance

- With use, the person no longer responds in the same way to a substance
  - It takes more of the substance to produce the same feeling of intoxication
- Tolerance affects
  - subjective feelings of intoxication
  - appearance of intoxication
- Tolerance does NOT affect
  - BAC
  - Effects of alcohol on some organs and systems

Standard Drinks

- Different drinks contain different amounts of alcohol
- To be able to compare drinks, the concept of a “standard drink” was developed
- A standard drink is defined as one containing 0.6 ounces of pure alcohol

Standard Drinks

- As a rule of thumb, a standard drink is often defined as:

Factors affecting amount of alcohol in a drink

1. The volume of alcoholic beverage in the drink (fluid ounces)
   - Known if drinking from a bottle or can
   - Otherwise can be difficult to estimate

2. The strength of the alcoholic beverage (% alcohol)
   - For beer and wine, this is given on the bottle
   - For hard liquor or liqueurs, divide proof by 2 to get percent alcohol (e.g., 100 proof → .50)

Exercise: Drink Size

1. Number the blank piece of paper that was passed out to you as directed by the course instructor
2. Estimate the number of fluid ounces in each of the glasses that are part of the demonstration, writing your estimate on your piece of paper.
3. When finished, return to your seat.

For reference purposes:

one cup = 8 oz.	a standard shot = 1.5 oz.
one pint = 16 oz.	a standard can of soda = 12 oz.
one quart = 32 oz.	a standard bottle of beer = 12 oz.

Drink Strength

The rule of thumb for standard drinks is :

12 oz.	Beer	.05
5 oz.	Wine	.12
1.5 oz.	Hard liquor	.40

This assumes that each type of alcoholic beverage contains a fixed percent alcohol.

But in reality, each type of alcoholic beverage can vary significantly in strength!

Exercise: Calculating Standard Drinks

- Determine number of fluid ounces (oz.) of alcoholic beverage in the drink
- Determine % alcohol
- Use the formula below

NUMBER OF STANDARD DRINKS =

$$\frac{(\text{\# fluid ounces}) \times (\text{\% alcohol})}{0.6}$$

Calculating Standard Drinks: Example 1

A pint of beer that is 8% alcohol.

How many standard drinks?

a) 1 pint = 16 oz
b) % alcohol: 8% = 0.08
c) Using the formula, (16 x .08)/0.6 = 2.13

NUMBER OF STANDARD DRINKS = $\frac{\text{(\# fluid ounces) x (\% alcohol)}}{0.6}$

Calculating Standard Drinks: Example 2

A 6 oz glass of wine that is 12% alcohol.

How many standard drinks?

a) 6 oz.

b) % alcohol: 12% = .12

c) Using the formula, (6 x .12)/0.6 = 1.4

NUMBER OF STANDARD DRINKS = $\frac{\text{(\# fluid ounces) x (\% alcohol)}}{0.6}$

Calculating Standard Drinks: Example 3

A double scotch on the rocks (90 proof)

How many standard drinks?

a) Assume 2 standard shots of 1.5 oz. each = 3 oz
b) % alcohol: 90/2 = 45%, therefore 0.45
c) Using the formula, (3 x .45) / 0.6 = 2.25

NUMBER OF STANDARD DRINKS = $\frac{\text{(\# fluid ounces) x (\% alcohol)}}{0.6}$

Calculating Standard Drinks: Example 4 (Challenge!)

A Long Island Iced Tea, made with:

- ½ oz. triple sec (50 proof)
- 1 oz. light rum (80 proof)
- 1 oz. gin (90 proof)
- 1 oz. vodka (80 proof)
- 1 oz. tequila (80 proof)
- 1-1/2 oz. sweet and sour mix
- A splash of cola

How many standard drinks?

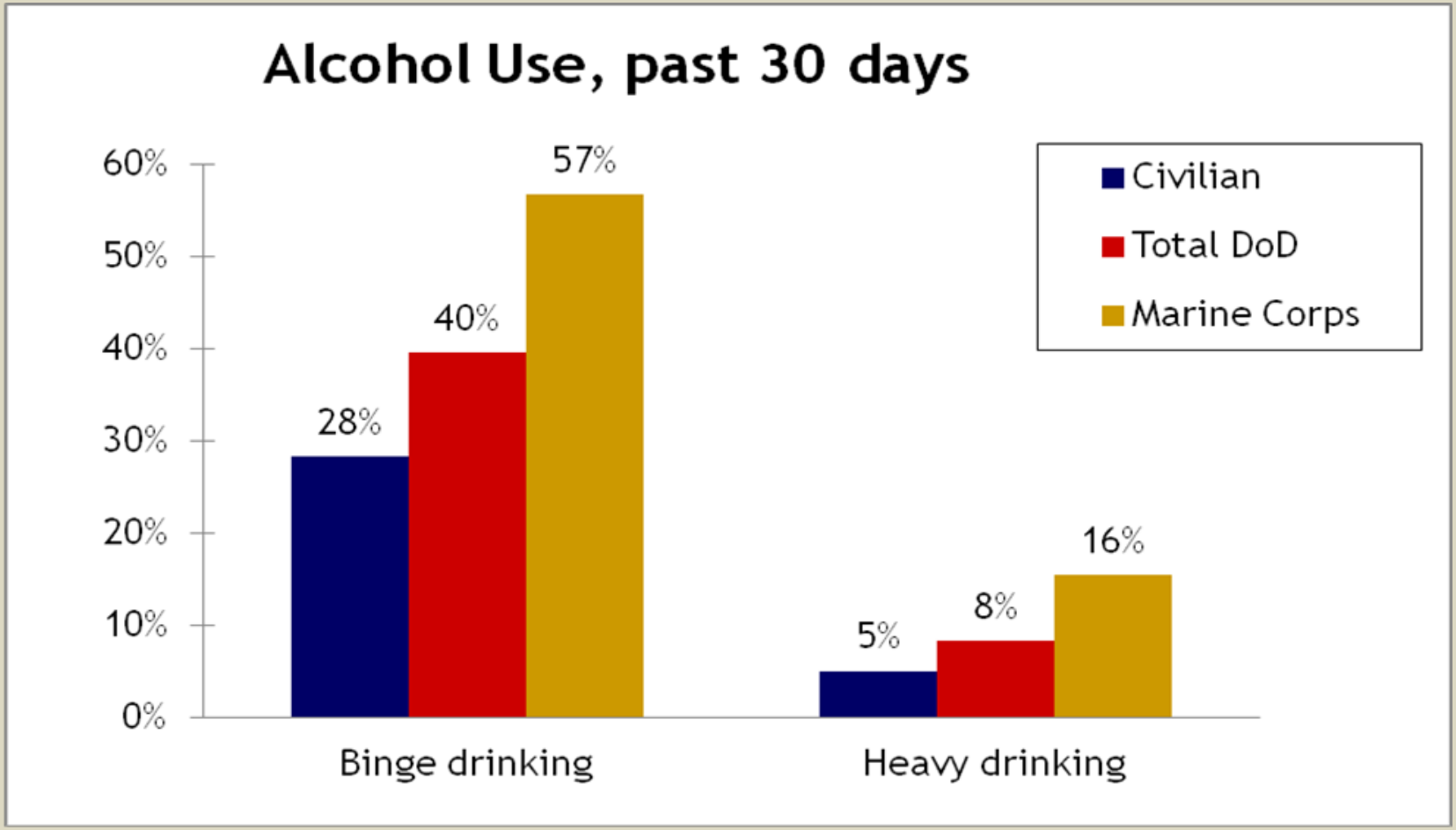
$$[0.5*(0.25) + 1*(0.4) + 1*(0.45) + 1*(0.4) + 1*(0.4)] / 0.6 = 2.96$$

NUMBER OF STANDARD DRINKS = $\frac{\text{(\# fluid ounces) x (\% alcohol)}}{0.6}$

Alcohol Misuse & Abuse Terminology

- Binge drinking
- Heavy drinking
- Problem drinking
- Alcohol abuse
- Alcohol dependence
- Alcohol use disorder (AUD)

Drinking in the Marine Corps



Risk Factors for Alcohol Problems

- Family history of problem drinking
- Family conflict
- Abused as a child
- Started drinking at an early age
- Low self-esteem
- Stress exposure (financial problems, problems at work, relationship problems, combat exposure, significant loss, etc.)
- Sleep problems
- Mental health problems (PTSD, depression)

Signs of Alcohol Poisoning

- Mental confusion, stupor, coma, or inability to wake up
- Vomiting
- Seizures
- Slow breathing (fewer than 8 breaths per minute)
- Irregular breathing (10 seconds or more between breaths)
- Hypothermia (low body temperature), bluish skin color, paleness

Possible Results If Alcohol Poisoning Goes Untreated

- Choking on one's own vomit
- Breathing that slows, becomes irregular, or stops
- Heart that beats irregularly or stops
- Hypothermia (low body temperature)
- Hypoglycemia (too little blood sugar), which leads to seizures
- Untreated severe dehydration from vomiting, which can cause seizures, permanent brain damage, and death

What To Do
If Alcohol Poisoning Is Suspected

- Know the danger signs
- Do not wait for someone to have all the symptoms
- Be aware that a person who has passed out may die
- If you suspect an alcohol overdose, call 911 for help

Negative Consequences: Short-term

- Motor vehicle accidents
- Sexually transmitted infections (STIs)
- Unintended pregnancy
- Sexual assault
- Intimate partner violence
- Aggressive encounters
- Child abuse & neglect
- Deliberate self-harm or suicidal behavior
- Physical injury
- Legal problems (e.g., DUI)
- Interpersonal problems
- Missing work or performing poorly at work

Negative Consequences: Long-term

- Interpersonal problems
- Financial problems
- Work problems
- Legal problems

- High blood pressure
- Obesity
- Heart problems
- Stroke
- Cancers
- Liver problems

Making Good Choices – The PFL Model

Number of Drinks Consumed per Day in a Typical Week	Associated Risks
0 per day	No alcohol-related problems Longer lifespan than people drinking 3 or more
Up to 1-2 per day	Does not increase risks for most people Longer lifespan than abstainers and people drinking 3 or more
More than 2 per day	Health problems are common Shorter average lifespan
More than 3 on any day	Higher rates of health and impairment problems; the higher the quantity and frequency the greater the risk

Is Some Drinking Good for You?

- Some research has shown that people who drink moderately have:
  - Reduced risk of heart disease
  - Reduced risk of dying of heart attack
  - Lowered risk of gallstones
  - Possibly reduced risk of strokes
  - Possibly reduced risk of diabetes
- Evidence does not show a causal relationship

This applies only to moderate drinking!

≤ 2 drinks/day for men *≤ 1 drink/day for women*

Planning Ahead to Reduce High-Risk Drinking

- Use Operational Risk Management (ORM) techniques
  - Accept no unnecessary risk
  - Anticipate and manage risks by planning
  - Accept risk when benefits outweigh the costs
  - Make risk decisions at the risk level
- Consider your own safety and wellbeing, and that of those around you

Risk-Reduction Strategies

- Set limits
- Count drinks
- Space drinks
- Alternate nonalcoholic beverages
- Choose quality over quantity
- Learn refusal skills
- Be a designated nondrinker
- Avoid drinking games
- Have a signal
- Eat before drinking
- Don’t drink when emotional

Substance Use Prohibited by MCO 5300.17

- Use of illegal substances
- Use of legal substances “to induce intoxication, excitement, or stupefaction of the central nervous system”
  - Prescription medication used for other than its intended purpose
  - Synthetic or designer drugs
  - Other substances (e.g., over-the-counter medications, inhalants, propellants)

Illegal Drugs

- Substances that a person is prohibited by law from possessing, using, or distributing.
- Federal and military law trump state and local laws.

Prescription Drugs

Legal Use	Illegal Use
As directed	In a way other than as directed
By person to whom prescribed	By someone other than prescribed user
For prescribed purpose	For purpose other than the one for which it was prescribed

Use is illegal if it has ANY characteristic of illegal use.

Drug Use: Marines vs. Civilians

In the past 30 days …	Marines	Civilians
Illegal Drug Use	3.2%	12.7%
Prescription Drug Misuse	11.5%	4.4%

(HRB, 2008)

Note. Comparison civilians are demographically similar to Marines (e.g., age, gender).

Synthetic or Designer Drugs

- Newly developed chemicals and drugs that create intoxication, often mimicking the effects of illegal substances:
  - Spice (mimics marijuana)
  - Bath Salts (mimics cocaine or amphetamines)
- Initially not illegal or detectable by drug tests
- Use prohibited by MCO 5300.17

Other Substances

- Substances that are not deemed illegal by the U.S. Government or the Marine Corps but are used to become intoxicated or high.
- Examples include:
  - Inhalants such as paint thinner or gasoline
  - Over-the-counter (OTC) drugs like cold medicine or cough syrup

Effects of Prohibited Substance Use Among Marines

- Poor decisions and risky behavior
- Physical and mental health problems
- Social, occupational, legal, and financial problems
- Vary by type of substance used

Possible Signs of Prohibited Substance Use

- Appearance of being high
- Possession of drugs, other substances, paraphernalia
- Deterioration of personal appearance, military bearing, performance
- Problems with coworkers, friends, or family
- Changes in appetite, weight, sleep patterns
- Changes in behavior or personality
- Diminished short-term memory; forgetfulness
- Lack of focus or motivation
- Sudden change in friends, favorite hangouts, hobbies

Substance Abuse Education

- SACOs must ensure that unit substance abuse education is provided at least annually
- SACOs should work with the DDRC, A&SAPS, SACC, and CO to ensure that education provided addresses the prevention needs of the unit
- Education planning includes decisions about:
  - Topic
  - Format
  - Educator
  - Target audience

Education Topics

- Consider:
  - What substance issues are the biggest local problems?
  - What information would be most useful and relevant to my Marines?
- Potential sources of information
  - Requirements of relevant Marine Corps Orders
  - Advice of prevention partners
  - Preferences of command leadership
  - Results of needs assessments
  - Other information

Education Format

- Lecture
- Film
- Small group discussions
- Use of technologies (e.g., educational apps)
- Role playing or skits
- Knowledge-based games
- Others?

Educator

- Expertise in the subject matter
- Credibility
- Speaking skill
- Availability

The qualities needed in the educator will depend, to some degree, on the format to be used.

Target Audience

- Which Marines would benefit from this information?
- Remember that education can be:
  - Universal prevention (same for all)
  - Selected prevention (different for specific subpopulations)

Assessing Education

Consumer satisfaction

- Did the Marines find the education session useful, informative, helpful?

Evidence of benefits

- Did the Marines learn what was being taught?

- Consider collecting ANONYMOUS evaluations from Marines who attend each session.
- This information can be used to improve future education efforts.

Questions?