APPLE Training Institute
Faculty & Staff

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Educational Partners

- NCAA Division II
- Make It Yours
- University of Virginia
- TEAM
- Drug Free Sport
- UNCG Institute to Promote Athlete Health and Wellness
APPLE Goals

Prevent alcohol, tobacco and other drug (ATOD) abuse through

- Education
- Empowerment
- Supporting teams
Student-Athlete Substance Use
Compared to all college students, DII student-athletes are LESS likely to use...

Percentage of DII Athletes who did NOT use in the past year...

- Marijuana: 80%
- Spit Tobacco: 84%
- Cigarettes: 89%
- Synthetic Marijuana: 98%
- Cocaine: 99%
Compared to all college students, DII student-athletes are **EQUALLY** likely to use...

*(in past 12 months):*

**Alcohol**

*(21% did not use in past year)*

Sources: 2013 NCAA National Study of Substance Use Habits of College Student-Athletes & 2012 Monitoring the Future Survey
Heavy drinking is down significantly among all student-athletes.

Excessive Drinking Trend
(4+ Drinks/ 5+ Drinks)

2005: 63% Men, 41% Women
2009: 50% Men, 38% Women
2013: 44% Men, 33% Women

2013 NCAA National Study of Substance Use Habits of College Student-Athletes
Which DII WOMEN’s sports have the lowest rates of alcohol use in the past 12 months?

3. Basketball (21% didn’t use)
2. Swimming (21% didn’t use)
1. Track (30% didn’t use)
Which DII MEN’s sports have the lowest rates of alcohol use in the past 12 months?

3. Tennis (22% didn’t use)
2. Basketball (28% didn’t use)
1. Track (41% didn’t use)
Compared to other students, student-athletes who drink...

- Consume more alcohol
- Drink more frequently
- Have more negative consequences including
  - Driving under the influence
  - Unsafe sexual behaviors
  - Criminal offenses

Student- Athlete Negative Consequences in Past 12 Months

- 63% had a hangover
- 51% were nauseated or vomited at least once
- 30% had a memory loss (black out)
- 30% did something they later regretted
- 23% got into a fight/argument at least once
Student-Athletes (all divisions) Who NEVER Use in Competition Season

- **Alcohol**: 50.1%
  - Includes 19.3% who don’t drink at all

- **Marijuana**: 90.9%
  - Includes 71.8% who don’t use at all

2013 NCAA National Study of Substance Use Habits of College Student-Athletes
Student-Athlete Use of Marijuana
(All Divisions)

% of SA

- Never use: 71.8%
- Only use out of season: 19.1%
- Use in & out of season: 8.5%
- Only use in season: 0.6%

2013 NCAA National Study of Substance Use Habits of College Student-Athletes
Top Reasons Student-Athletes Don’t Drink

1. No desire to experience effects
2. Don’t want to hurt athletic performance
3. Against beliefs/values
4. Concerned what it might do to health
Most student-athletes’ alcohol use does NOT interfere with their sport

- 94.3% didn’t show up late or miss a practice or game.
- 84.0% didn’t perform poorly in a practice or game.

2013 NCAA National Study of Substance Use Habits of College Student-Athletes
“Alcohol and other drug use can be the difference between a winning and a losing season.”

In your groups, discuss how much you personally agree or disagree with this statement.

What are the reasons you believe this is/is not true?
NCAA Resources

THE HANGOVER

HANGOVER FREQUENCY

15.3% 10+ times
7.4% 6-9 times
14.8% 3-5 times
11.5% Twice
14.3% Once
36.7% Never

EFFECTS OF A HANGOVER

- Increased heart rate
- Decreased left ventricular performance
- Increased blood pressure
- Decreased endurance performance
- Dehydration

2013 NCAA National Study of Substance Use Habits of College Student-Athletes
Alcohol Decreases Aerobic Performance

↓ blood flow to muscles/organs

↓ energy/fuel available for muscles to perform
Alcohol Dehydrates

Up to 3% body weight loss within 4 hours of drinking

- ↑ fluid loss
- ↓ Temperature tolerance
- ↔ Reverses heat acclimation training
- ↑ chances of heat cramps, exhaustion and stroke

Berning, J. (1996)
Shirreffs & Maughan (2006)
How many **cups** of water may an athlete need to rehydrate after 5 standard alcoholic drinks?

17


Athletes and Rehydration

- 12+ cups of fluid/day.

- 1 alcoholic drink requires at least 1 cup of fluid

- 5 alcoholic drinks requires 17+ cups of fluid

Alcohol Impairs Motor Skills

- Decreases strength, power and sprint performance for up to three days (72 hours)
- Decreases HGH secretion by up to 70%
- Reaction time can be affected up to 12 hours after drinking

Kuhn, Swartzwelder & Wilson (2000) *Pumped: Straight facts for athletes about drugs, supplements and training*

American Athletic Institute: [www.americanathleticinstitute.org](http://www.americanathleticinstitute.org)
Alcohol Affects Body Composition

- Increased body fat
- Is often mixed with high-calorie drinks and high-calorie foods

→ Overall weight gain
Inhibits Absorption of Key Nutrients

Needed for:

- Converting food into fuel
- Healthy red blood and nerve cells
- Making new oxygen-carrying cells
- Energy metabolism and endurance

Firth & Manzo, For the Athlete: Alcohol & Athletic Performance (2004)
Low Blood Sugar

27% of student-athletes report to practice with low blood glucose levels (not all due to alcohol use)

Why?
Body spends energy metabolizing alcohol, not making more glucose.

So what?
Can lead to severe hypoglycemia 6 to 36 hours after heavy drinking.
Alcohol Increases Risk of Illness

Depresses immune function

Athletes who drink get sick more often.

American Athletic Institute: www.americanathleticinstitute.org
Alcohol Slows Recovery

- Delays muscle repair
- Drinking alcohol after competition hinders recovery
- Risk of injury is doubled
  - Injury rate for drinkers 54.8%
  - Injury rate for non-drinkers 23.5%

American Athletic Institute: www.americanathleticinstitute.org
Alcohol Slows Recovery

#1 Day of the Week for Injuries?

Monday

American Athletic Institute: www.americanathleticinstitute.org
Alcohol Disrupts Sleep & Learning
(if used up to 6 hours before sleep)

- Reduces time spent in deep, restful sleep.
- Impedes memory formation
- Disrupts muscle repair

How well can game plans be learned?

Getting drunk 1 time can negate up to how many days of training effects?

14

Due to lost physiological conditioning including:
- Heart rate
- Ventilation
- Muscle enzymes
Alcohol and Performance Potential

The lingering effects of alcohol hangovers reduces athletic performance by up to 11.4% in elite athletes (e.g., national teams).

Impacts are higher for college student-athletes.

Source: American Athletic Institute: www.americanathleticsinstitute.org
“The Hangover Effect Or Disturbed Recovery Process”
What Is Acceptable Performance?

- Full Capacity - 100%
- Acceptable performance 90%
- 88.6% = Reduced Capacity

Is 80% Capacity Acceptable?

Source: American Athletic Institute: www.americanathleticsinstitute.org
“The Hangover Effect Or Disturbed Recovery Process”
Alcohol and Team Success

Abstaining from alcohol use in season can increase the likelihood of having a successful season.

What would a 15% performance INCREASE look like for your team?

For your individual performance?
All-American Football 4-2

10-2

5-1

PTS 160
Opp 133
Rush 1158
Opp. 854
Pass 1443
Opp. 1001

15% increase

184
113
1331
725
1659
850

Source: American Athletic Institute: www.americanathleticinstitute.org
28–27

NCAAS

Softball 24–31

Six 1 Run Losses

Source: American Athletic Institute: www.americanathleticinstitute.org
Test your knowledge!

Kahoot.it

Enter the game pin, then a nickname

Get your phone, tablet or laptop out now!
Enter the answer on your device by matching color/shape.

Accuracy AND speed count!

Kahoot.it