The APPLE Model

The Core of a Healthy Athletics Department

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APPLE Conference Staff
Goal

- educate
- empower &
- support teams

in preventing alcohol, tobacco and other drug (ATOD) use/abuse
Student-Athlete Substance Use
Compared to all students, student-athletes are LESS likely to have EVER USED

- Cocaine (96.8% of SA have never used)
- Cigarettes (83.5% of SA have never used)
- Marijuana (67.1% of SA have never used)

Data sources: 2013 NCAA Substance Use Survey & 2013 National College Health Assessment
Compared to all students, student-athletes are as likely to have EVER USED

- Amphetamines (94% of SA have never used)
- Anabolic Steroids (99% of SA have never used)

Data sources: 2013 NCAA Substance Use Survey & 2013 National College Health Assessment
Compared to all students, student-athletes are MORE likely to have EVER USED:

- Alcohol (14.8% of SA have never used)
- Spit Tobacco (79.6% of SA have never used)

Data sources: 2013 NCAA Substance Use Survey & 2013 National College Health Assessment
Which men’s sports have the highest rates of LIFETIME alcohol/drug use?

Alcohol = 96.8%
Spit Tobacco = 49.4%
Ephedrine = 49.4%
Marijuana = 46.3%
Cigarettes = 24.5%

Data source: 2013 NCAA Substance Use Survey
Which WOMEN’s sports have the highest rates of LIFETIME alcohol/drug use?

- Alcohol = 95.2%
- Marijuana = 21.2%
- Ephedrine = 21.2%
- Cigarettes = 16.7%

Data source: 2013 NCAA Substance Use Survey
How does DII compare to other NCAA divisions in past year ALCOHOL use?

2013 NCAA National Study of Substance Use Habits of College Student-Athletes
How does DII compare to other NCAA divisions in past year MARIJUANA use?

2013 NCAA National Study of Substance Use Habits of College Student-Athletes
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

Get drunk on your birthday they said...

will be fun they said...
Student-Athletes who NEVER use in Competition Season

Data source: 2013 NCAA Substance Use Survey
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.

Source: 2013 NCAA Substance Use Survey
Alcohol & Athletic Performance
Firth & Manzo “For the Athlete: Alcohol and Athletic Performance”
Alcohol Decreases Aerobic Performance

- Alcohol use **24 hours before athletic activity** significantly reduces aerobic performance.
  - Impairs temperature regulation & accelerates fatigue
  - Alcohol is a diuretic

Volpe (2010)
How many cups of water may an athlete need to rehydrate after drinking 5 alcoholic drinks?

Athletes and Rehydration

- Athletes can require **12+ cups of fluid/day**.

- Replace each alcoholic drink with at least 1 cup of fluid.

- After 5 drinks, an athlete’s body may need **17+ cups of fluid** for proper hydration.

Impairs motor skills

decreases strength, power and sprint performance for up to three days (72 hours)
Negatively Affects Body Composition

- can lead to **increased body fat** due to ethanol storage as fat.
- often mixed with **high-calorie drinks** (sodas, juices) & accompanied by **high calorie foods**
- → **overall weight gain**
Increases Risk for Nutrient Deficiencies

Decreases vitamin and mineral absorption

Nutrients used to clear alcohol out of the system leave fewer nutrients for normal function
Increases Risk of Illness & Injury

Depresses immune function

Athletes who drink get sick more often.

American Athletic Institute: www.americanathleticinstitute.org
Slows Recovery

- Delays muscle repair
- Weekly alcohol consumption doubles the rate of injury.
  - Injury rate for drinkers 54.8%
  - Injury rate for non-drinkers 23.5%

#1 Day for Injuries? Monday

American Athletic Institute: www.americanathleticinstitute.org

Disrupts Sleep & Learning

- Drinking **up to 6 hours before bed** reduces time spent in deep, restful sleep.
- Much of **memory formation** happens during sleep.

*How well can game plans be learned?*

Kuhn, Swartzwelder & Wilson (2000)
*Pumped: Straight facts for athletes about drugs, supplements and training*
Getting drunk 1 time can lose how many days of training effects?

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American Athletic Institute: www.americanathleticinstitute.org
Alcohol and Performance Potential

The lingering effects of alcohol reduce performance potential by up to **11.4%** in elite athletes (national team) and by even more in other athletes.

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

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

Source: American Athletic Institute: [www.americanathleticinstitute.org](http://www.americanathleticinstitute.org)  
“The Hangover Effect Or Disturbed Recovery Process”
Alcohol and Team Success

- Abstaining from alcohol use in season increases the likelihood of having a successful season.
- What would a 15% performance INCREASE look like for your team?
- For your individual performance?

Keller (2013)
10-2 All-American Football 4-2
5-1

PTS 160
Opp 133
Rush 1158
Opp. 854
Pass 1443
Opp. 1001
184
113
1331
725
1659
850

Source: American Athletic Institute: www.americanathleticinstitute.org
### Softball 24-31 vs. NCAAS 28-27

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**Six 1 Run Losses**

Source: American Athletic Institute:  www.americanathleticinstitute.org
The Seven “Slices”

- Recruitment
- Expectations & Attitudes
- Policies
- Drug Testing
- Sanctioning
- Referral & Counseling
- Education
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