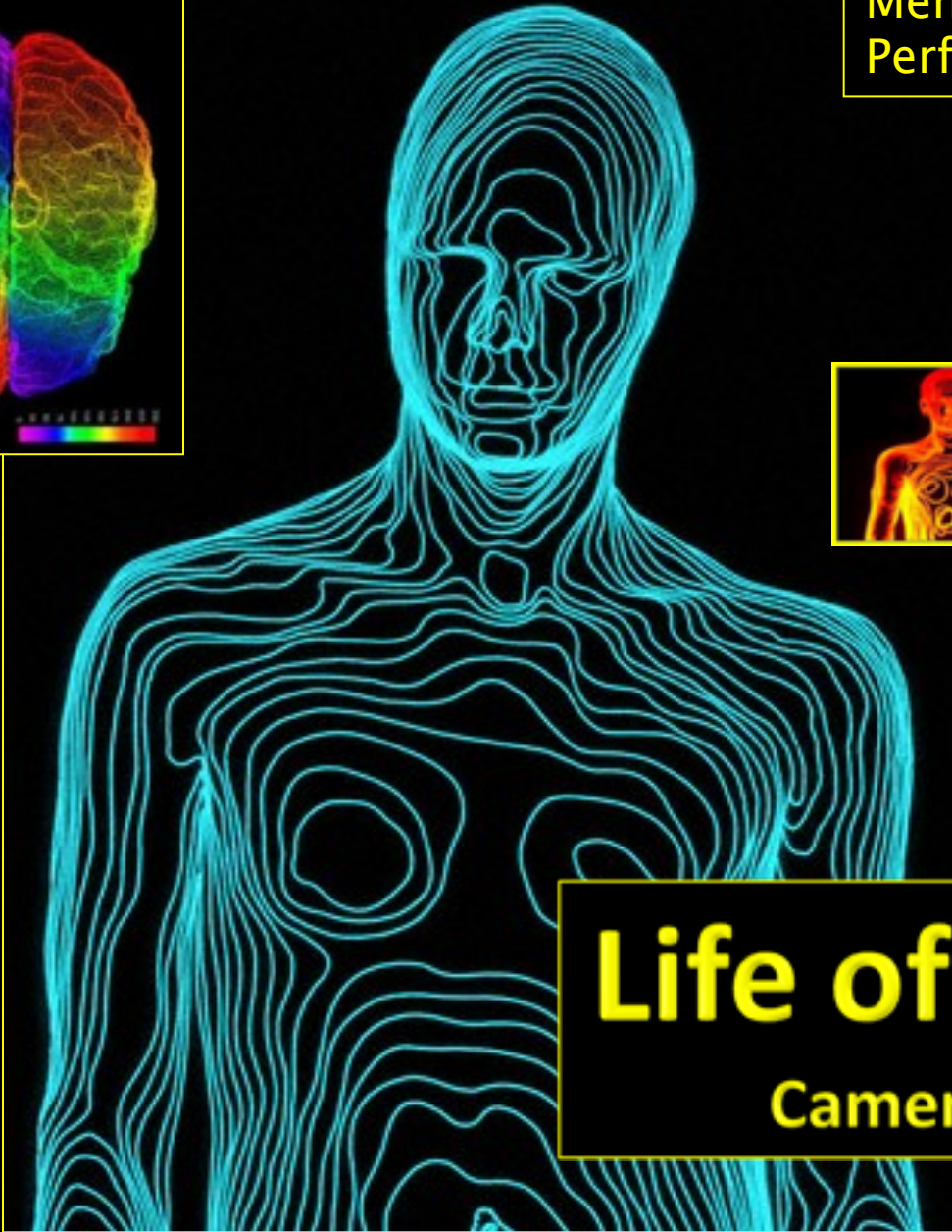
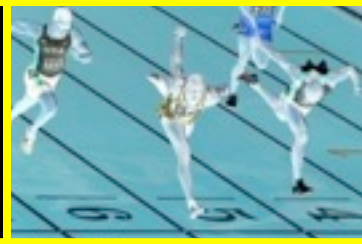


Mental and Physical
Performance



Life of an Athlete

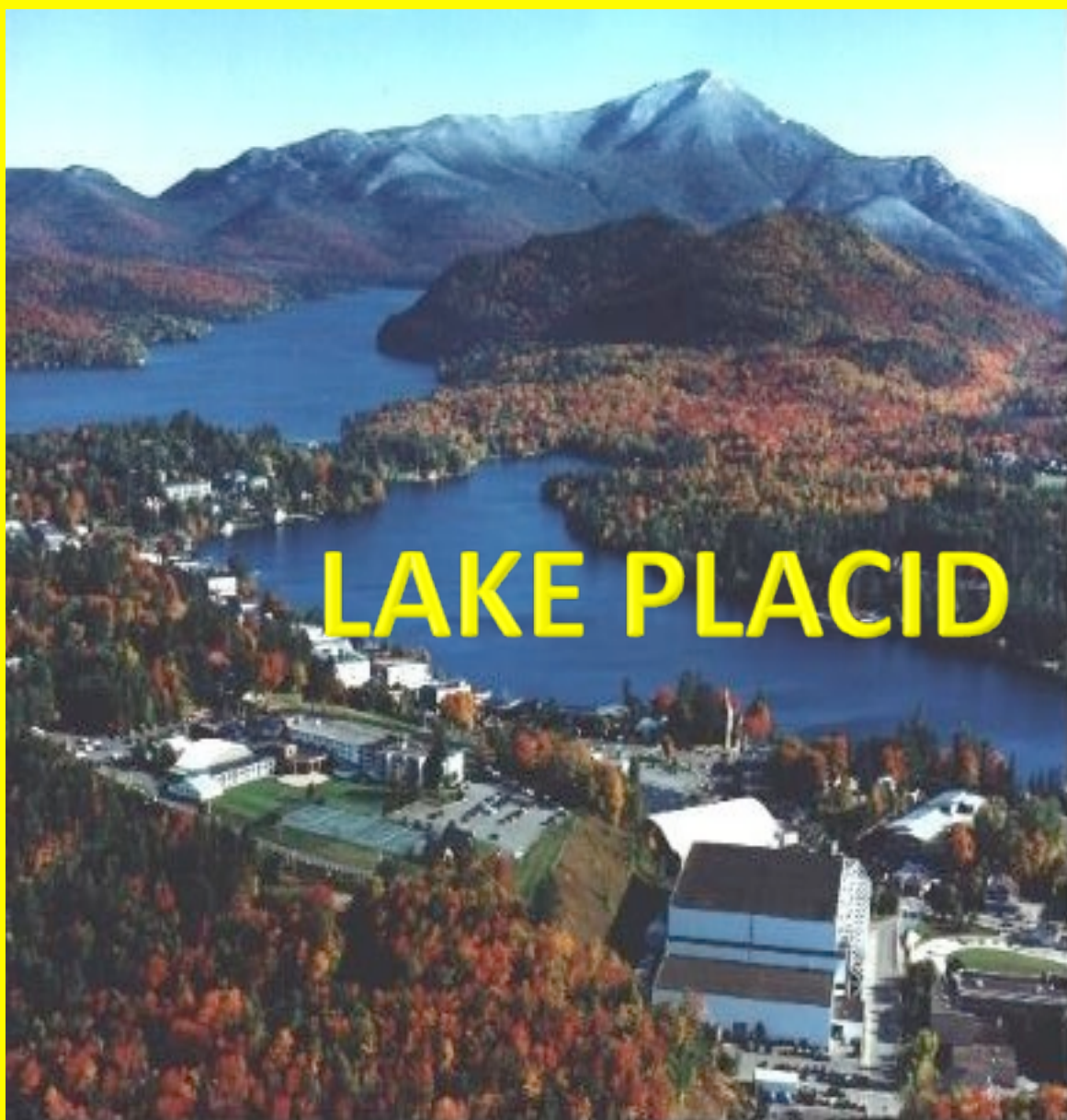
Cameron High School



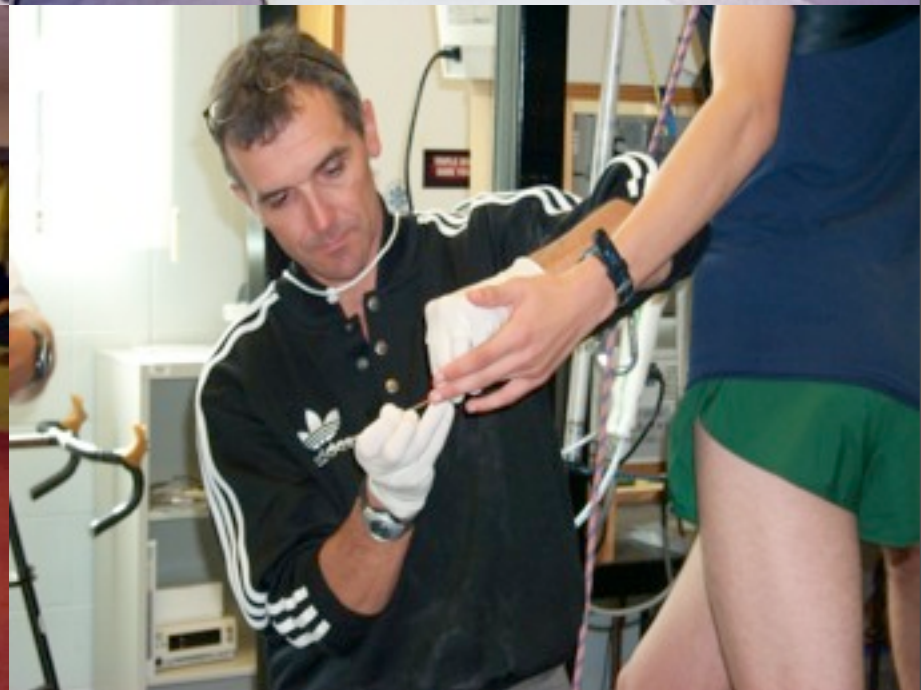
PRESENTER JOHN UNDERWOOD

A former NCAA All-American, International-level distance runner and World Masters Champion, John has coached or advised more than two dozen Olympians including World and Olympic Champions. He holds three International Olympic Solidarity diplomas for coaching and has been a crusader for drug-free sport at all levels. John's innovative program "PURE PERFORMANCE", has gained international prominence. He is the Chemical Health Consultant for the New York Public High School Athletic Association drug prevention program. He has conducted the only physiological case study, of the residual effect of alcohol on elite athletic performance. John recently spoke at the Department of Justice's National Leadership Conference. He has appeared as a guest commentator for ABC Wide World of Sports for Olympic Drug Scandals. John has worked with nearly all sport





1932
1980
USOTC



Tuesday, July 31, 12

14,000 TESTS

20 YEARS



John Underwood has conducted nearly 14,000 physiological tests over the past 20 years on elite athletes.

The following slides reflect his efforts to deter drug use by athletes.





NAVY SEALS

Human Performance Project



joe-ks.com

Tuesday, July 31, 12



Life of an

It is not just that you put on uniform, or show up every day at practice or for the games...

You are an athlete all the time, on and off the field.

You represent your family, your community, your school, your teammates, your coach and **YOURSELF.**



Life of an

The American Athletic Institute began an initiative in the year 2000 to impact the use lifestyle of athletes at all levels of sport. The Life of an Athlete© program has been utilized in 39 states and by thousands of school districts. The program has been presented at the Office of Juvenile Justice National Leadership Conference for the past eight years. This promising prevention/intervention program focuses on all stakeholders in a community to help create a vigilant approach to insure programs of excellence and reduce drug use by athletes.

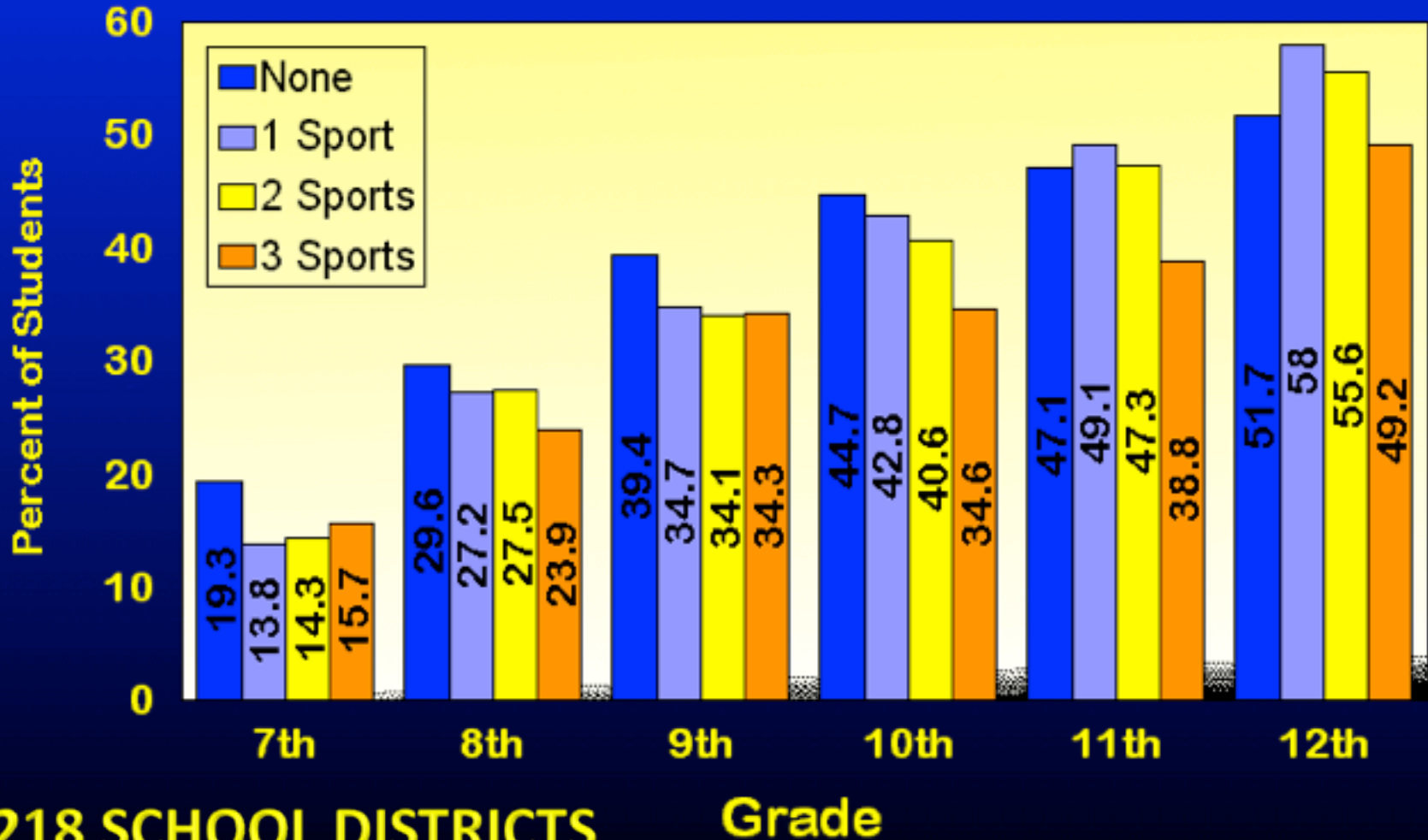


The Problem

Tuesday, July 31, 12

Monthly Alcohol Use

Percent of Students Reporting Alcohol Use in the Past Month



218 SCHOOL DISTRICTS

69000 STUDENTS

Grade



58% ALCOHOL
20% MARIJUANA

HIGH SCHOOL

**Athletes remain one of
the highest "at risk"
groups for drug use
and abuse.**



Nearly 60% of H.S. Athletes use alcohol

Do you know what alcohol is doing to your athlete's potential?
Time to educate your Athletes, Coaches, Parents...

The American Athletic Institute has conducted scientific studies on the effects of social drug use on elite athletic performance. Our program clearly connects use and reduced performance. Social drug use continues to be the catalyst for nearly all negative behaviors in the high school athlete population. That is why thousands of athletic programs have utilized our services in the past five years. Our message can impact your athletes, coaches and the success of your upcoming season. Be proactive...





OPTIMAL

**The single most significant factor
in optimal athletic performance is
CNS readiness...**



What do we know?

Your brain runs your body

**Mess with your brain
Mess with your body**



CNS READINESS

Don't waste your effort

ADAPT

TRAIN

RECOVER





The 12 Hour Window



American Athletic Institute

The majority of training effect takes place within twelve hours after training, beginning with the recovery phase, the most pivotal aspect for gains...

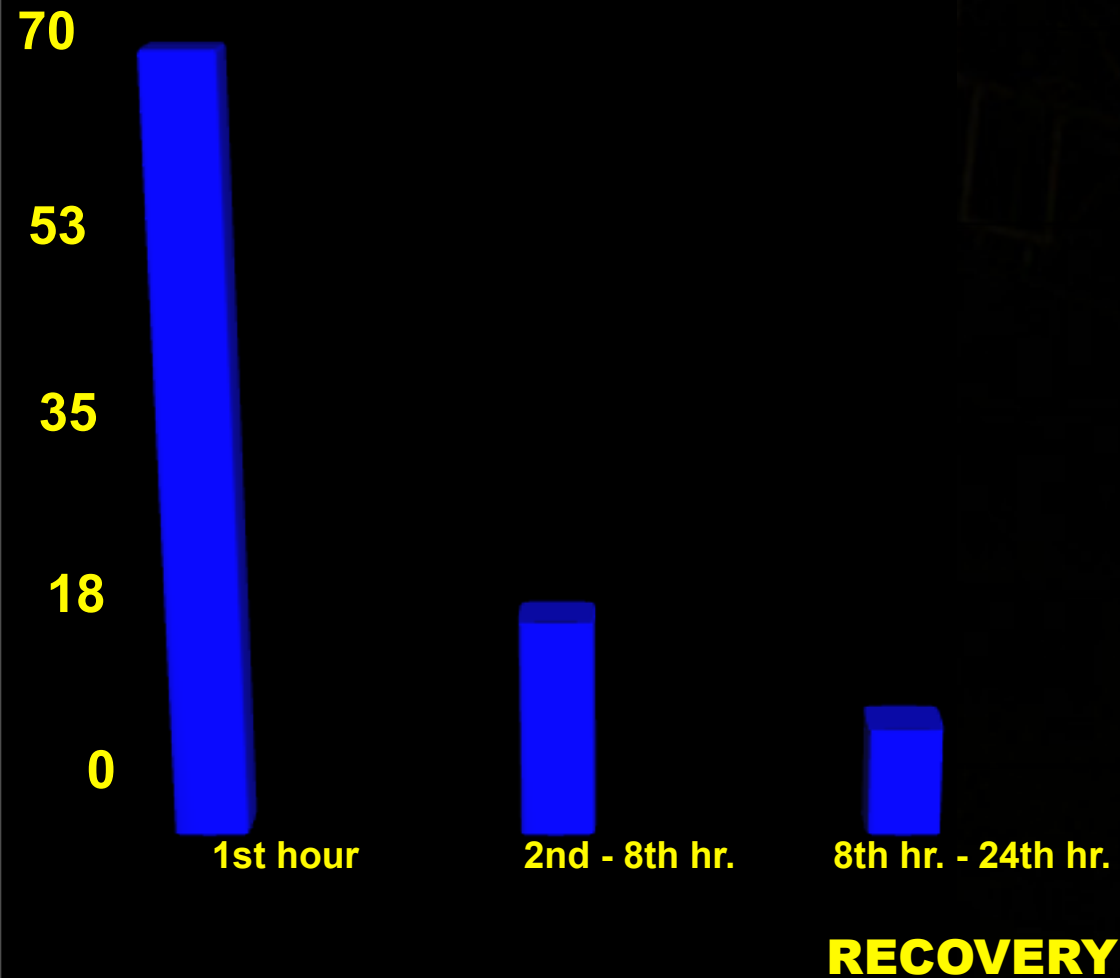
**Think about
what you are doing**

Alcohol after Training?



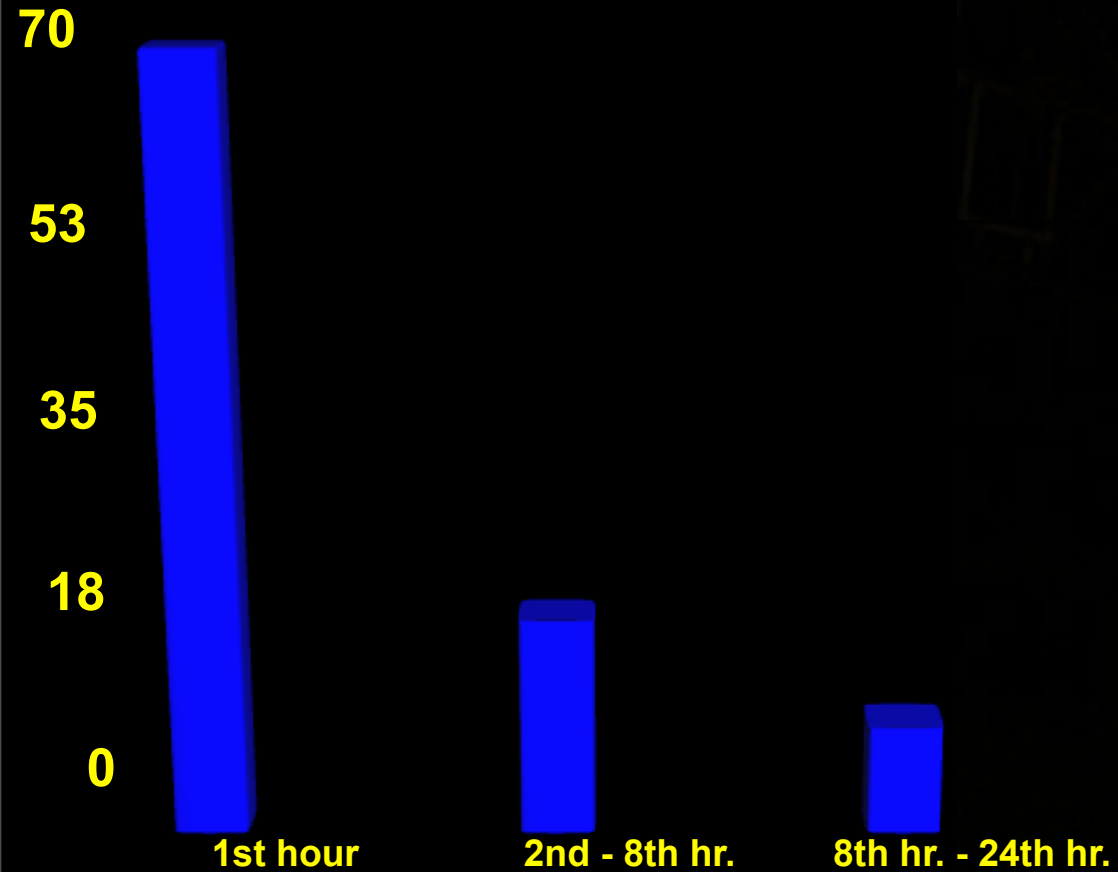
RECOVERY

Alcohol after Training?



Alcohol after Training?

70%

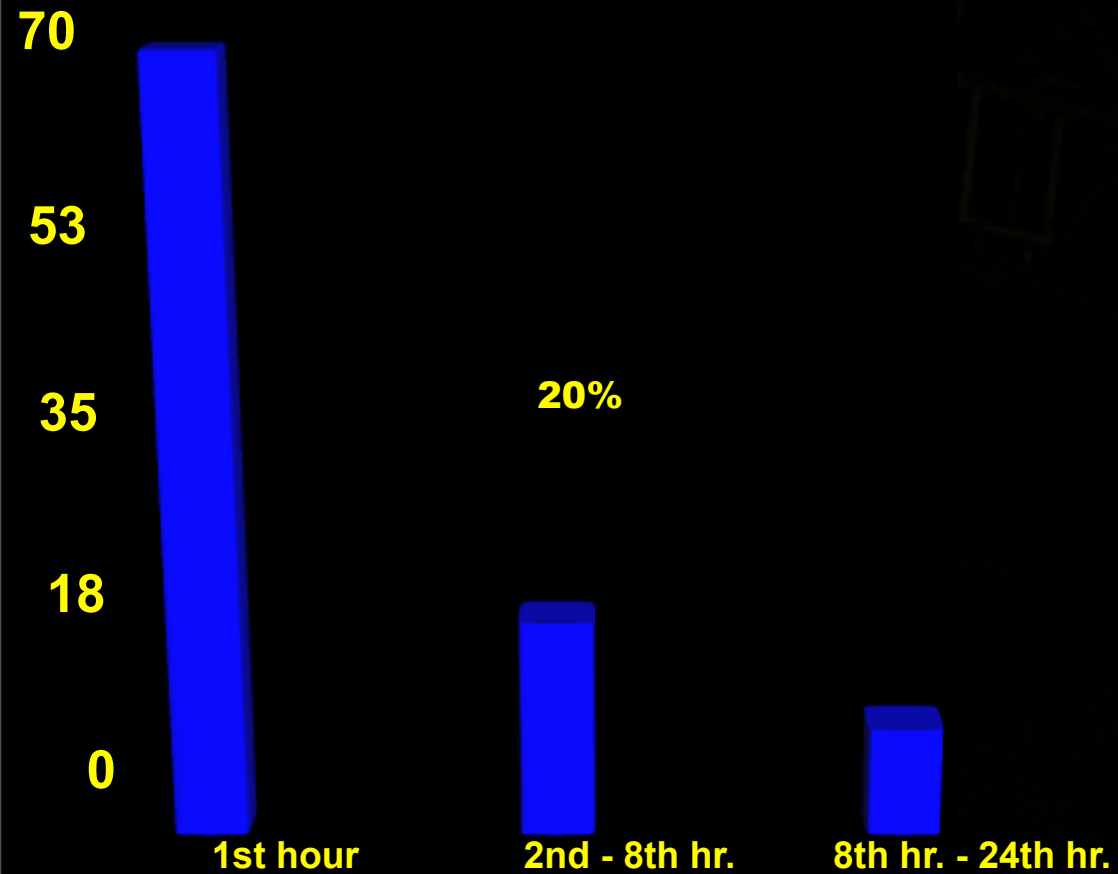


RECOVERY



Alcohol after Training?

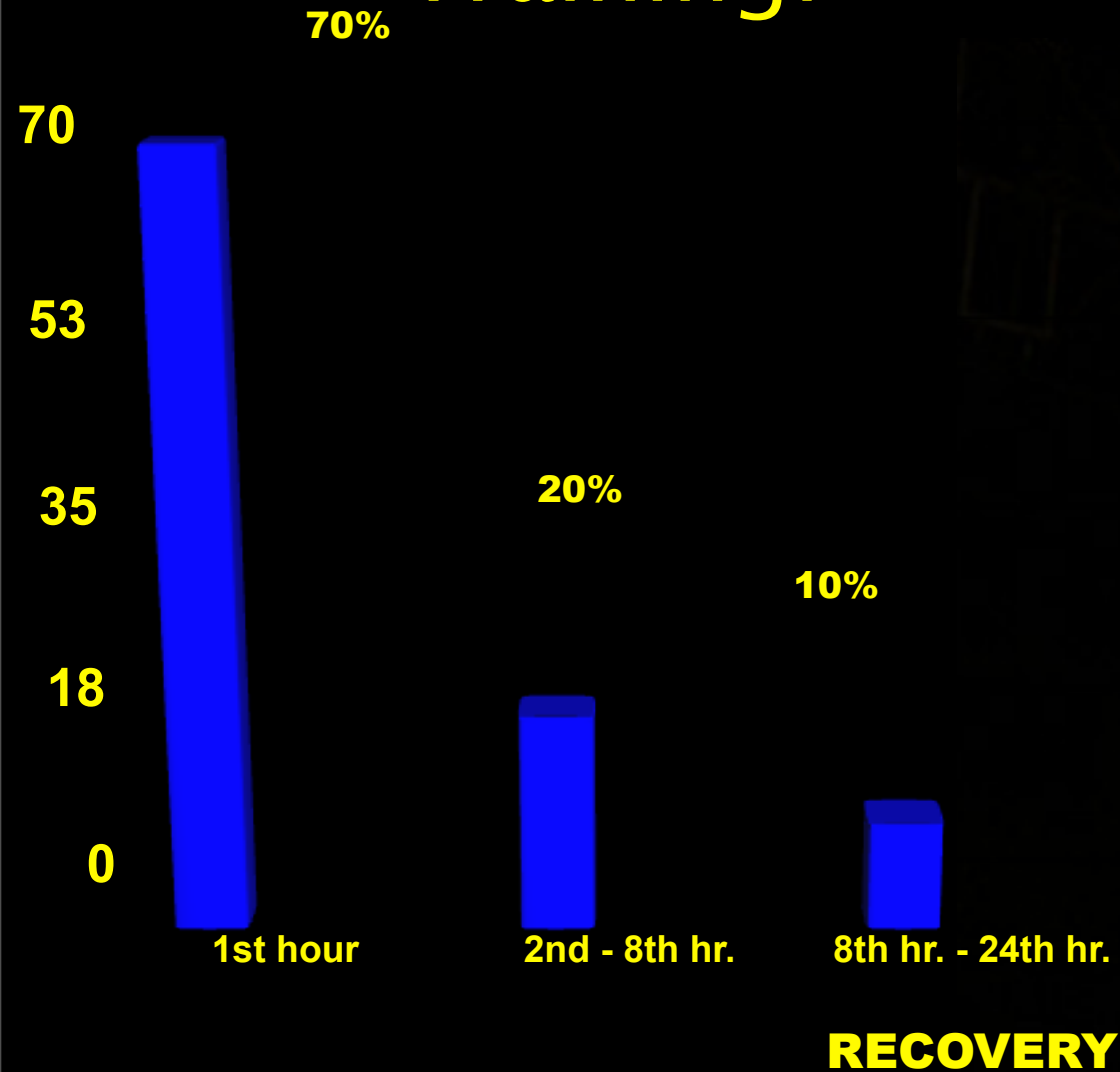
70%



RECOVERY



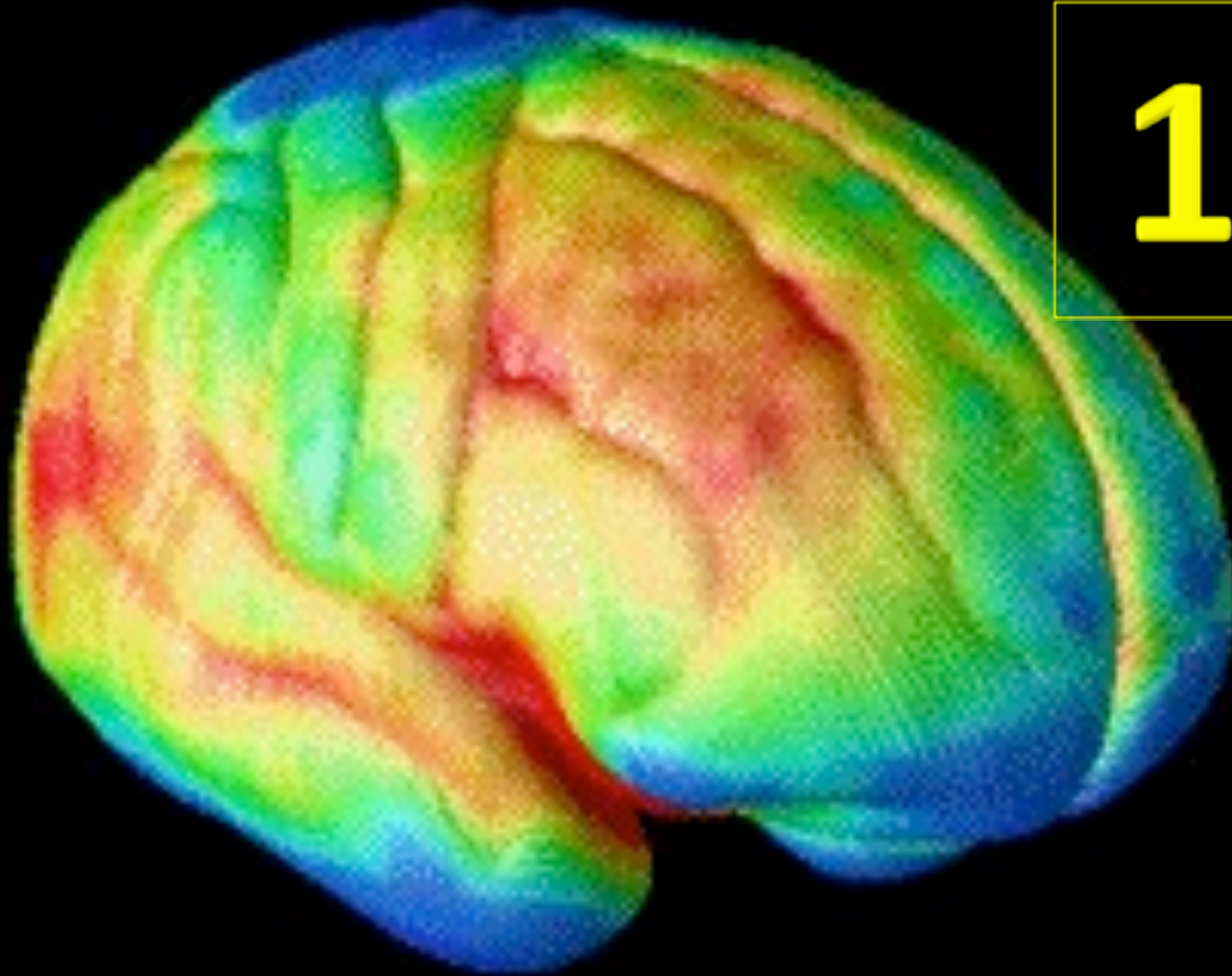
Alcohol after Training?



BRAIN SCIENCE



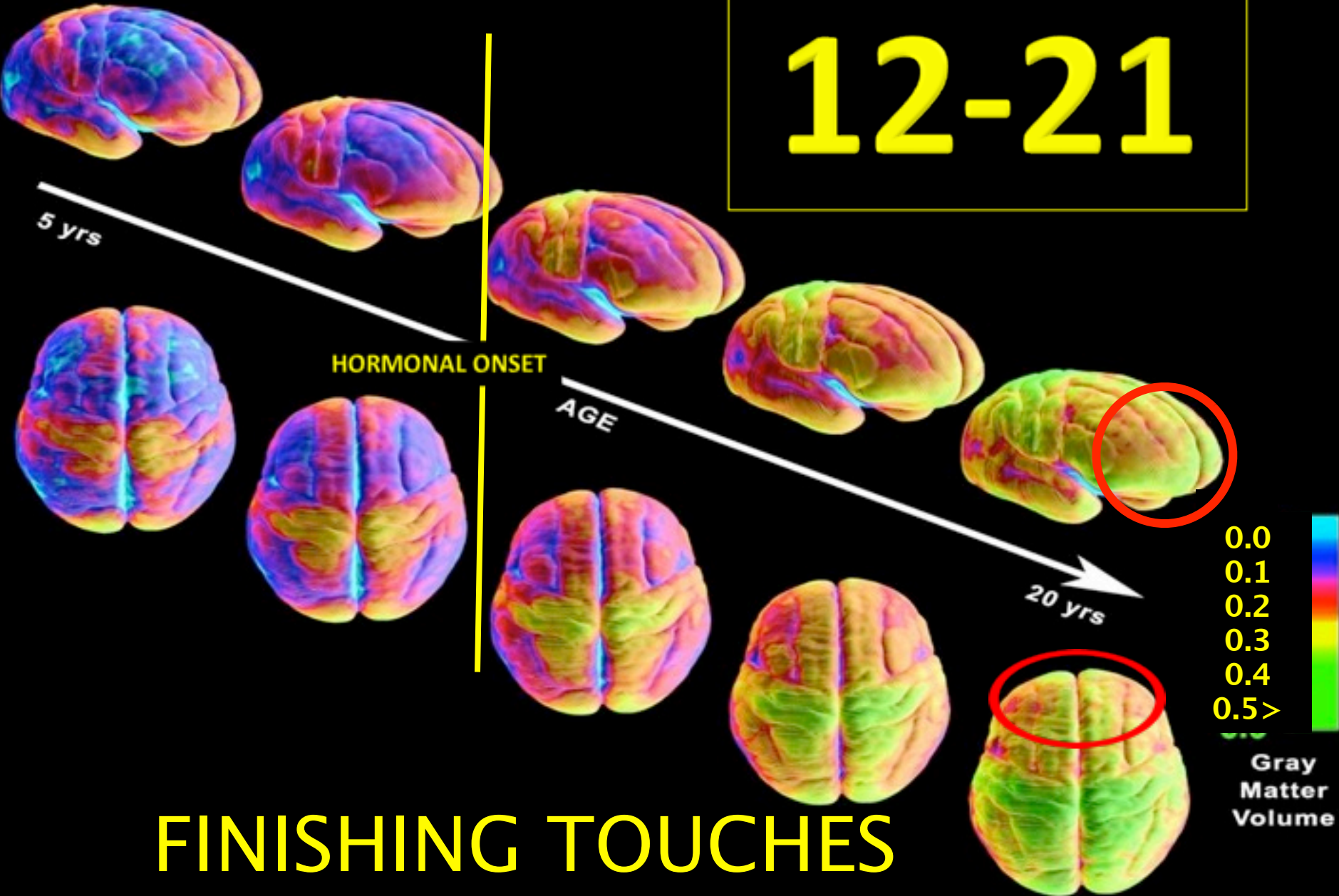
12-21



The most significant brain

BRAIN

12-21





Warning

Dangerous site

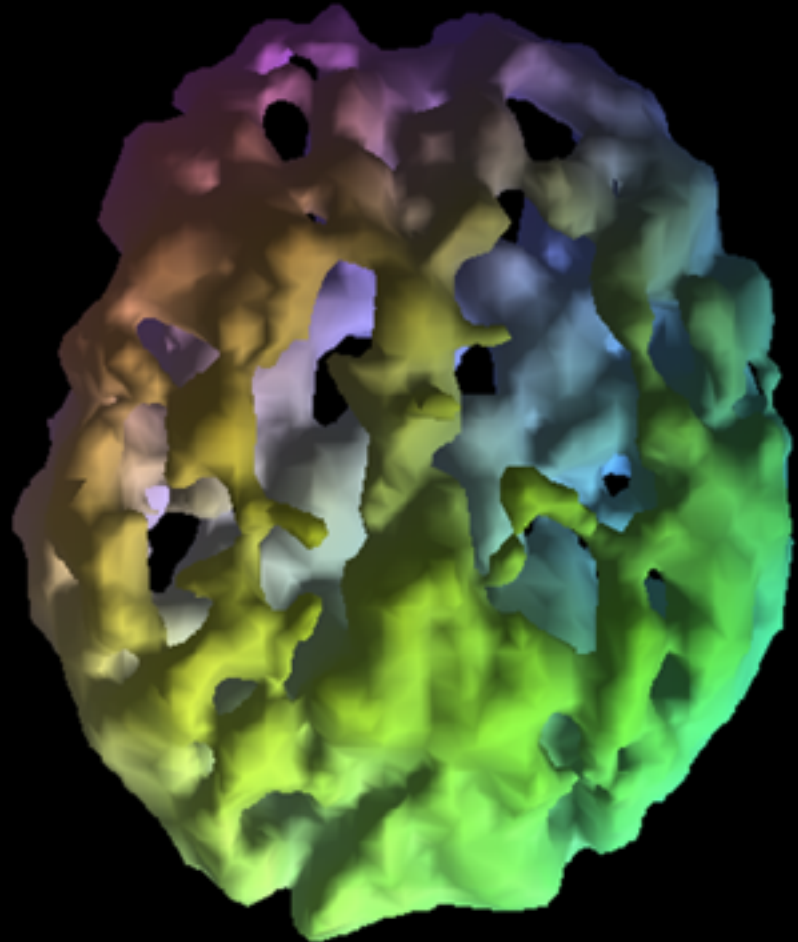


THE MOST DANGEROUS DRUG

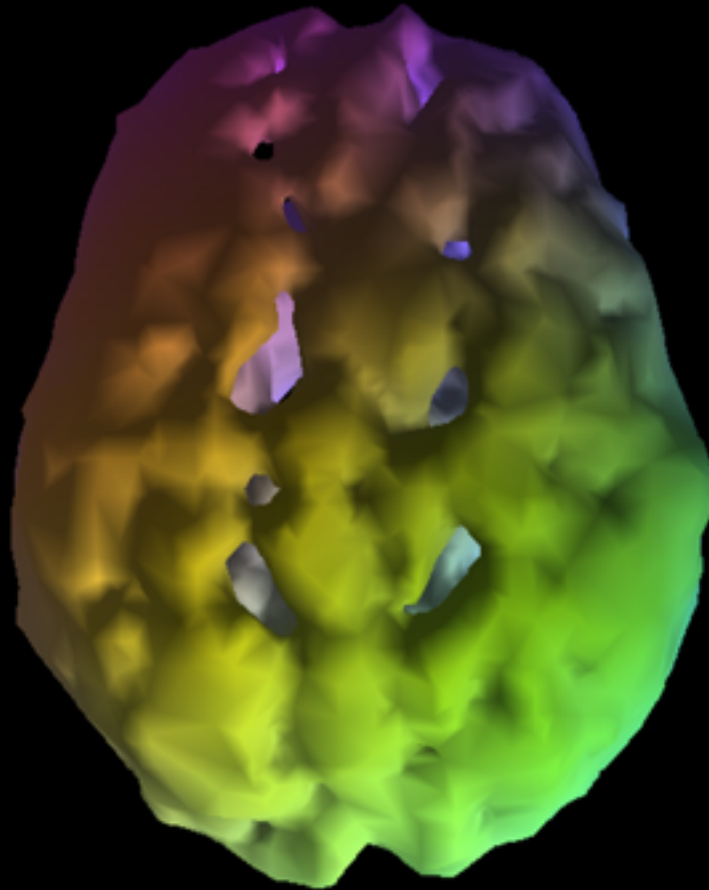
The image displays four 3D rendered models of a human brain, arranged in a 2x2 grid. Each model is rendered with a different color gradient: top-left is green-to-yellow, top-right is purple-to-pink, bottom-left is blue-to-purple, and bottom-right is pink-to-yellow. The models show a normal, healthy brain structure with clear sulci and gyri. The text "NORMAL HEALTHY" is centered in the middle of the grid in a white, outlined, sans-serif font.

NORMAL HEALTHY

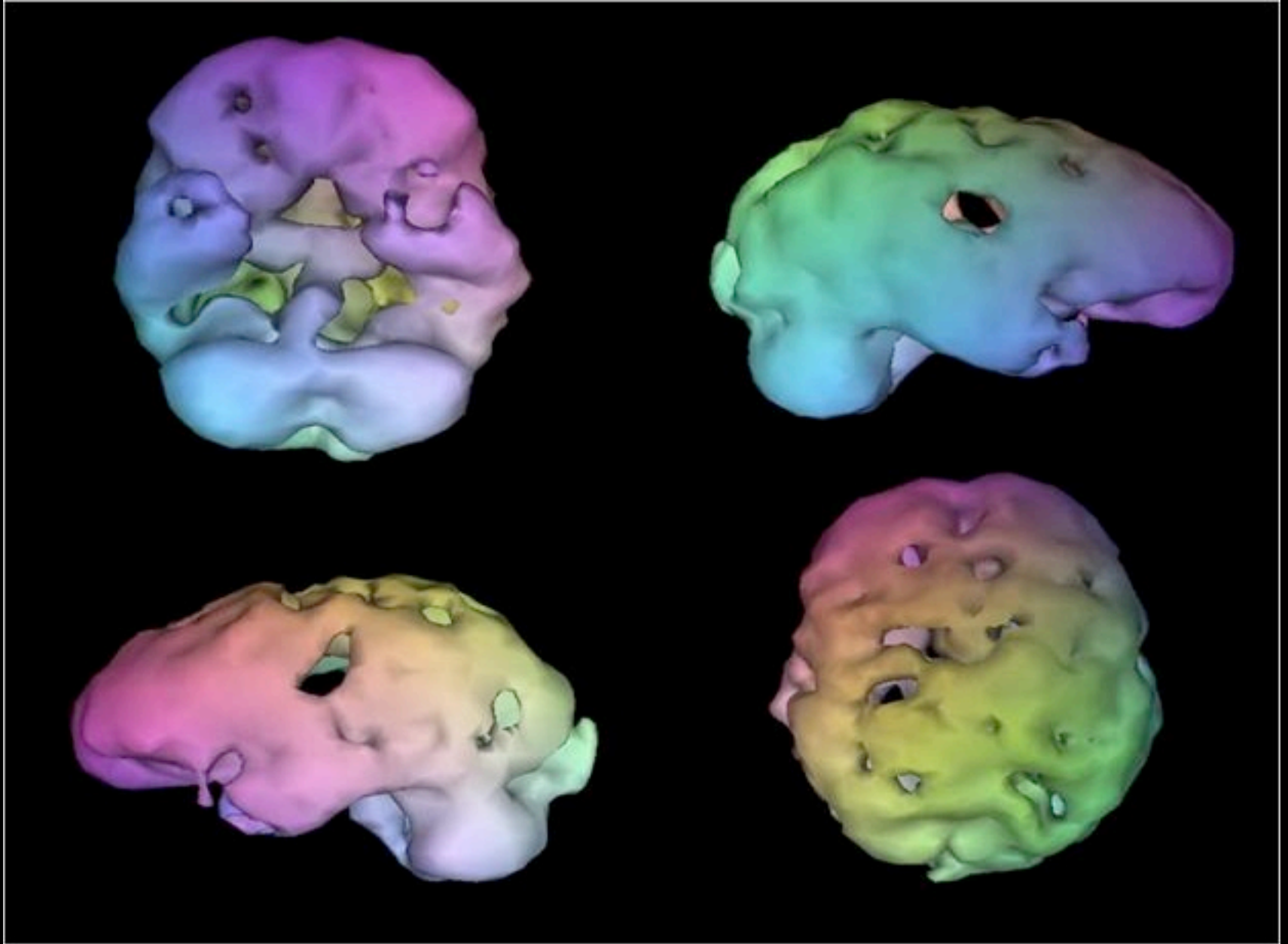
HEROIN



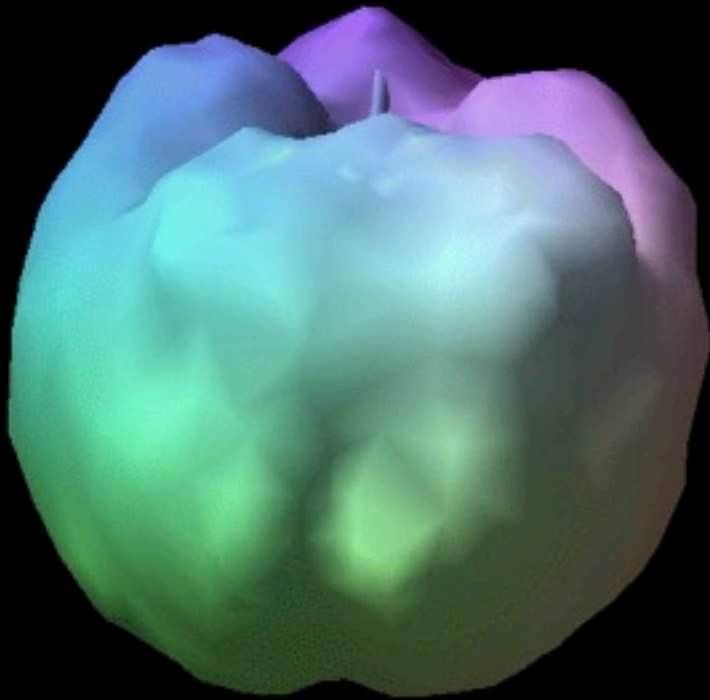
COCAINE



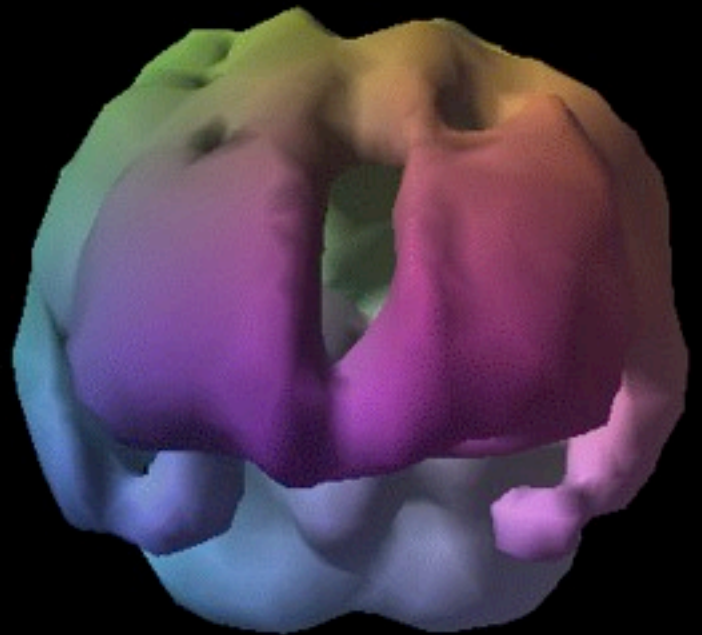
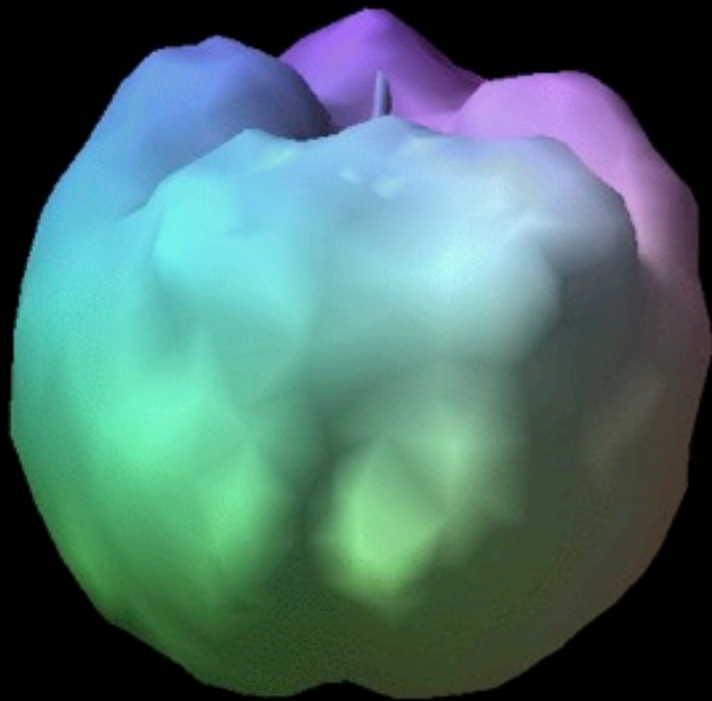
METHAMPHETAMINE



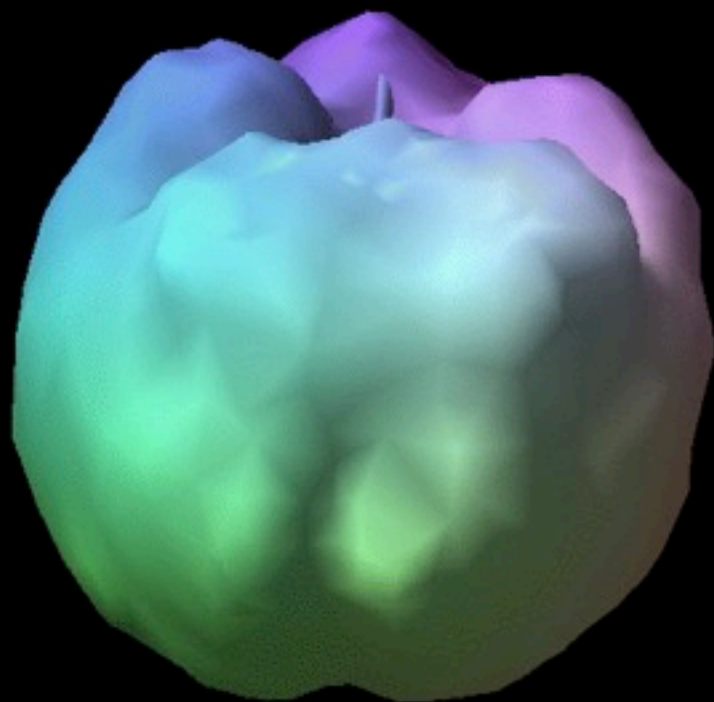
Healthy



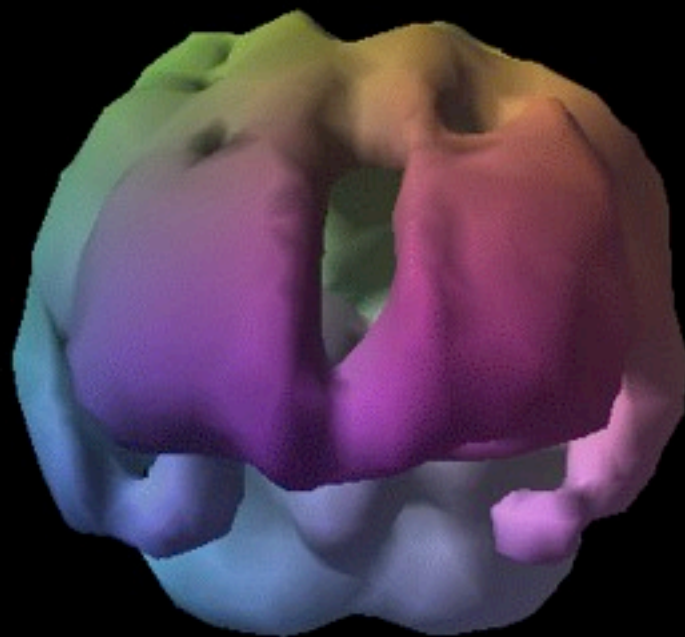
Healthy



Healthy

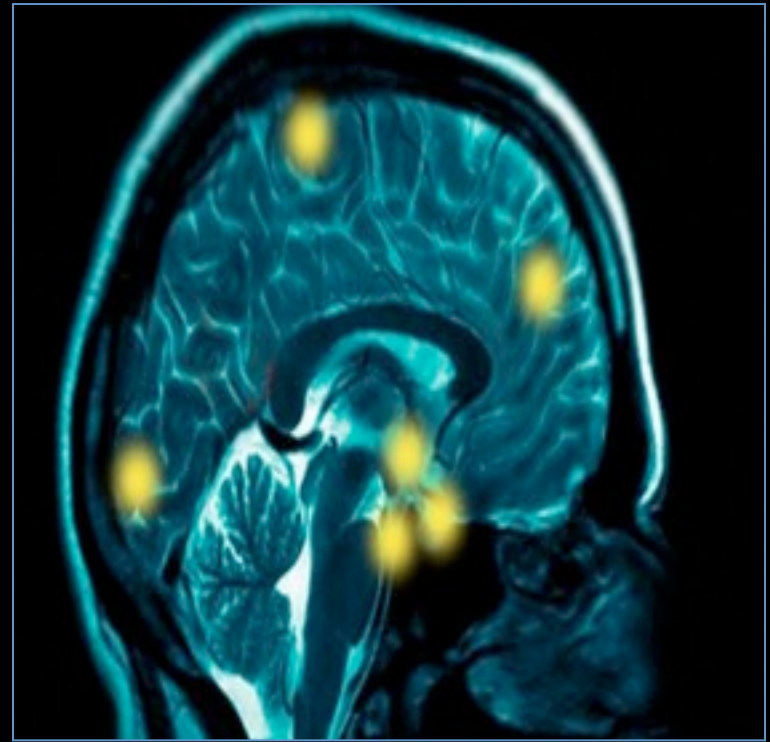


Alcohol





PHYSICAL

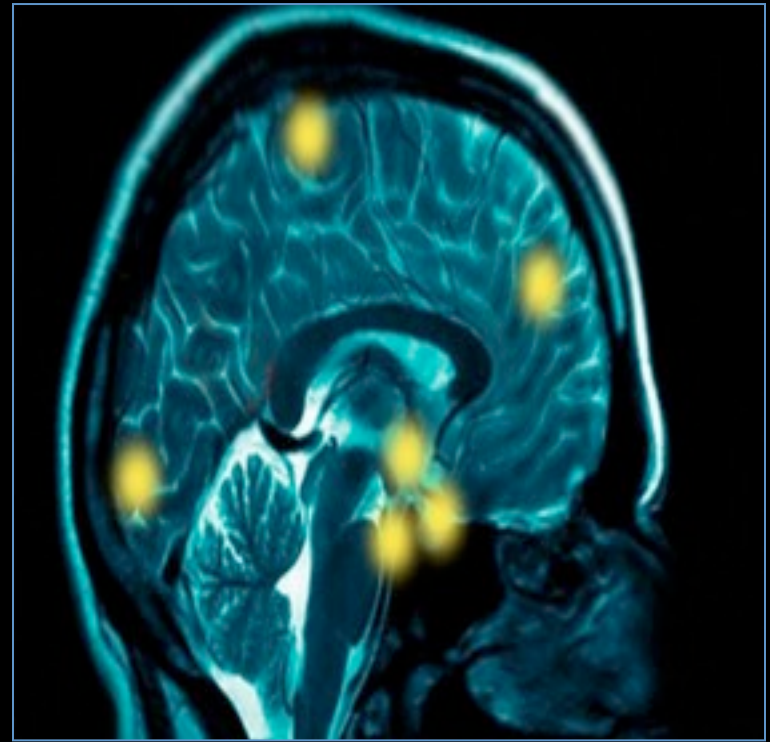


MENTAL

PERFORMANCE



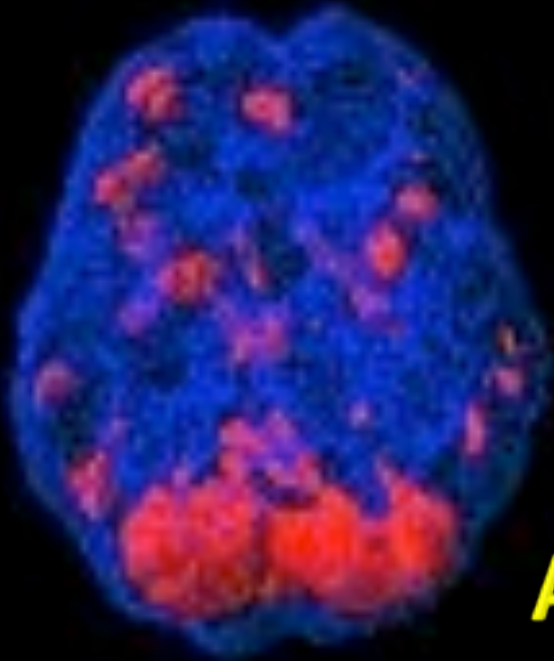
PHYSICAL



MENTAL

PERFORMANCE

BEING AT YOUR BEST

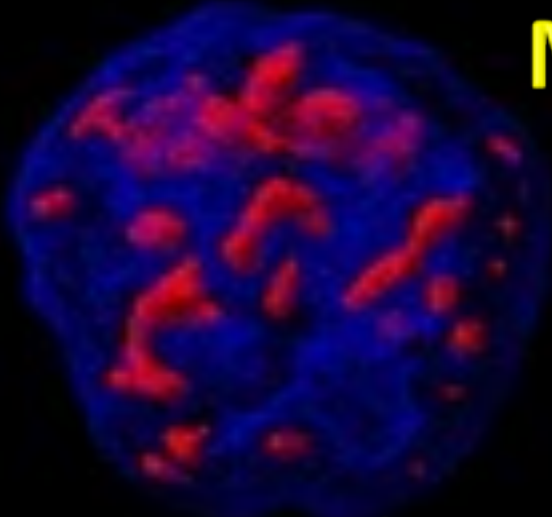


Not under influence

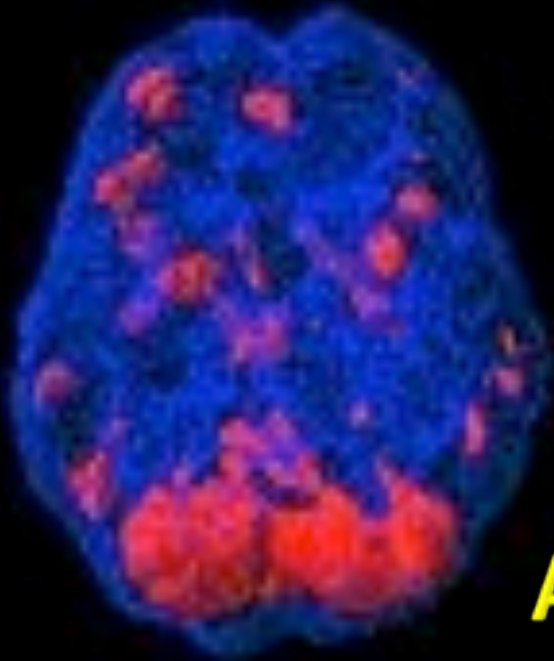
ALCOHOL

Under influence

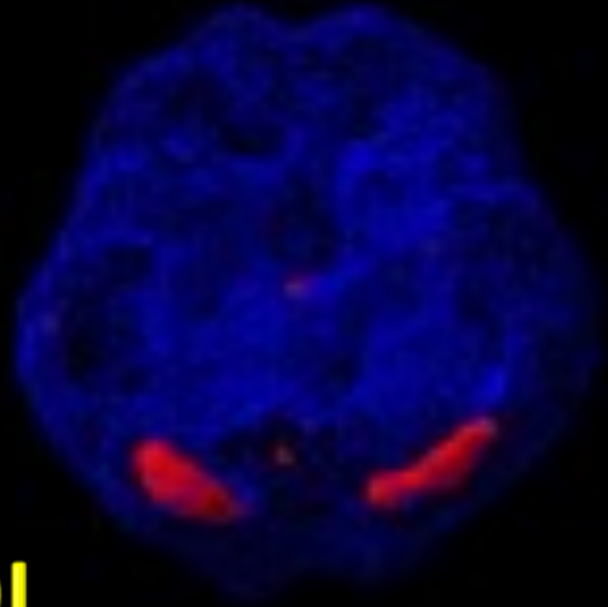
MARIJUANA



decreased brain activity



Not under influence

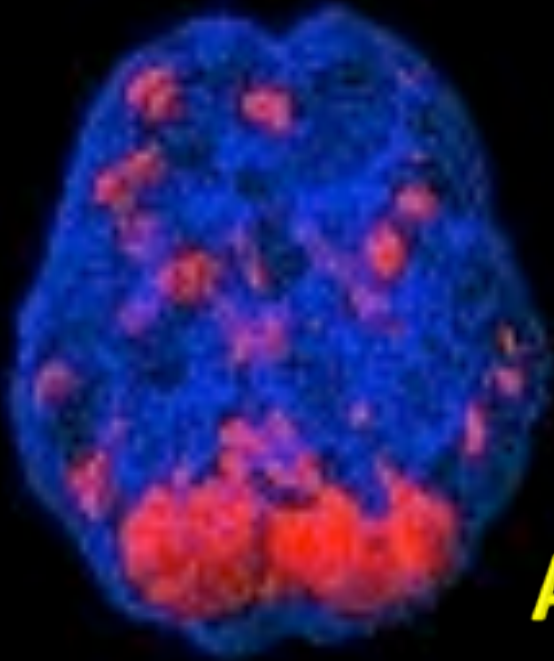


Under influence

ALCOHOL

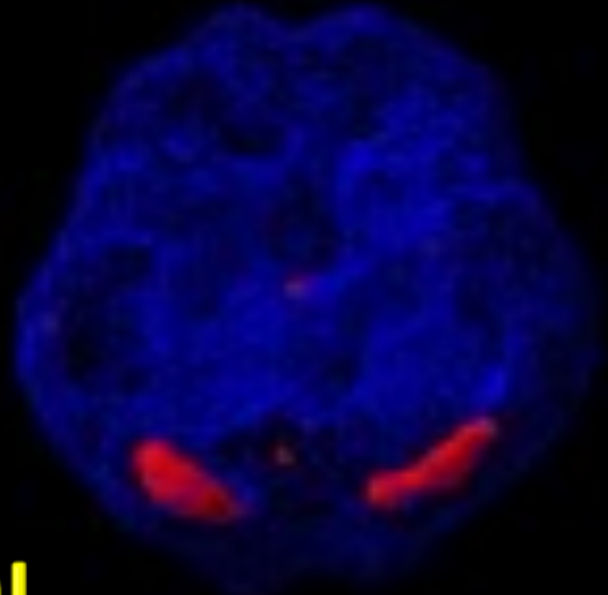
MARIJUANA

decreased brain activity



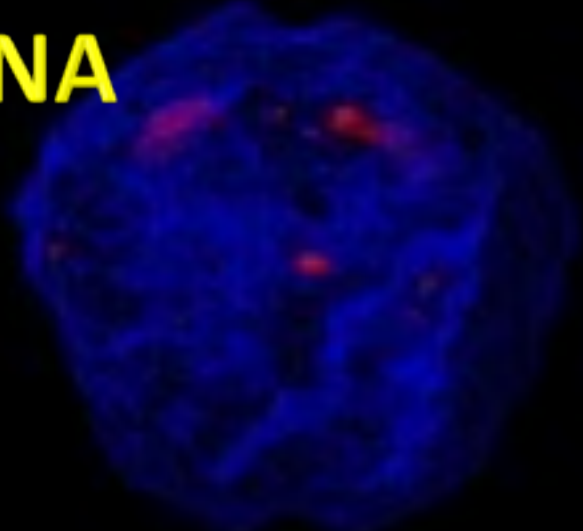
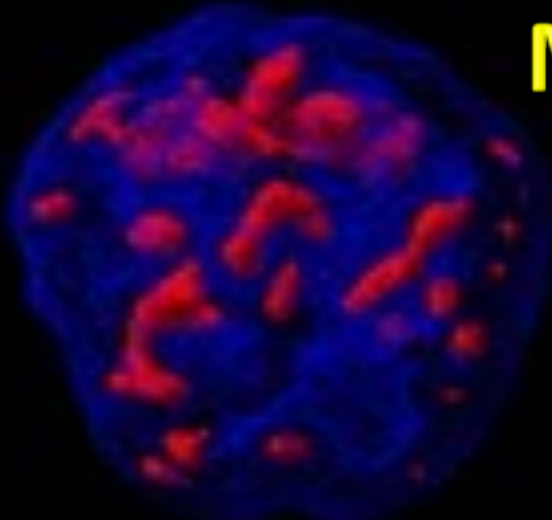
Not under influence

ALCOHOL

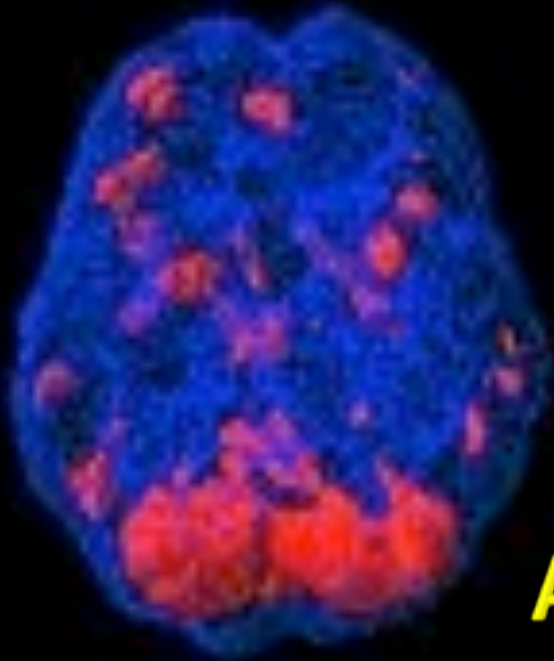


Under influence

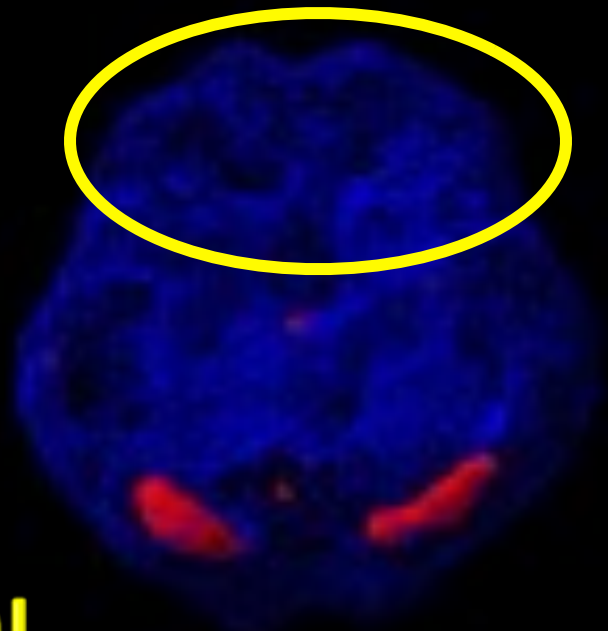
MARIJUANA



decreased brain activity



Not under influence



Under influence

ALCOHOL

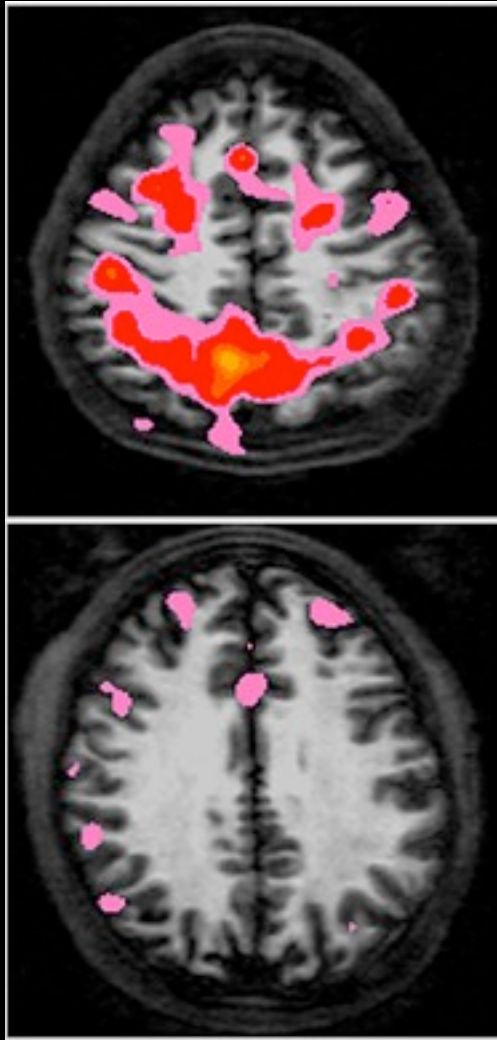
MARIJUANA

decreased brain activity

BRAIN ACTIVITY

MEMORY TASK

NORMAL
ALCOHOL USER
15 YEARS OLD



Susan Tapert/University of California, San Diego

The images above show the brain activity of a 15-year-old nondrinker, top, and a drinker,
bottom.

IT ALL BEGINS HERE



**Don't mess with
it.**



**Mess with your brain
Mess with your body**

Your brain runs your body

CNS READINESS

MENTAL OPTIMAL PHYSICAL



RESTED
+BLOOD GLUCOSE
NO DRUGS



SLEEP/REM



Sleep is clearly a predictor of performance in skill based sport.

6 Hours 40 Minutes

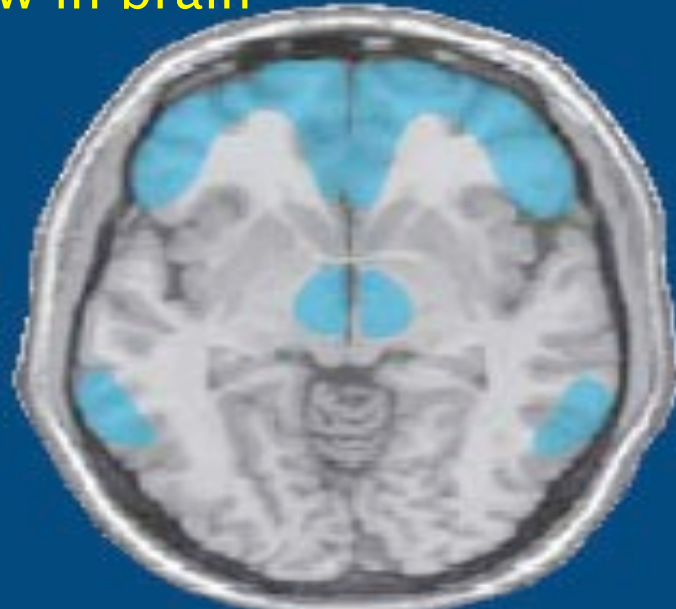
Rested

Tired

Blood flow in brain



8 hours sleep



No sleep

WORKS

FAILS

**IF THE BRAIN DOESN'T WORK
THE BODY DOESN'T WORK**

REPRODUCED WITH PERMISSION FROM THE JOURNAL OF NEUROSCIENCE AND CLINICAL NEUROSCIENCE, 2006, AMERICAN PSYCHIATRIC ASSOCIATION.

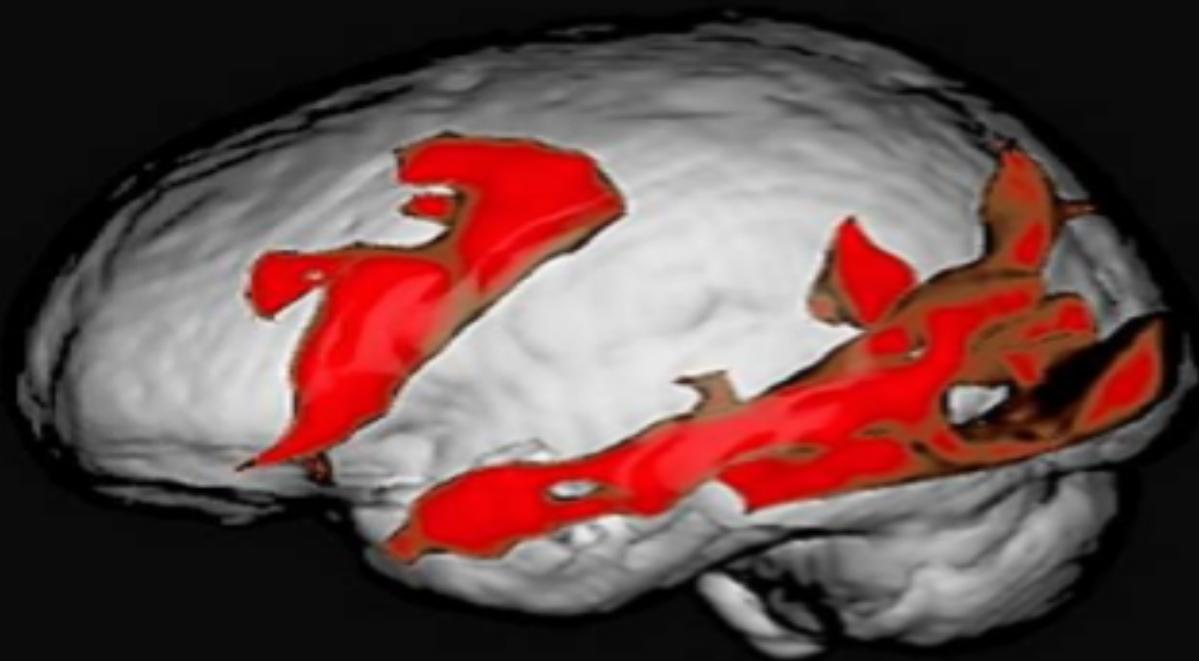
**There is
no way
to make
up for
the
deficits
of lost
sleep**



ENERGY DRINKS

Syakirah's photography

READ



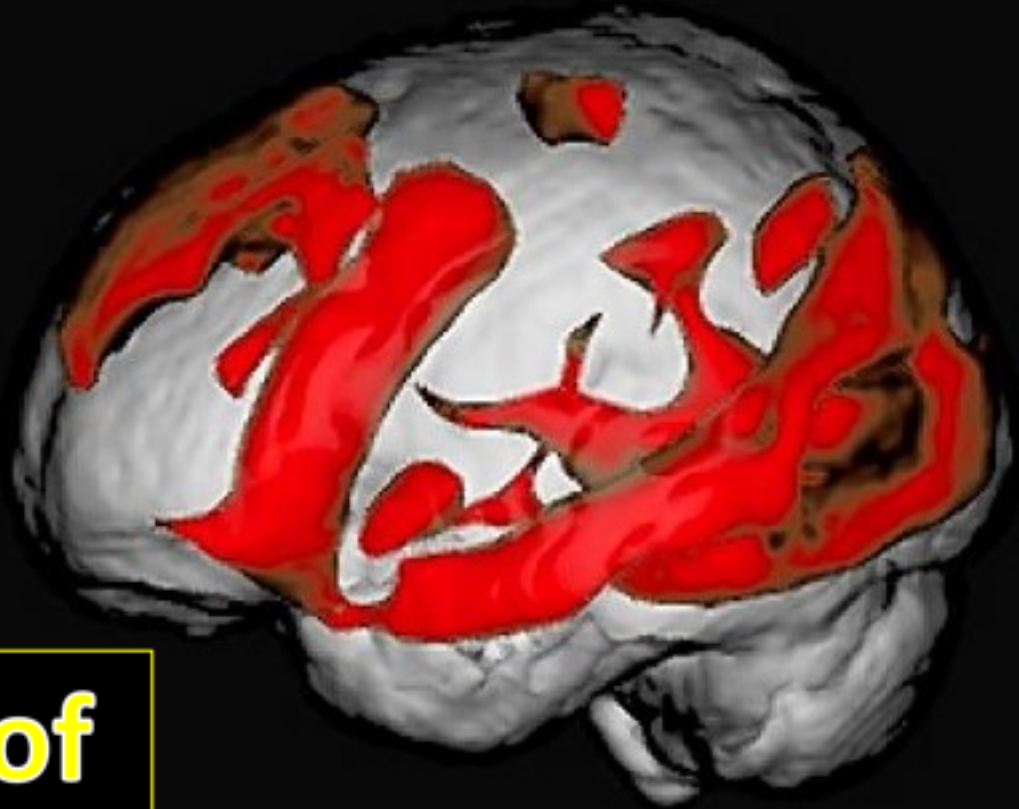
Dr. Gary Small / UCLA / Courtesy to The Chronicle

INTERNET

**Rest means
Rest...**

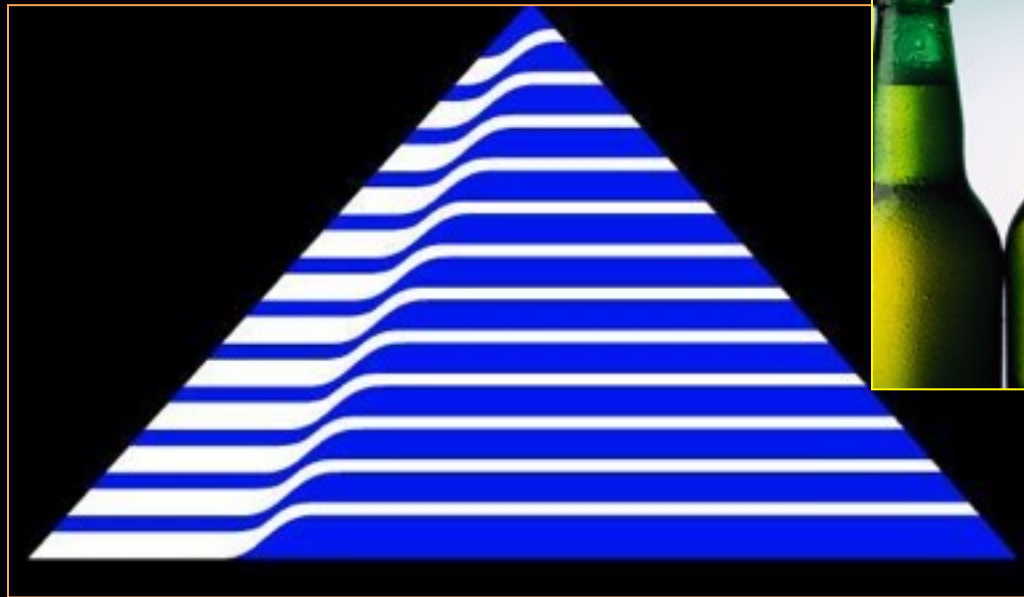
The CNS can rest
and reboot
critical energy
when the brain

**Nearly 2/3 of
brains activity**

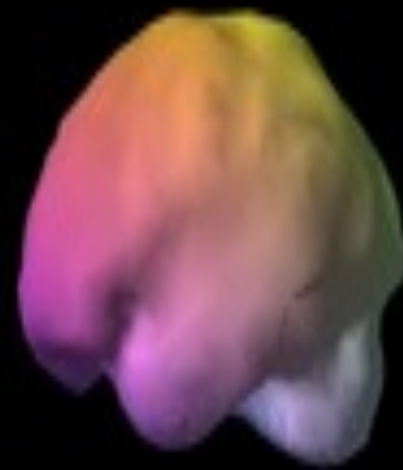
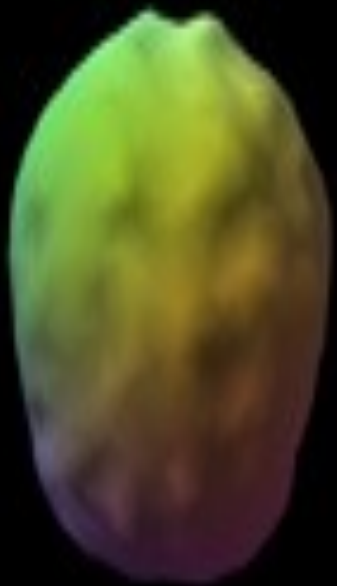


Dr. Gary Small / UCLA / Courtesy to The Chronicle

ALCOHOL



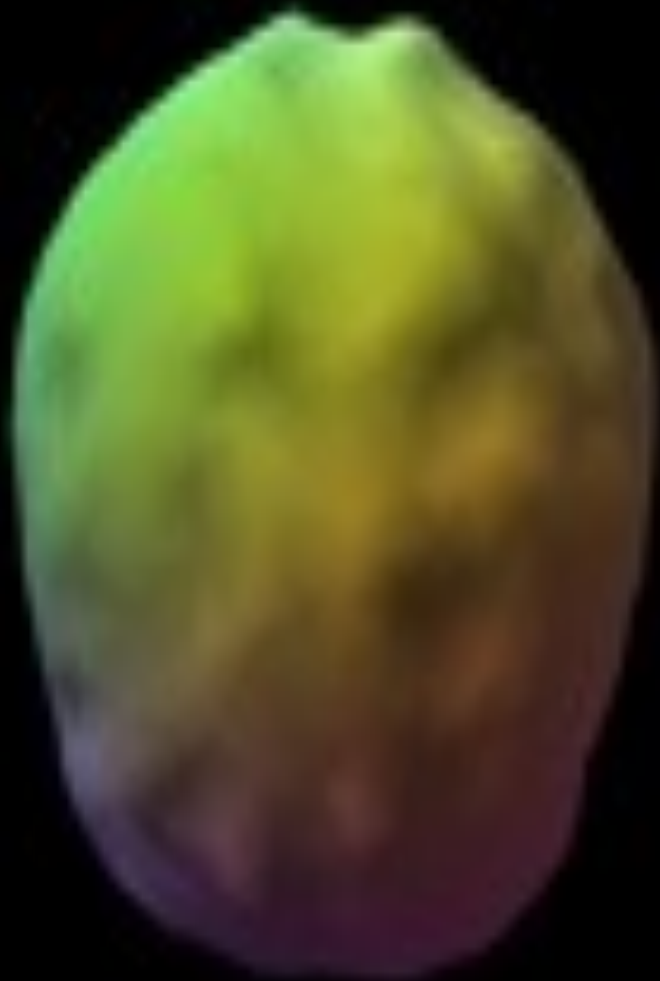
AMERICAN ATHLETIC
INSTITUTE
RESEARCH SCIENCE
DIVISION



ALCOHOL USE



SOCIAL DRUG USE

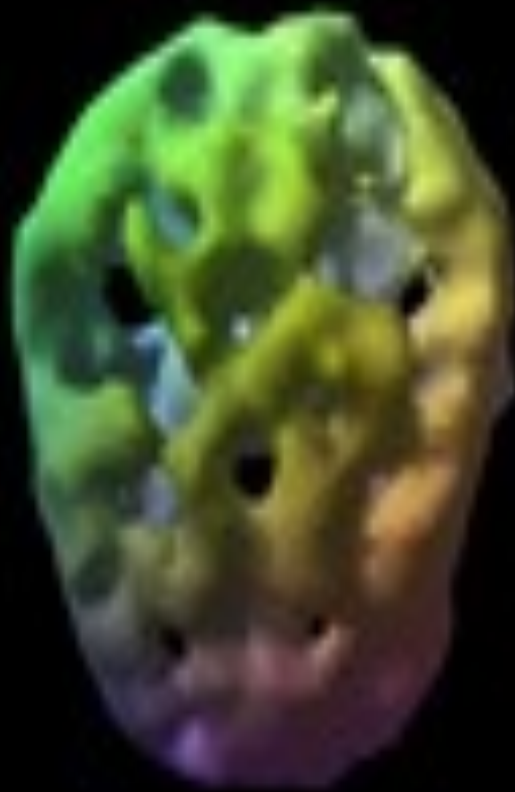


Surface View: This smooth view shows full activity

Bumpy areas and places that do not 'fill in' are areas of low or decreased activity.

Amen Clinics

SOCIAL DRUG USE

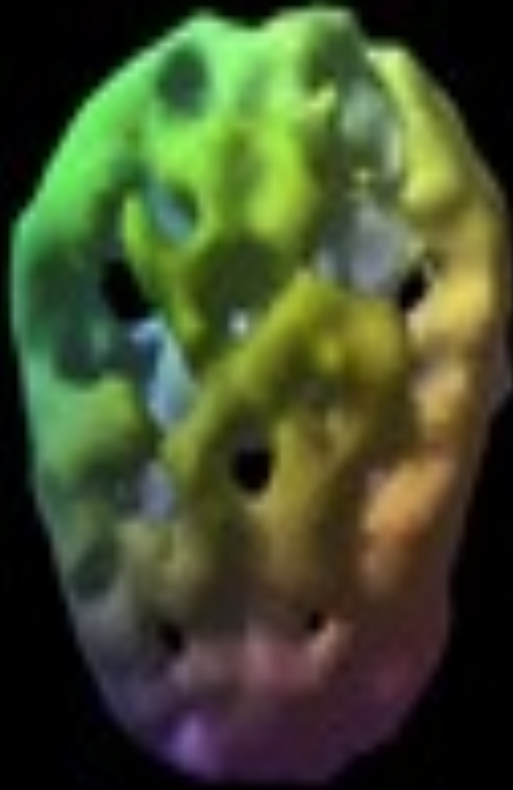


Surface View: This smooth view shows full activity

Bumpy areas and places that do not 'fill in' are areas of low or decreased activity.

Amen Clinics

SOCIAL DRUG USE



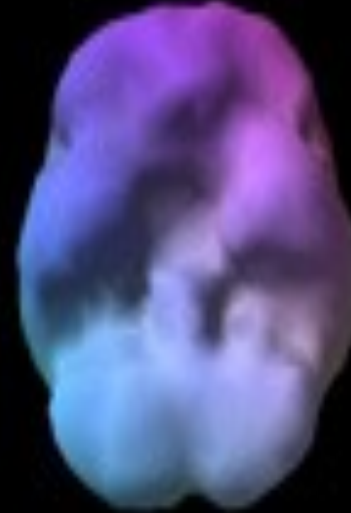
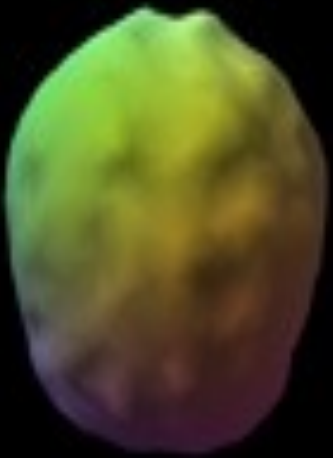
Surface View: This smooth view shows full activity

Bumpy areas and places that do not 'fill in' are areas of low or decreased activity.

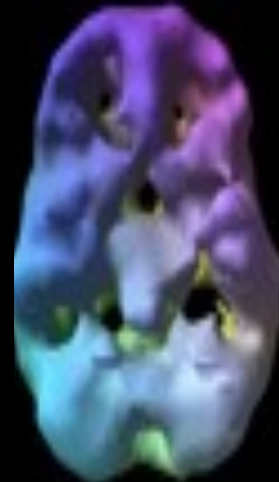
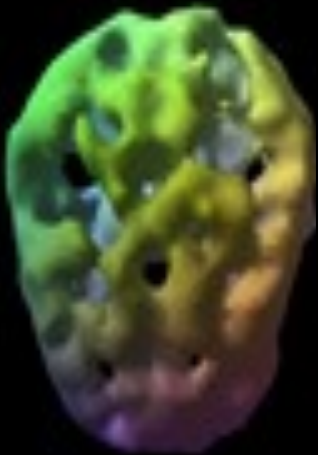
Teen heavy weekend user of Alcohol

Amen Clinics

Your brain runs your body



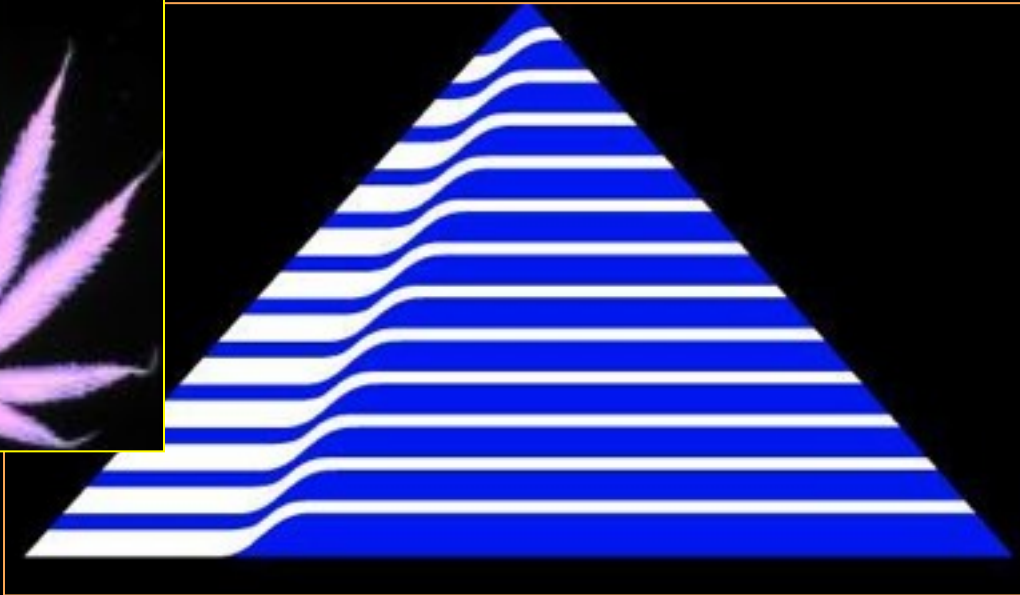
HEALTHY NORMAL
BRAIN



HEAVY TEEN ALCOHOL
USER

Scans by Amen Clinics

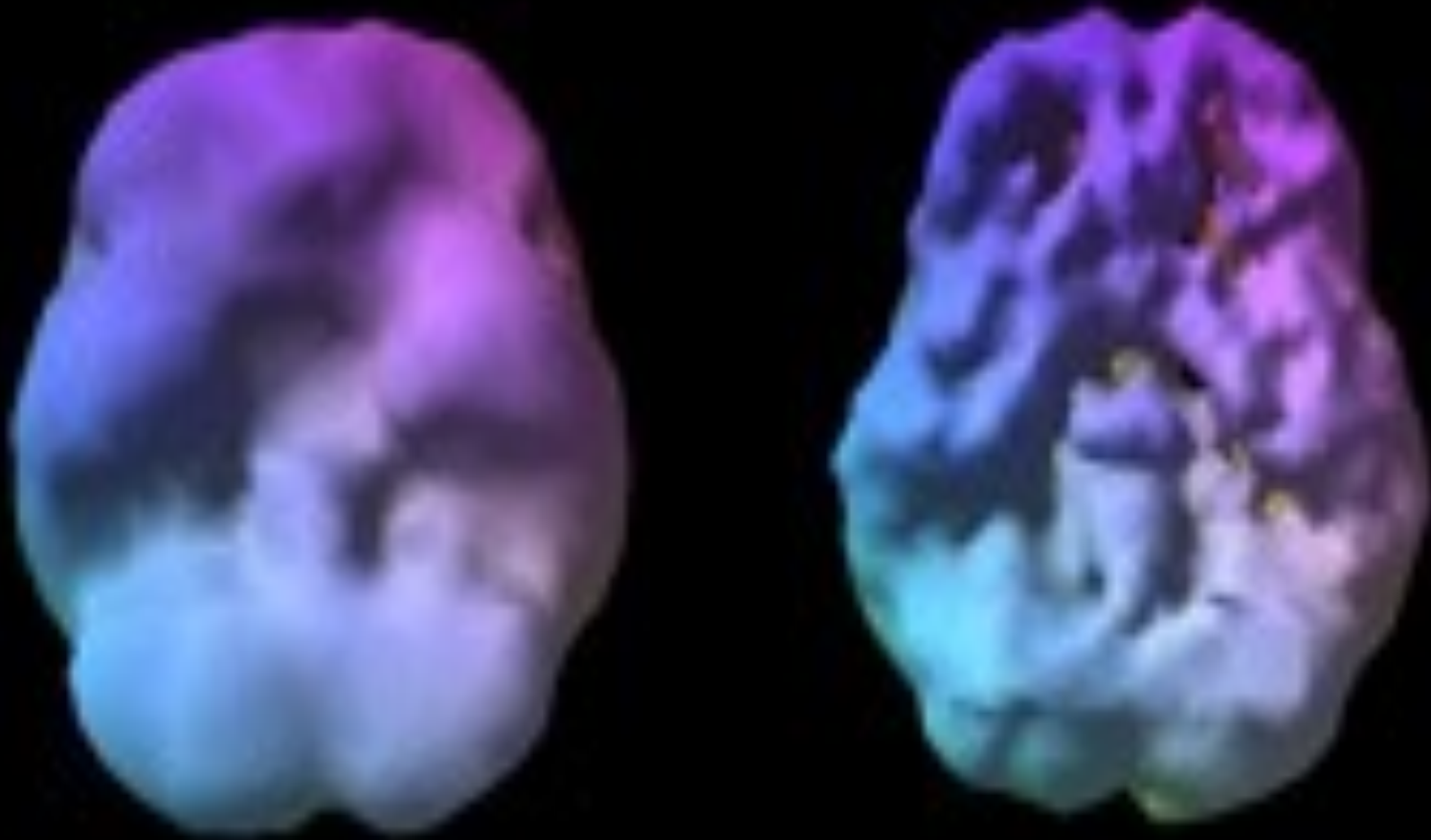
MARIJUANA



AMERICAN ATHLETIC
INSTITUTE
RESEARCH SCIENCE
DIVISION



Lifetime Use Marijuana



Healthy Brain

Marijuana Brain



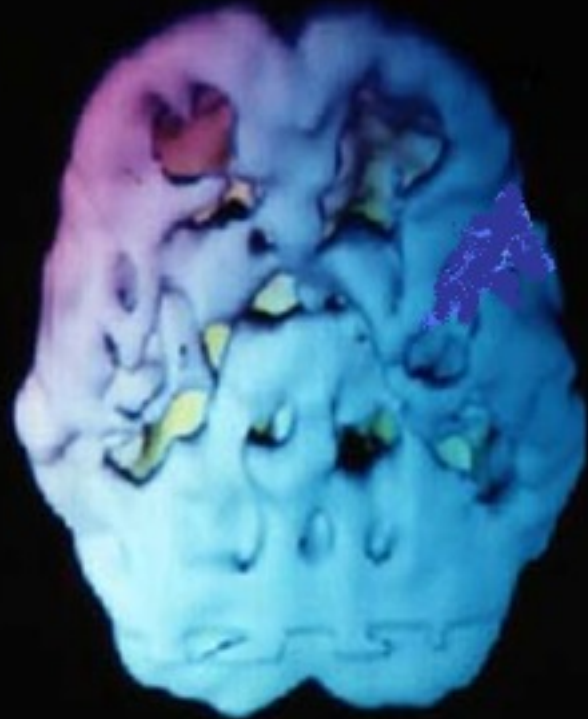
16 yr. old daily user

Amen Clinics

It doesn't affect me at all...

Healthy Brain

Marijuana Brain



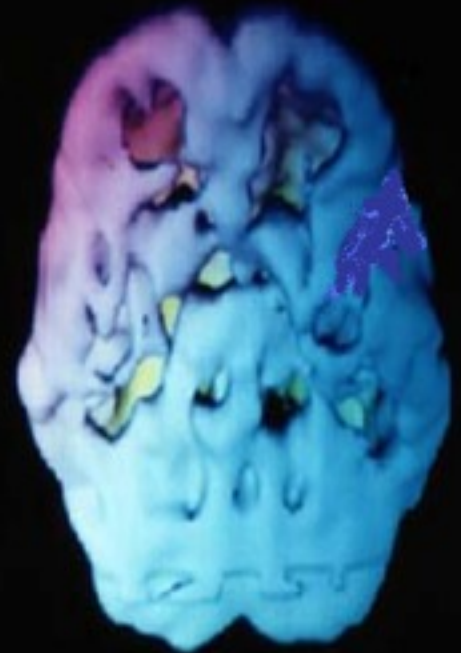
**ADULT
LIFELONG**



Healthy

16 Heavy

Lifelong



KEEP SMOKIN...



CNS



RESPONSE

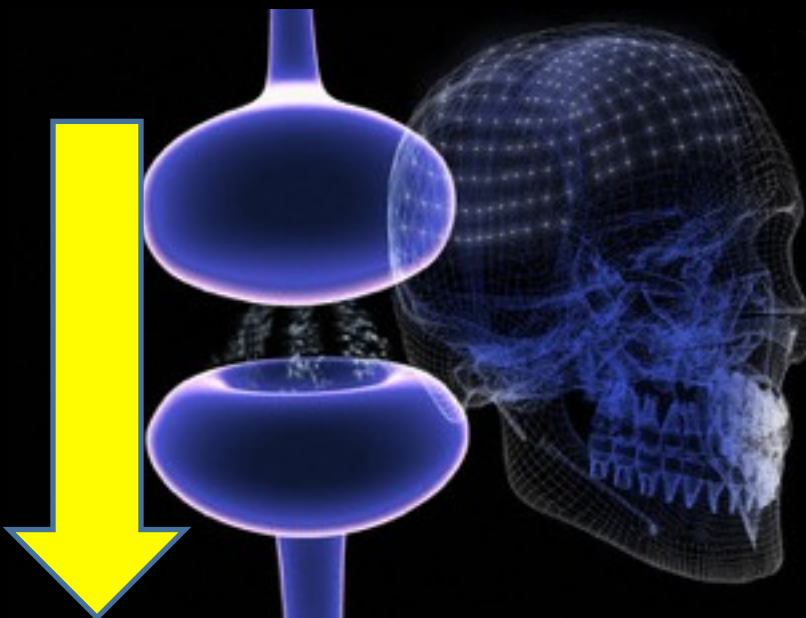




**SKILLS
ACCURACY**

REDUCED



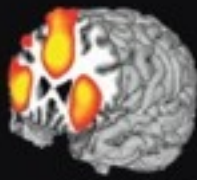


SENSORIMOTOR

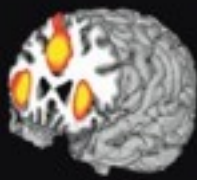




Placebo



Moderate



High

None
05

.10



REFLEXES

38%

SLOWER



Injury Rates >



Injury rates for drinkers 54.8%
Injury rates for non-drinkers
23.8%



DRINK



**Alcohol
decreases
immune
capability**

GET SICK



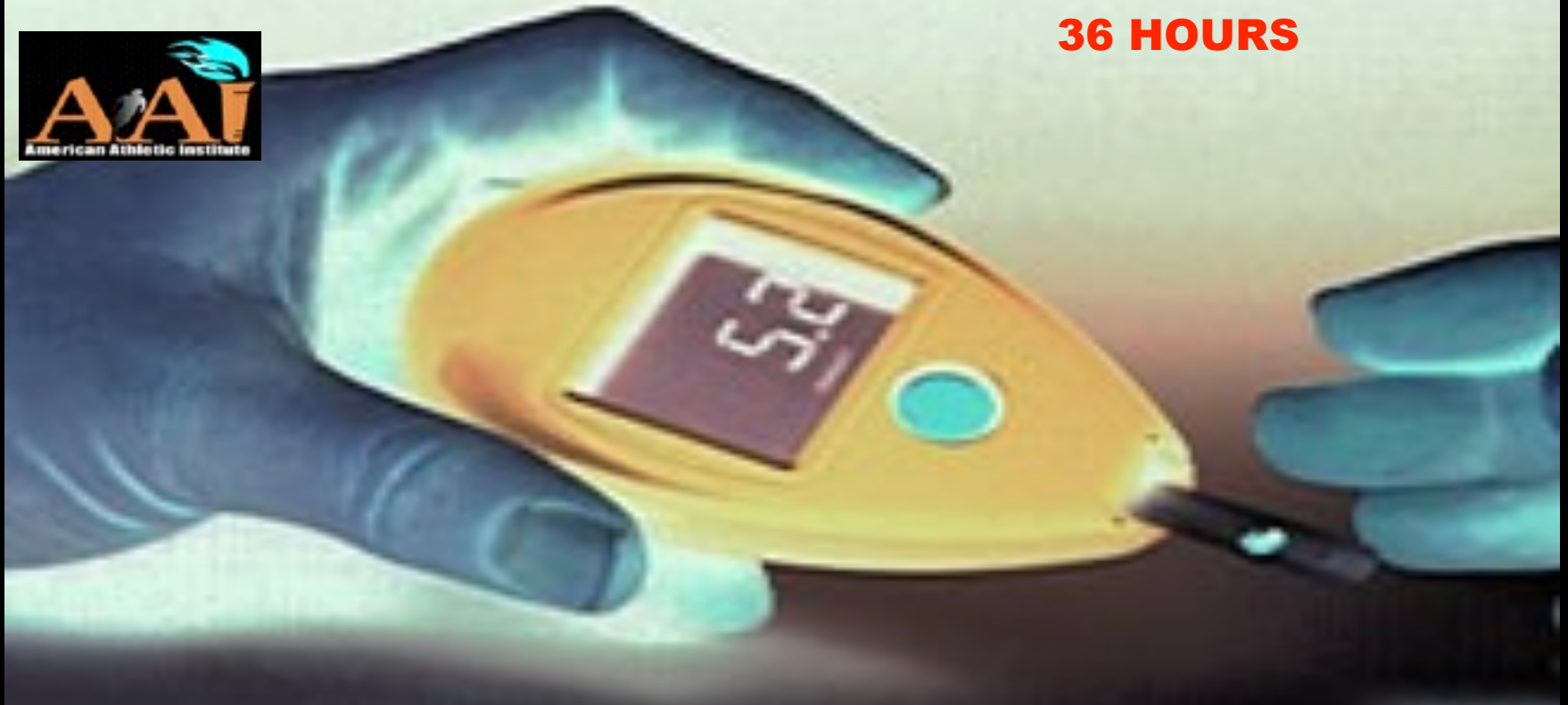
**YOUR BRAIN AND
YOUR
MUSCLES RUN OFF
BLOOD
GLUCOSE LEVELS**



the body has trouble making more glucose because it is expending its energy metabolizing the alcohol. Both of these effects of alcohol can cause severe hypoglycemia 6 to 36 hours after a heavy drinking episode.



36 HOURS



Hypoglycemia is defined as a blood sugar < 50 mg/dl

BLOOD GLUCOSE



LOST PERFORMANCE

The residual effect of alcohol or a hangover has been shown to reduce performance by an average of 11.4% in elite athlete populations.

11.4%<




A bodybuilder with dreadlocks is flexing his muscles. He is wearing a gold chain and Nike Pro shorts. The background is a plain, light-colored wall.

TRAINING



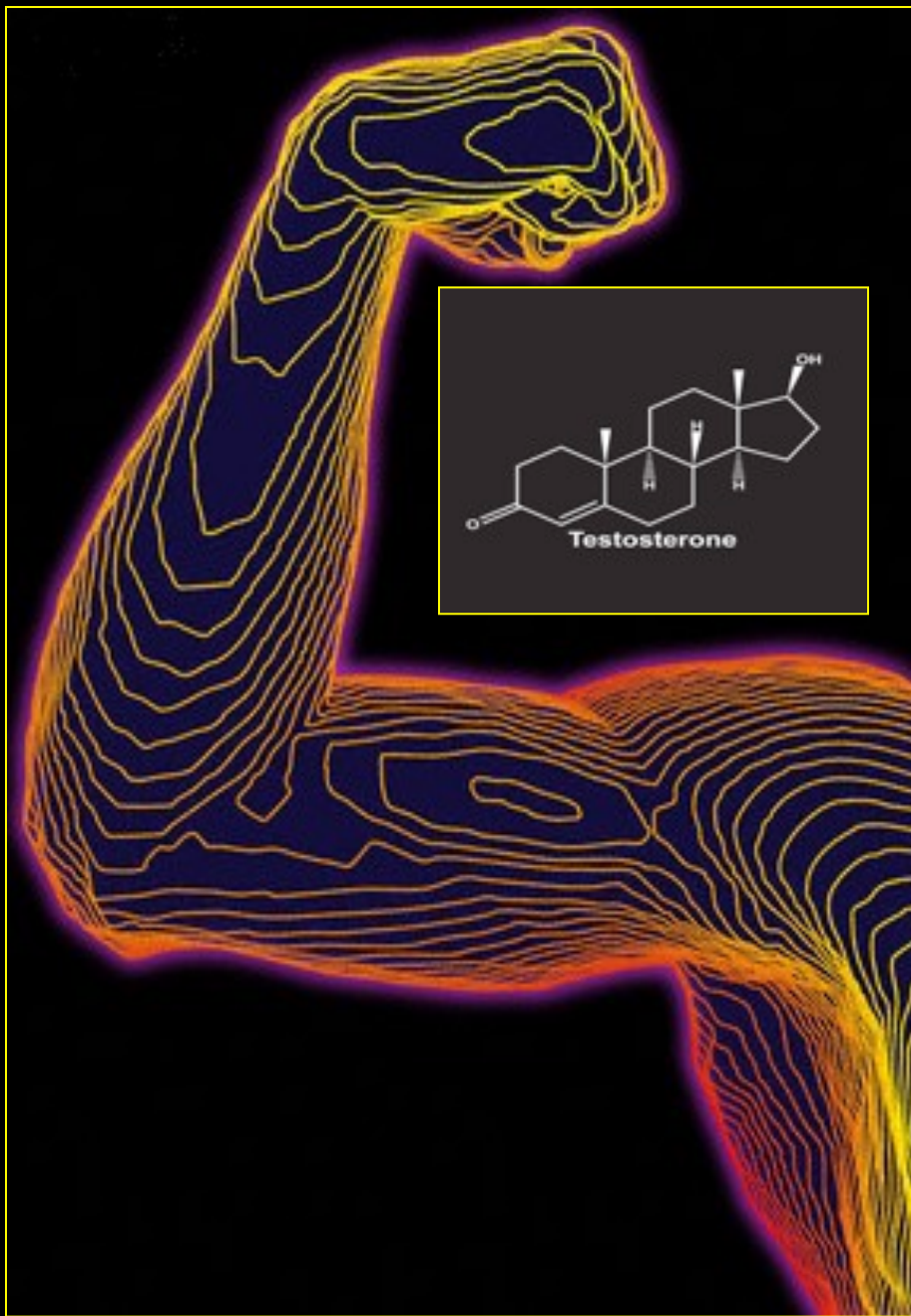
**TRAINING EFFECT
RECOVERY
PERFORMANCE**

A photograph of an ice hockey goalie in a white and red uniform, number 20, in a crouched position in front of the goal. The background shows other players and the arena lights.

DOSE DETERMINED DECREASE

The more alcohol ingested and the higher the blood alcohol levels, the lower the testosterone levels. Alcohol suppresses testosterone production in all humans, not just alcoholics.

TESTOSTERONE



Heavy maximal level training followed by excessive alcohol consumption can result in hormonal disruptions for up to 96 hours (4 days)

96 HOURS

(12–20 hours after the start of drinking) the testosterone level was only about half what it was...



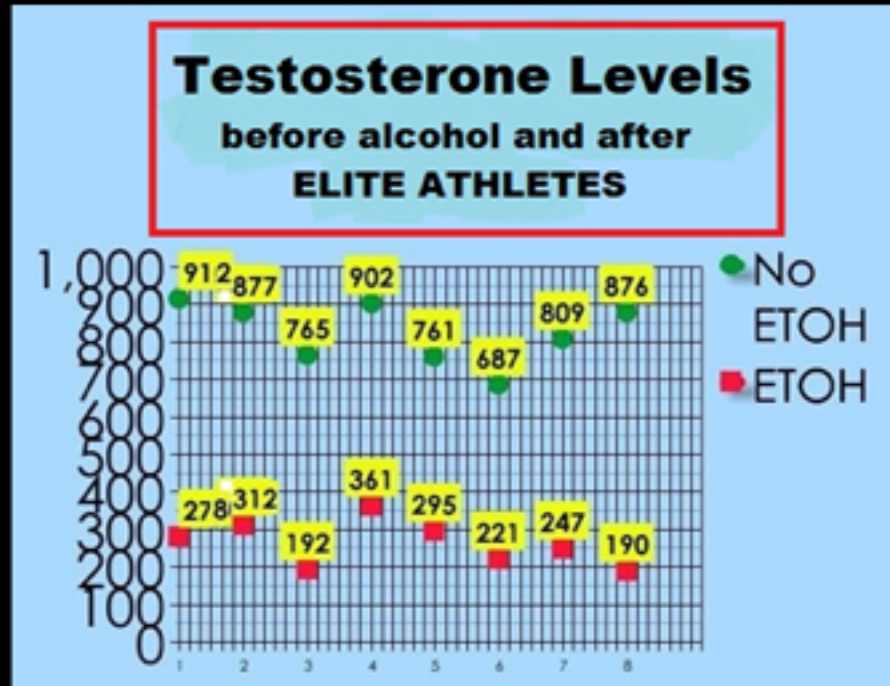
TESTOSTERONE



(12–20 hours after the start of drinking) the testosterone level was only about half what it was...



It happens fast



TESTOSTERONE



Some males who drink heavily & regularly have testosterone levels similar to female levels.

10:1 or 1:10

ALCOHOL VS. TESTOSTERONE

1:10

**FEMALES TAKE A
BIGGER HIT
FROM HEAVY DRINKING**



Alcohol stays in the female body longer. Females have less of the enzymes to breakdown alcohol.



1X DRUNK = 14 DAYS LOST TRAINING EFFECT

- American Athletic Institute has studied the impact of alcohol on condition in elite athletes. Impact has shown significant projections in lost physiological condition that correlates to as much as 14 days of lost training effect...for each time drunk...

AMERICAN ATHLETIC INSTITUTE 2005



DON'T WASTE YOUR TIME



One night of drinking can erase
as much as 2 weeks of athletic training!
WHAT GAME ARE YOU PLAYING?



Message sponsored by
Harney Partners for Kids & Families

The American Athletic Institute, 2010
© 2010-2011, Harney Valley Together Project, Inc. All Rights Reserved

MEADOW





One night of drinking can erase as
much as 2 weeks of athletic training.¹

I MAKE BETTER CHOICES



20th 2008-2010 Wetland Valley Together Project
All Rights Reserved www.wvtp.org

**Colfax County
DWI Program**

www.aaport.org



LAMAR



One night of drinking can
undo as much as
2 weeks of athletic training.¹

WHAT GAME ARE YOU PLAYING?

(541) 426-3277



vvtp.org

™ 2006-2009. Copyright © 2007-2009 Willows Valley Together Project, Inc.

¹The American Athletic Institute, 2005.

MEADOW



Throwing away your hard work?



one night of drinking
wipes out 2 weeks of training

American Athletic Institute study, 2010



Prevention Network

©2009

www.PreventionNetworkCNY.org 315-471-1359

design: Gregory Daly

IT'S ALL ABOUT YOU...

The decisions you make will shape your future.

RAISE THE BAR FOR YOURSELF

A high jumper in a blue singlet and shorts is captured in mid-air, performing a Fosbury Flop over a blue bar. The athlete is silhouetted against a clear blue sky. In the background, stadium lights on tall poles and a dark treeline are visible. The overall scene is set in a stadium during the day.