

# What's Your Experience?

- **Any experience with addiction in friend or family member?**
- **Any personal experience?**
- **Any education on the subject?**
- **Do you know about the brain?**
- **Are you aware of the statistics?**
- **Do you believe in spiritual battles?**

# **Adolescent Abuse & Addiction**

**Pornography  
Drugs  
Alcohol  
Gaming  
Gambling**

# Drug & Alcohol Statistics

<http://www.athealth.com/Consumer/adolescentsufacts.html>

- Youth age 16 to 17 have the second highest rate (16.4 percent) of current **illicit drug use** in the country. The highest rate (19.9 percent) is found among young people age 18 to 20.
- Although **consumption of alcoholic** beverages is illegal for people under 21 years of age, 10.4 million current drinkers are age 12 to 20. Of this group, nearly half (5.1 million) engage in binge drinking, including 2.3 million who would also be classified as heavy drinkers.

# Mental Health Statistics

<http://www.oas.samhsa.gov/> US Dept. of Health and Human Services

- The most common reasons for which the youth received mental health services were: feeling depressed (50%), problems at home/family (28.8%), breaking rules or "acting out" (25.1%) and thought about killing self or tried to kill self (20.2%). While there were no gender differences in the receipt of care in inpatient specialty settings, **female youth were more likely than males to receive mental health services** in outpatient specialty, educational, or general medical settings.

# Pornography Statistics

- <http://www.catholic.org/prwire/headline.php?ID=6053>
- Internet pornography goes far beyond the inquisitive adolescent male getting his first glimpse of a racy magazine, Ms. Gallaher said.
- “The level of hard core exposure at such a young age without someone to process it with can really affect that person into adulthood,” she said.

**Internet pornography is so compelling**, said Ms. Gallaher, because of the anonymity (you don't have to show yourself at a public place to obtain it), the accessibility (the Internet does not close), and the affordability (some sites are even free), and the instant gratification.

“You never get to the end of the Internet like you do a magazine,” she said. “There is no natural stopping point.”

# **Substance Abuse & Addiction**

# **Stages of Addiction**

**1. Fun**

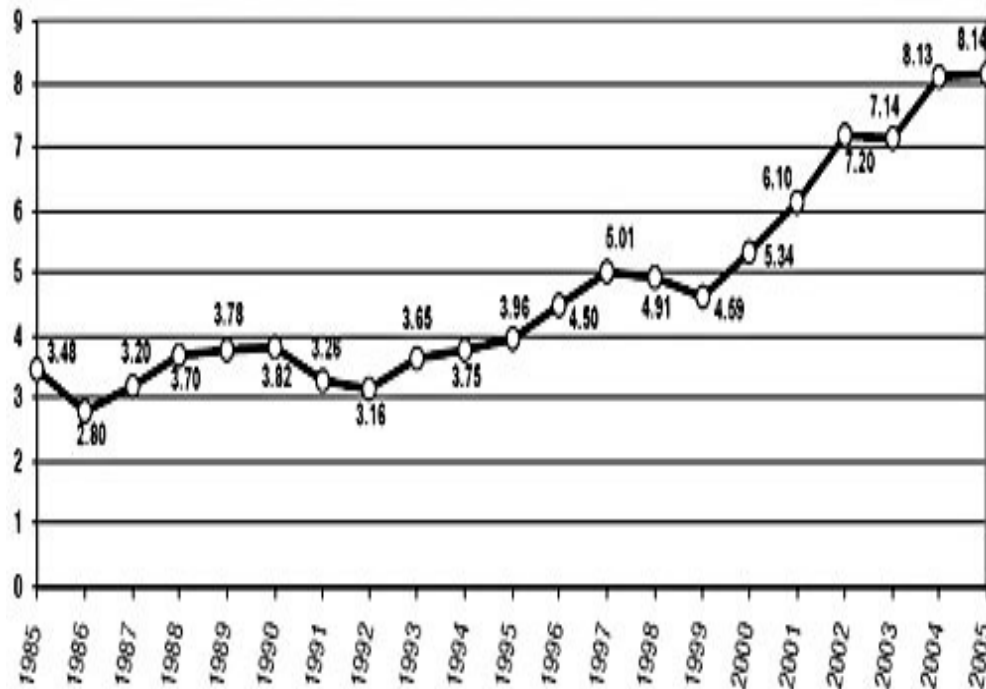
**2. Fun + Trouble**

**3. Trouble**

# Marijuana stats???????

<http://www.nida.nih.gov/Infofacts/marijuana.html>

- Average percentage of THC in samples of seized marijuana, 1985-2005.





**Not Organic!**

**THC contents  
now up as  
high as 30%**

# Signs and Symptoms of Substance Abuse

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The following behavior changes, **when extreme or lasting for more than a few days, may indicate alcohol-related or drug-related problems and the need for further screening by a professional.**

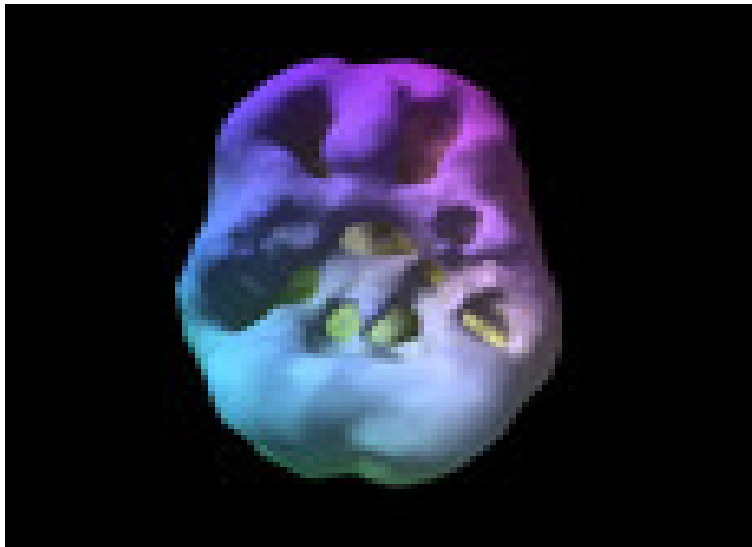
- Sudden changes in personality without another known cause
- Loss of interest in once favorite hobbies, sports, or other activities
- Sudden decline in performance or attendance at school or work
- Changes in friends and reluctance to talk about new friends
- Deterioration of personal grooming habits
- Difficulty in paying attention, forgetfulness
- Sudden aggressive behavior, irritability, nervousness, or giddiness
- Increased secretiveness, heightened sensitivity to inquiry

# **Even Higher THC-2006**

- **Mexican DTOs (Drug trade organizations) previously produced marijuana from outdoor cultivated cannabis with average THC levels of 2 or 3 percent but now are achieving 8 to 12 percent THC levels through improved cultivation methods.**

# MARIJUANA IMAGES

16 Year Old  
2 Year History



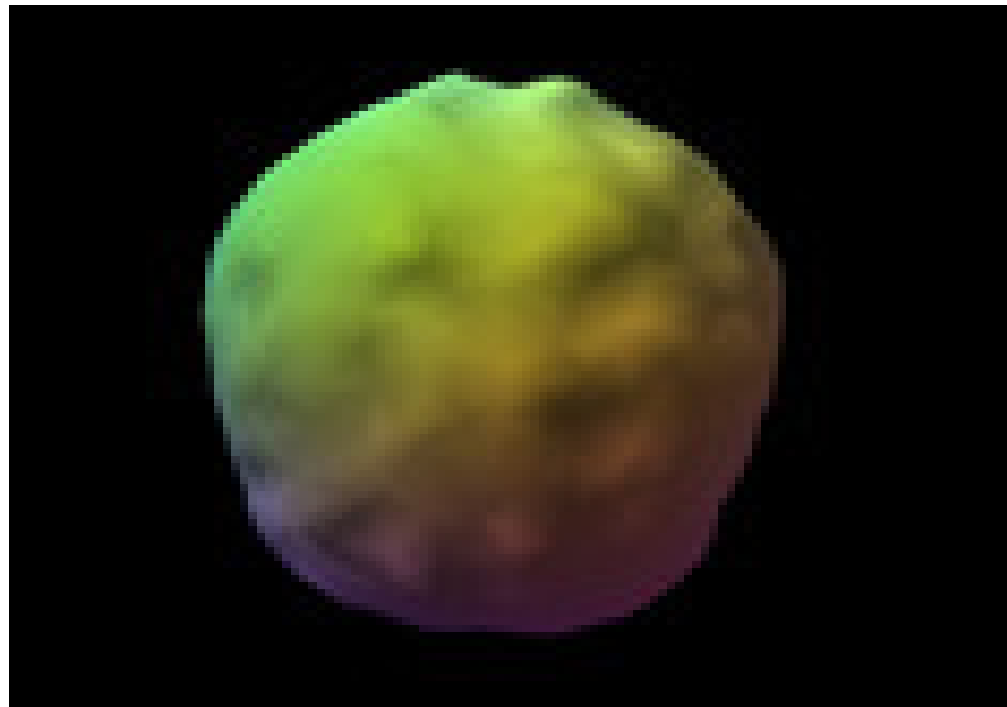
18 Year Old  
3 Year History  
4x a week use



Decreased temporal lobe activity

marijuana usage typically causes decreased activity in the posterior temporal lobes bilaterally

# Normal Brain



# Temporal Lobe

- The temporal lobe is involved in auditory processing and is home to the primary auditory cortex. It is also important for the processing of semantics in both speech and vision. The temporal lobe contains the hippocampus and plays a key role in the formation of long-term memory.

# Frontal Lobe

- The frontal lobe contains most of the dopamine-sensitive neurons in the cerebral cortex. The dopamine system is associated with reward, attention, long-term memory, planning, and drive. Dopamine tends to limit and select sensory information arriving from the thalamus to the fore-brain

# Impact on Neurodevelopment

- **Impact on adolescent neurodevelopment must be taken into account as well. Functions such as judgment, impulse control, predicting the future consequences of an action, and delayed gratification, are being established.**
- **Such executive functions are processed in the frontal and temporal lobes, in areas that are maturing in adolescence.**
- **It is likely the psychoactive drugs have an impact on the maturation of these areas, with profound effects on the mature personality.**



# **Marijuana Signs and Symptoms**

- **Very marked change in friends**
- **Abrupt change in personality**
- **Apathetic attitude**
- **Feelings of persecution, especially by authority figures**
- **Tendency to look or act sleepy and do things slowly**
- **Overly aggressive or overly passive**