Drugs and Keeping Teens Safe

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Today:

Sharing a Story: Parent

• A teen perspective
• Teen brain and addiction
  • New Trends
• Keeping teens safe
• What to watch for
• Laws and resources
Addiction Usually Starts Before the Age of 18

8.4% did not use before age 18
91.6% Addicts 1st used ATOD before age 18

National Center For Addiction and Substance Abuse (CASA) 2012
2016: Tahoe Truckee Youth
9th graders drug of choice - past 30 days:

17% Marijuana
11% Alcohol
6% ecig Tobacco-Vaping
5% Rx drug
4% Binge Drinking
3% Tobacco Cigarettes
0% Inhalants
Tobacco - it is Strongly Linked to Drug Addiction

Chance of Drug Addiction by Cigarette Smoking Status

National Center For Addiction and Substance Abuse (CASA) 2012
Why are drugs more dangerous for teens?
The Teen Brain Under Construction
Cannabinoid Receptors (CB1) in the Brain

NEOCORTEX
Responsible for higher cognitive functions and the integration of sensory information

BASAL GANGLIA
Involved in motor control and planning as well as the initiation and termination of action

AMYGDALA
Responsible for anxiety, emotion and fear

VENTRAL STRIATUM
Involved in the prediction and feeling of reward

BRAIN AND SPINAL CORD
Important in the vomiting reflex and the sensation of pain

HYPOTHALAMUS
Controls appetite, hormonal levels and sexual behavior

HIPPOCAMPUS
Important for memory and the learning of facts, sequences and places

CEREBELLUM
Center for motor control and coordination

http://www.drugabuse.gov/publications/research-reports/marijuana/how-does-marijuana-produce-its-effects
The earlier people begin using drugs or alcohol, the more likely they are to become dependent.

% addicted to Marijuana by age of first use of Marijuana

- 17 years: 17%
- 15 years: 16%
- 17 years: 11%
- 19 years: 8%
- 21+ years: 4%

Heavy Adolescent Marijuana Use and Cognitive Impairment

- People who started as teens and smoked the most Marijuana saw an 8 point IQ Drop
- The more they used, and the younger they started, the more intelligence they lost
- People who did not use Marijuana did not see any IQ drop.

1M.H. Meier, Avshalom Caspi, et al. 2012. “Persistent cannabis users show neuropsychological decline from childhood to midlife.” Proceedings of the National Academy of Sciences
Marijuana is the #1 Drug that Teens seek Treatment For

2016: 62 Teens Were in Placer County Drug Treatment (Does not include private treatment)

Their drug of choice was:

- 72.6% Marijuana
- 9.7% Alcohol
- 9.7% Heroin
- 6.5% Methamphetamine
- 1.6% other

*2015 Treatment Admissions Substance Use, (Ca. Outcomes Measurement System), Placer
Signs to WATCH For

Behavior changes:

- Hiding, secretive
- Laughing for no reason
- Irritable-depressed, mood
- Hyper or sleeping too much
- Changes in appetite
- Poor grades, poor hygiene
- Lost interest in things
- Pupils-dilated, constricted bloodshot eyes
- Smell
What is an E-Cigarette?

Battery  Atomizer  Cartridge

screw atomizer to battery  push cartridge to atomizer

© 2009 K. Nacheff
Side Effects of Nicotine

- Blood
  - Increased clotting tendency

- Lungs
  - Bronchospasm

- Muscular
  - Tremor
  - Pain

- Gastro-intestinal
  - Nausea
  - Dry mouth
  - Dyspepsia
  - Diarrhea
  - Heartburn

- Joints
  - Pain

- Central
  - Lightheadedness
  - Headache
  - Sleep disturbances
  - Abnormal dreams
  - Irritability
  - Dizziness

- Heart
  - Increased or decreased heart rate
  - Increased blood pressure
  - Tachycardia
  - More (or less) arrhythmias
  - Coronary artery constriction

- Endocrine
  - Hyperinsulinemia
  - Insulin resistance
E-juice/e-liquid

- Distilled water
- Propylene Glycol (PG)
- Vegetable Glycerin (VG)
- Nicotine Concentrate
- Artificial Flavoring
IT'S NOT JUST "HARMLESS WATER VAPOR"

E-cigarette aerosol contains at least 10 chemicals on California’s Prop 65 list of chemicals known to cause cancer, birth defects or other reproductive harm.


CALIFORNIA OFFICE OF ENVIRONMENTAL HEALTH HAZARD ASSESSMENT, SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986. CURRENT PROPOSITION 65 LIST

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Explosions?
Serving Size of Marijuana?

A new user needs 2-3mg THC to get high, if using an edible for the first time, do not exceed 1-5mg THC* (may take 1-2 hours to take effect)

In 1970 1 joint (.5g) x (.01) THC=5mg
(Heavy User 10 joints in a day=50 mg)

Today: Flowers
1g x (.17)THC=170mg THC

Today Concentrates
.50g x (.74)THC=740mg THC

How Marijuana Impairs Driving
(Driving is a Divided Attention Task)

• Slower Breaking/Reaction Time
• Poor Lane Tracking/More Steering Corrections
  • Poor Speed Maintenance
  • Time and Distance Perception
  • Poor Attention to Tasks
• Euphoria/Relaxed inhibitions
• Difficulty problem solving
• Impaired motor coordination and concentration
• Incomplete Thought Processes

* Erin Holmes, Director of Traffic Safety Foundation for Advancing Alcohol Responsibility Presentation at the Community Anti-Drug Coalitions of America July 18, 2016
Preventing Teen Drug Abuse

What’s the #1 reason that kids say they don’t use drugs?

They don’t want to disappoint their parents or lose their trust.
Preventing Teen Drug Abuse

#2 reason is that

“They have better things to do”