

# Drug Abuse

#### Darrin Privett MD

EDAP Medical Director Base Hospital Medical Director



### **National Trend**



## Common Reasons for Alcohol and Other Drug Use

# What do you think are common reasons why teenagers use alcohol and/or other drugs?



# Common Reasons Teens Use Alcohol and Other Drugs

- •Boredom
- Availability
- Conformity
- Curiosity
- •Fun
- Escape
- Rebellion



 Friends • Movies and TV shows that glamorize drug use Desire to look cool •Peer Pressure Desire to alter mood Escape negative emotions

# **Effects of Alcohol and Drug Use**

#### Physical

- Disruption with learning, memory, and concentration
- Affects judgment and decision making
- Increases risk of mental health disorders

#### Emotional

- Increased feelings of
  - loneliness and ostracism
- Increased irritability
- Increased anxiety
- Depression
- Feelings of low self-esteem



# **Stages of Use**



Every user has the potential to be an *abuser*.





#### **Researchers have determined:**

Teenagers move through these stages at a **greater rate** than adults

It takes **8-10 years** for an adult to travel from experimentation with alcohol and/drugs to becoming chemically dependent

It takes a teenager anywhere from **3-15 months.** 





Photo courtesy of the NIDA Web site. From *A* Slide Teaching Packet: The Brain and the Actions of Cocaine, Opiates, and Marijuana.



#### movement -

#### -sensations



### judgement

### reward

#### memory

coordination

Photo courtesy of the NIDA Web site. From A Slide Teaching Packet: The Brain and the Actions of Cocaine, Opiates, and Marijuana.









# **Positron Emission Tomography (PET)**



### Your Brain on Drugs



Photo courtesy of Nora Volkow, Ph.D. Mapping cocaine binding sites in human and baboon brain in vivo. Fowler JS, Volkow ND, Wolf AP, Dewey SL, Schlyer DJ, Macgregor RIR, Hitzemann R, Logan J, Bendreim B, Gatley ST. et al. *Synapse* 1989;4(4):371-377.

### Your Brain After Drugs



Photo courtesy of Nora Volkow, Ph.D. Volkow ND, Hitzemann R, Wang C-I, Fowler IS, Wolf AP, Dewey SL. Long-term frontal brain metabolic changes in cocaine abusers. *Synapse* 11:184-190, 1992; Volkow ND, Fowler JS, Wang G-J, Hitzemann R, Logan J, Schlyer D, Dewey 5, Wolf AP. Decreased dopamine D2 receptor availability is associated with reduced frontal metabolism in cocaine abusers. *Synapse* 14:169-177, 1993.

### The Memory of Drugs



Photo courtesy of Anna Rose Childress, Ph.D.



The good news is...

# Drug Abuse is a preventable behavior

and

# Drug Addiction is a treatable disease

Courtesy of Partnership for a Drug Free America.





... Is it worth the risk?

Photo courtesy of NIDA.





### Have you changed your mind?

Photo courtesy of NIDA. *If You Change Your Mind.* Student magazine. NIH Publication No. 93-3474, 1993.

