



**Adolescent SBIRT**  
**Screening, Brief Intervention &**  
**Referral to Treatment**

Massachusetts Department of Public Health/  
 Bureau of Substance Abuse Services

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**SBIRT – What is it?**

**National initiative to detect and intervene with patients in healthcare settings who use and abuse substances**

- **Screening:** identification of risk
- **Brief Intervention/Treatment:** provide to identified patients
- **Referral to Treatment:** for the small % who need clinical assessment/treatment

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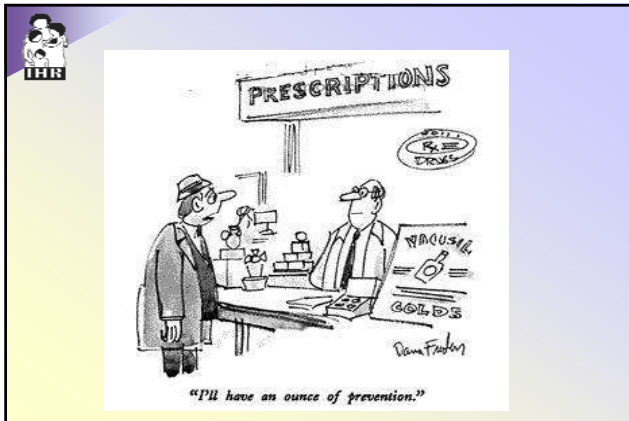
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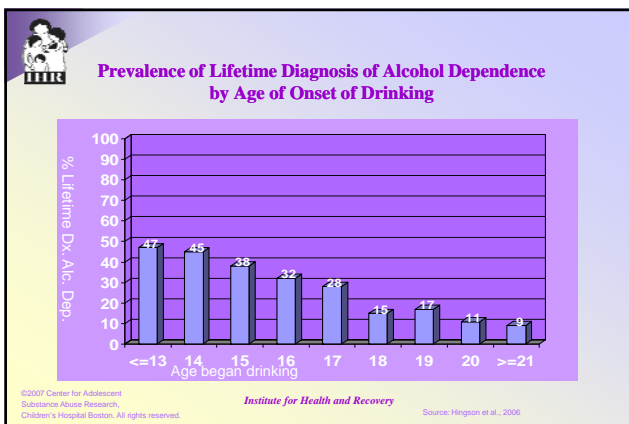
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**Risk Factors for Adolescent Substance Use**

Conflicted Relationship with Parents
Sensation Seeking Behaviors and Rebelliousness
Low School Achievement
Parental Alcohol and Drug Use
Mental Illness and other Neuro-Cognitive conditions
Feeling Marginalized
Conflict Between Parents
Child Abuse or Neglect
ATOD-Using Peer Group
Low Perception of Risk of ATOD Use: caveat!
Popularity during middle school, self-perceived or peer nominations

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## Protective Factors for Adolescent Substance Use

Affectionate Relationship with Parents
Positive and Non-Conflicted Relationship with Parents
Close Family Bonds
Parents' Clear Expectations of Responsible Behavior
School Success
Non-Using Peer Group
Clear Parental Disapproval of ATOD use
Parental Involvement in Youth's Life
Good Social Skills
High Perception of Risk of ATOD Use

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## WHAT IS A DRINK?

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### Each of these drinks has the same equivalents of pure alcohol

<p>1 bottle of wine cooler 12 oz.</p> 	<p>1 can of ordinary beer or ale 12 oz.</p> 	<p>1 single shot of spirits: whiskey, gin, vodka 1.5 oz.</p> 	<p>1 glass of wine 5 oz.</p> 	<p>1 small glass of sherry 4 oz.</p> 	<p>1 small glass of liqueur, aperitif 4 oz.</p> 	<p>1 small glass of martini 1.5 oz.</p> 
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9 oz. malt liquor

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### Maximum Drinking Limits

National Institute on Alcohol Abuse & Alcoholism (NIAAA) Recommendations:

Note medications that interact with alcohol

- Pregnant Women
  - Abstain from alcohol use
- Non-Pregnant Women (healthy & < age 65, and men > 65)
  - No more than 3/day AND 7/week
- Men (healthy & < age 65)
  - No more than 4/day AND 14/week

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### Definitions of Alcohol Use

- “Binge” drinking = Drinks on same occasion.  
Women: 4 + drinks Men: 5 +
- “Heavy” drinking = 5 or more drinks on same occasion on each of 5 or more days in past month
- “Occasion” = at the same time or within a couple of hours of each other

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### DSM IV Definition of Substance Abuse Disorder (Problem Use)

**Substance Abuse Disorders are characterized by the presence of social or health-related problems related to the person's consistent pattern of substance use:**

- recurrent substance use resulting in a failure to fulfill major role obligations
- recurrent substance use in situations in which it is physically hazardous
- recurrent substance-related legal problems
- social or interpersonal problems exacerbated by effects of substance

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## DSM IV Definition of Addiction (Substance Dependence Disorder)

**Substance Dependence is a maladaptive pattern of substance use as manifested by three or more of the following, occurring at any time in the same 12-month period:**

- tolerance
- withdrawal
- substance is often taken in larger amounts or over a longer period than was intended
- persistent desire or unsuccessful efforts to cut down or control substance use
- a great deal of time is spent in activities necessary to obtain substance
- important social, occupational or recreational activities are given up or reduced because of substance use.
- use continues despite knowledge of having a persistent or recurrent physical or psychological problem caused or exacerbated by substance.

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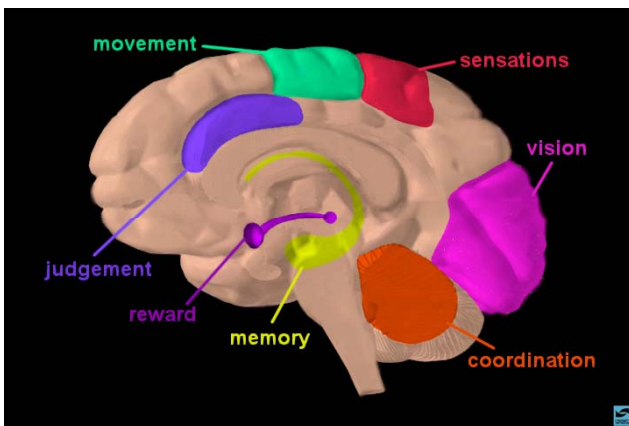
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### Parts of the Brain drive different behaviors

Over-reactive, burning emotions

Reasoning & Impulse

Not fully developed until @ 25: Impulse control a challenge

Not fully developed Until @25: Reasoning & Impulses

<http://webbrain.dmgfree.org>

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**Brains develop back to front- so what?**

These parts are shouting, but...

**Emotion!** **Motivation!**

**Physical Coordination!** **Judgment**

...this part is not quite ready to referee.

You may have noticed some of these effects:

- Difficulty holding back or controlling emotions
- A preference for physical activity
- A preference for high-excitement and low-effort activities (video games, sex, drugs, rock 'n' roll)
- Poor planning and judgment; rarely thinking of negative consequences
- More risky, impulsive behaviors, including experimenting with drugs and alcohol

<http://teenbrain.drugfree.org>

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**Developing brains may be more prone to damage**

**Memory**  
The memory center of the brain (the hippocampus) in teens who have already abused alcohol is 10% smaller than normal, and they have lower memory scores.

**Pleasure**  
Under the influence, the brain's reward circuits (the dopamine system) get thrown out of whack. This causes a teen to feel in a funk when not under the influence - and going back for more only makes things worse.

**Coping and life-skills**  
While teens are undergoing a massive growth spurt, using drugs and alcohol may disrupt their brain development in unhealthy ways, making it harder for them to cope with social situations and the normal pressures of life.

Kugel, Schrammberg, Poon & Tabor. Imaging morphological differences of Prefrontal Hippocampal subregions in humans and genetically modified mice. 2010.

<http://teenbrain.drugfree.org>

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**Substance Use and Adolescent Brains**

**Alcohol:**

- negatively impacts the memory center of the brain (the hippocampus).

**Alcohol and Other Drugs**

- may disrupt the development of the adolescent brain in unhealthy ways, making it harder for teens to cope with social situations and the normal pressures of life.
- Interferes with the brain's reward circuits (the dopamine system), causing teens to feel to feel 'in a funk' when not using drugs or alcohol - and going back for more only makes things worse.

Adapted from [www.teenbrain.drugfree.org](http://www.teenbrain.drugfree.org)

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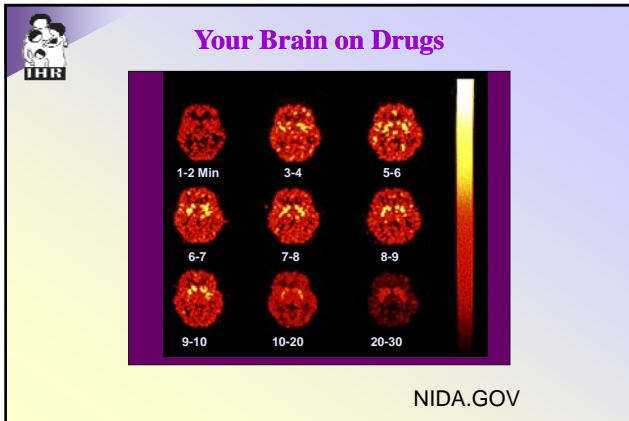
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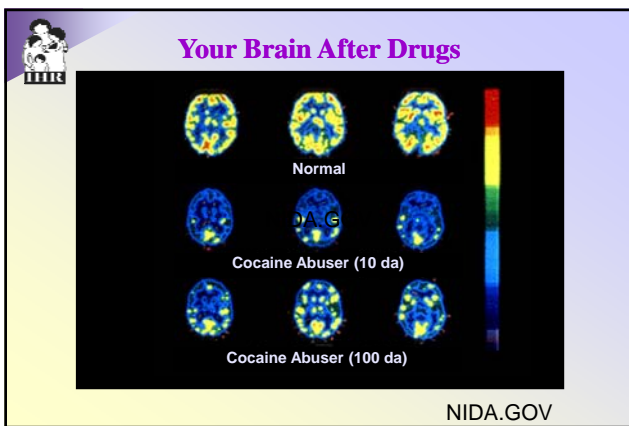
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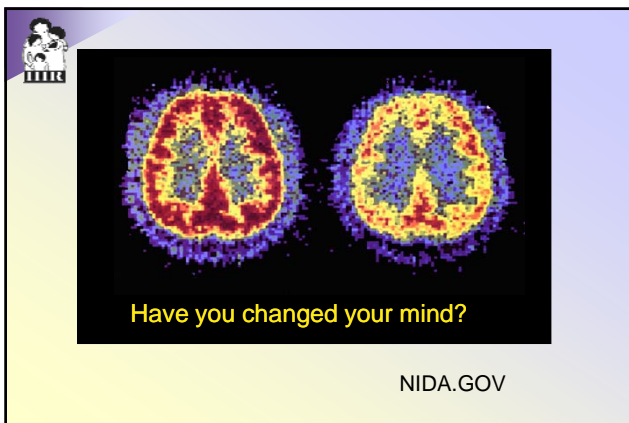
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### Adolescents are not Short Adults

- At 14-19 y.o., has more impairment of judgment and hand-eye coordination than at 20 y.o. with same dosage
- Effects are 2x-5x more impairing of performance for adolescents than with an adult of equal size
- Progression of disease is accelerated 2x-5x among adolescents than adults
- Why? Development of liver enzymes during late adolescence and early childhood

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### Alcohol and Health Risks

Early initiation and heavy drinking by adolescents and young adults is associated with **Metabolic Syndrome**, metabolic risk factors that increase the chances of developing heart disease, stroke, and type 2 diabetes. The exact cause of the syndrome is not known, but genetic factors, too much body fat, particularly in the waist, and lack of exercise increase the risk of developing the syndrome.

- increased long-term risk for heart disease
- high blood pressure
- type 2 diabetes



• Russell et al, (2080) January. [Journal of Clinical Endocrinology & Metabolism](#).

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### What substance of abuse is most toxic to fetal development?

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"Giving your unborn child a drink is just as ridiculous."



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### Areas of the Brain Affected by Prenatal Alcohol Exposure

- Cerebellum: Coordination and movement
- Frontal lobes: Cognition and memory, ability to concentrate, judgment, inhibition
- Corpus callosum:
  - Connects right and left hemispheres to allow for communication between the hemispheres
  - Correlation with impairment in verbal learning ability
- Hippocampus: Memory
- Basal ganglia: Initiation and direction of voluntary movement, agitation, loss of control of emotion

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### Diagnosing Fetal Alcohol Syndrome

- Prenatal maternal alcohol use
- Growth deficiency
- Central nervous system abnormalities
- Dysmorphic features
  - Short palpebral fissures
  - Indistinct philtrum
  - Thin upper lip



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Caucasian African American

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## Parity



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## Let's tell the kids that we just used drugs to protest the war.



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## True or False?

- Marijuana smoke contains at least 50% more cancer causing chemicals that cigarette smoke
- Most American teenagers have tried marijuana at least once
- Massachusetts has one of the highest rates of adolescent marijuana use
- A person cannot get addicted to marijuana
- Because marijuana is a plant that grows naturally, it is safe to use
- There are many treatment resources for people who want to stop using marijuana
- Marijuana can affect a person's ability to learn new information

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### What is Question 2?

- November 4, 2008: MA voters passed Ballot Question 2: “An Act Establishing a Sensible State Marihuana Policy”
- Commonly known as “Question 2”
- Makes it a civil, not a criminal, infraction to be caught in possession with <1 oz. of marijuana

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### What is Question 2?

- Penalty for **citizens 18 and older:**
  - Pay \$100 fine
- Penalty for a **youth under 18:**
  - Pay \$100 fine
  - Completion of a Drug Awareness Program
    - Four hours of a drug awareness classroom instruction
      - IHR Question 2 Staff, Jennie Whittaker, 617-661-3991
    - Ten hours of community service

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### Penalties for Non-Compliance

- Failure to complete program within 1 year of offense:
  - District Court or BMC may increase the civil penalty to as much as \$1,000
- The court is to notify the youth and the parent or guardian of a hearing to show cause why the civil penalty should not be increased to \$1,000.
- If the youth fails to complete the drug awareness program, s/he may be referred to Juvenile Court for delinquency proceedings.

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**Early Marijuana Use and Adult Dependence**

Percentage of Adults (Ages 18 or Older) Who Abused or Were Dependent on Illicit Drugs in the Past Year, by Age of First Marijuana Use, 2009

Age First Used Marijuana	Percentage
14 or Younger	12.6%
15 to 17	6.8%
18 or Older	2.1%

Adapted by CESAR from Substance Abuse and Mental Health Services Administration, Results from the 2009 National Survey on Drug Use and Health. Detailed Tables, 2010. Available online at <http://oas.samhsa.gov/2k9/2k9nsduh.htm#NSDUH10tab>.

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**Marijuana and Teen Behavior**

- Distorted perceptions
- Impaired coordination
- Difficulty in thinking/problem solving
- Problems with memory and learning
- Association between chronic MJ use and increased rates of:
  - Anxiety
  - Depression
  - Suicidal thoughts
  - Schizophrenia

ONDCP October 2010

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**Co-Occurring Disorders**

Some of the most common psychiatric disorders seen in patients with co-occurring addiction issues include:

Schizophrenia	bipolar disorder
borderline personality disorder	major depression
anxiety and mood disorders	post traumatic stress disorder
pathological gambling	sexual and eating disorders
conduct disorders	attention deficit disorder

Patients being treated for mental health disorders also often abuse the following types of substances:

Alcohol	nicotine	Opiates
Sedatives	stimulants	marijuana
hallucinogens	prescription drugs	

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## Screening: Routine and Universal



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Adolescent Screening, Brief Intervention, and Referral to Treatment for Alcohol and Other Drug Use

Using the CRAFFT Screening Tool

Helping you to keep your adolescent patients on track



Massachusetts Department of Public Health  
Bureau of Substance Abuse Services



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## CRAFFT Pre-Screening

- Ask about peer and family use of substances
- Have you ever drank alcohol?
- Have you smoked marijuana?
- Have you used any other drug to get high?

If yes to any, ask CRAFFT questions...

If no, still ask CAR question of CRAFFT

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Source: Lewin & Kolich, 2001

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## CRAFFT Questions

**C** Have you ever ridden in a CAR driven by someone (including yourself) who was "high" or had been using alcohol or drugs?"

**R** Do you ever use alcohol or drugs to RELAX, feel better about yourself, or fit in?

**A** Do you ever use alcohol/drugs while you are by yourself, ALONE?

**F** Do you ever FORGET things you did while using alcohol or drugs?

**F** Do your FAMILY or FRIENDS ever tell you that you should cut down on your drinking or drug use?

**T** Have you ever gotten into TROUBLE while you were using alcohol or drugs?

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## Contract for Life

I recognize that there are many potentially destructive decisions I face every day and commit to you that I will do everything in my power to avoid making decisions that will jeopardize my health, my safety and overall well-being, or your trust in me. I understand the dangers associated with the use of alcohol and drugs and the destructive behaviors often associated with impairment.

By signing below, I pledge my best effort to remain free from alcohol and drugs; I agree that I will never drive under the influence; I agree that I will never ride with an impaired driver; and I agree that I will always wear a seat belt.

Finally, I agree to call you if I am ever in a situation that threatens my safety and to communicate with you regularly about issues of importance to both of us.

Students Against Drunk Driving (SADD)

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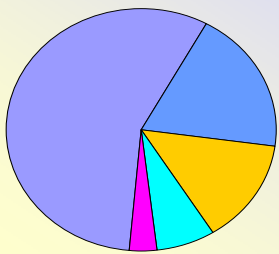
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## Estimate Distribution of Diagnostic Classification and Recommended Interventions for 12- to 18-year-old Primary Care Medical Patients (N=2133)



Abstinence	56.6%	Praise and encouragement
Non-Problematic Use	19.3%	Brief Advice (to Stop)
Problematic Use*	13.9%	Brief Advice/Counseling
Abuse*	6.9%	Brief Office-based Counseling (MET)
Dependence*	3.3%	Referral to Treatment

\*Problematic Use defined as two or more serious alcohol- or drug-related problems within the past year, and no diagnosis of abuse or dependence; abuse and dependence defined by DSM-IV diagnostic criteria.

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