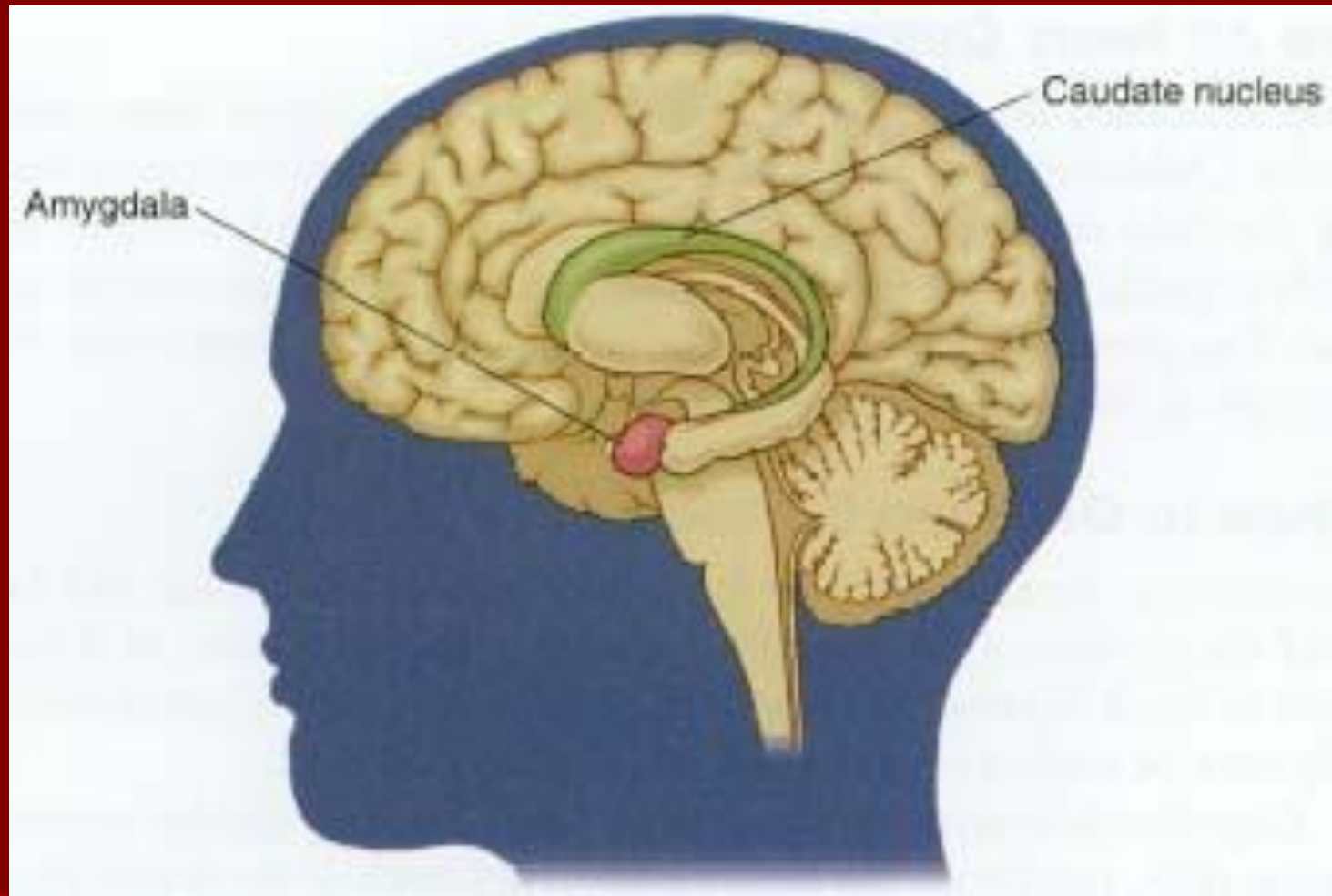




ADOLESCENCE AND
AMGYDALA





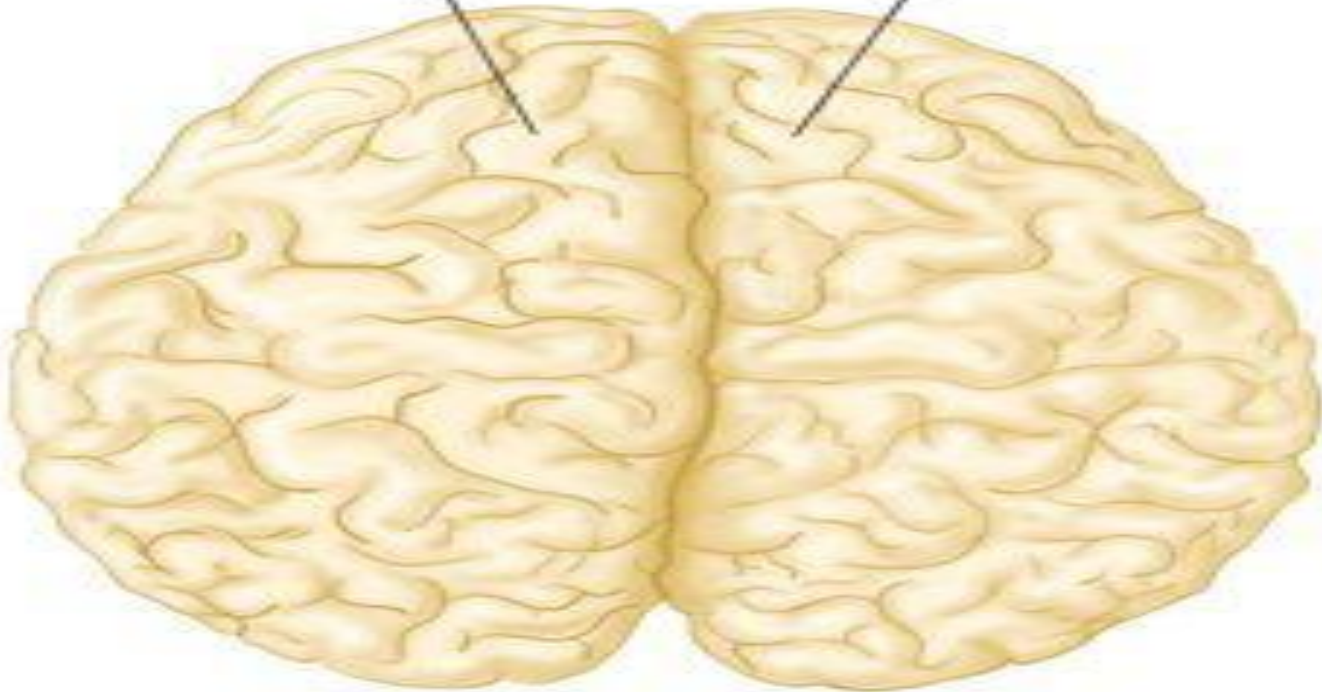


TWO HEMISPHERES

The image features a dark red background with a large, light pink diamond shape in the center. A red crayon is positioned at the top left, with a yellow squiggle extending from its tip. At the bottom right, another red crayon is shown, with a long, wavy yellow squiggle extending from its tip across the bottom of the pink diamond.

Left Hemisphere

Right Hemisphere



2 Hemispheres of the Brain

AMYGDALA FUNCTIONS

- *Processing emotions*
- *Memory of Emotional reactions*



Adolescent Psychology

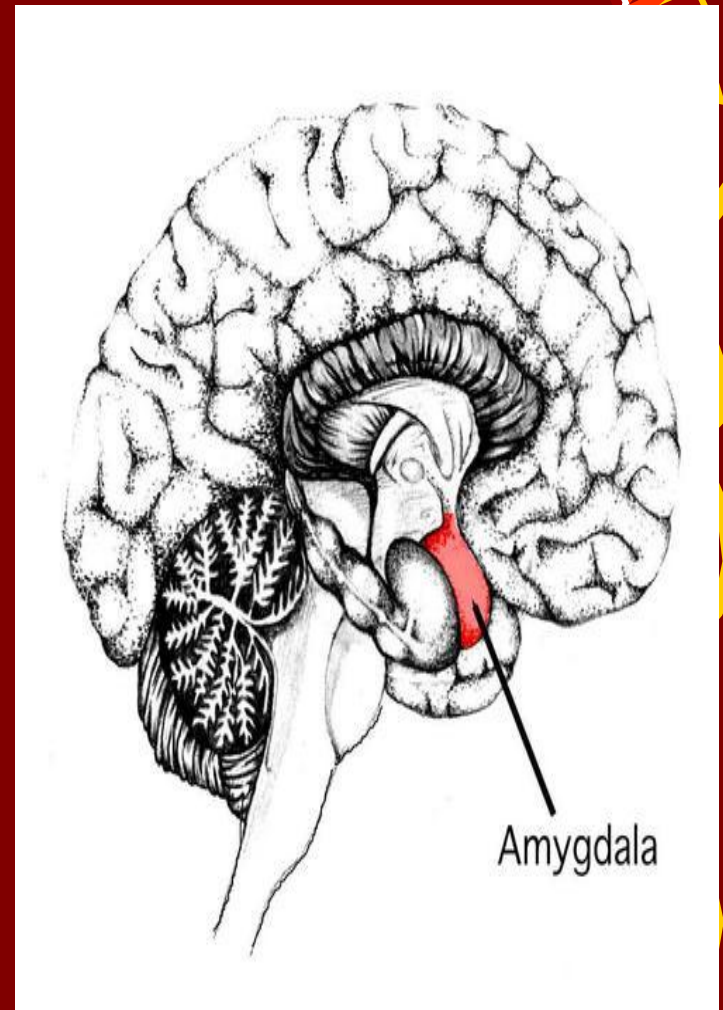
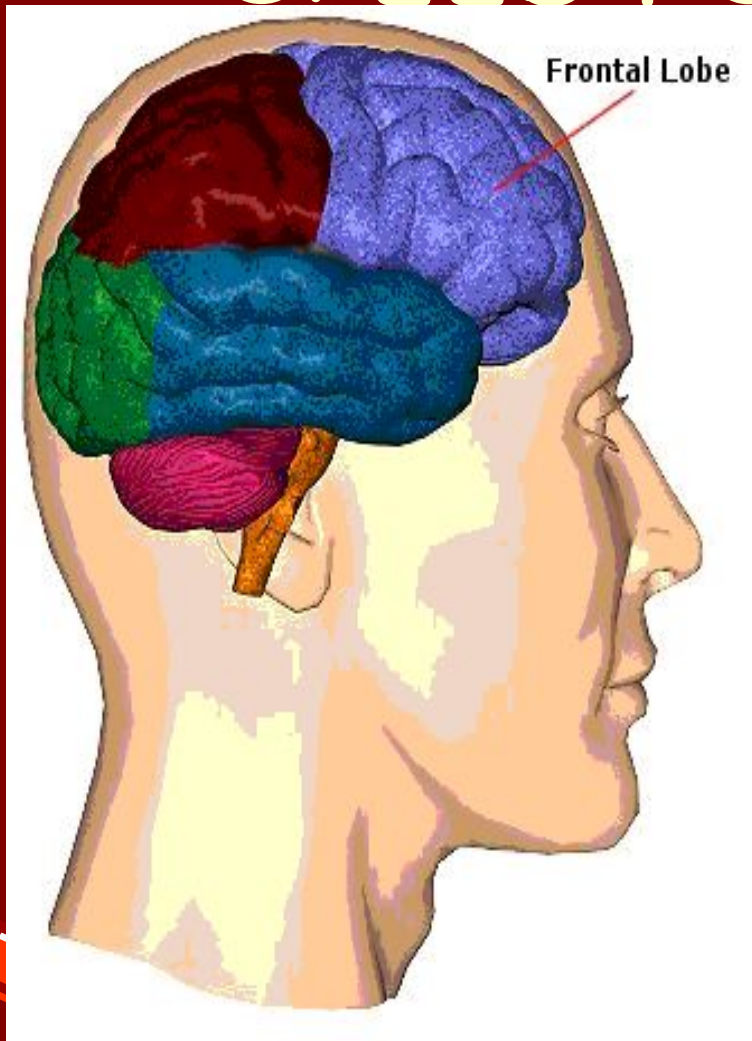
Psychological Issues



Recklessness and Risk-taking behaviour



SPEED FORMATION



SUBSTANCE ABUSE

Overindulgence in and dependence of a drug or chemicals



Alcohol Abuse



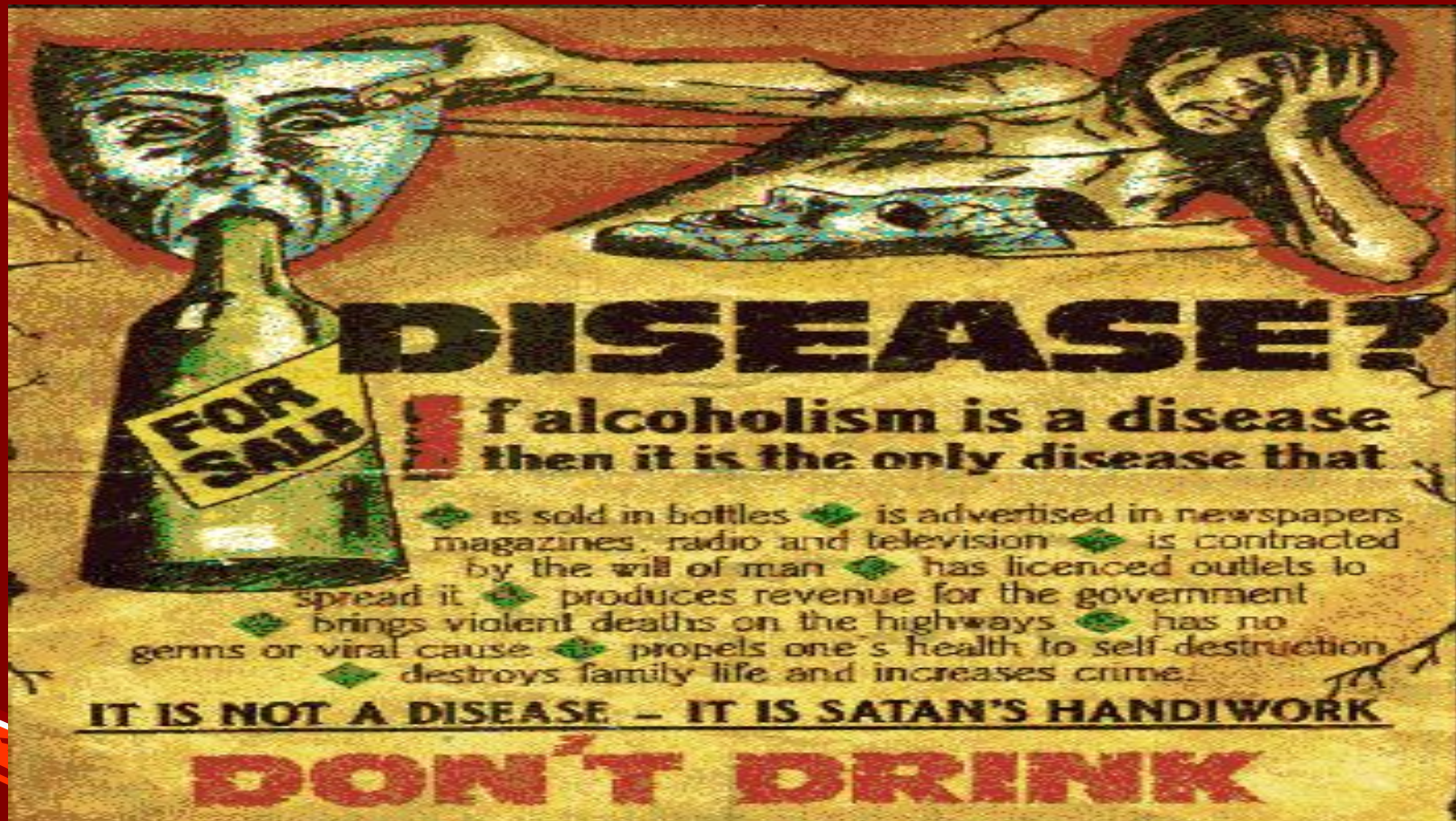
Focus

It is Drug Abuse!!



Alcohol tragedy

<http://www.youtube.com/watch?v=ZLbndJKMtCk>



Why teens start to take drugs?

- Curiosity and Experimentation
- Peer Pressure
- To Relax or to Have Fun
- Depression or Personal Problems
- Family Factors



Curiosity and Experimentation



- The desire to try something new, different
- Wanting to take risk



Peer Pressure

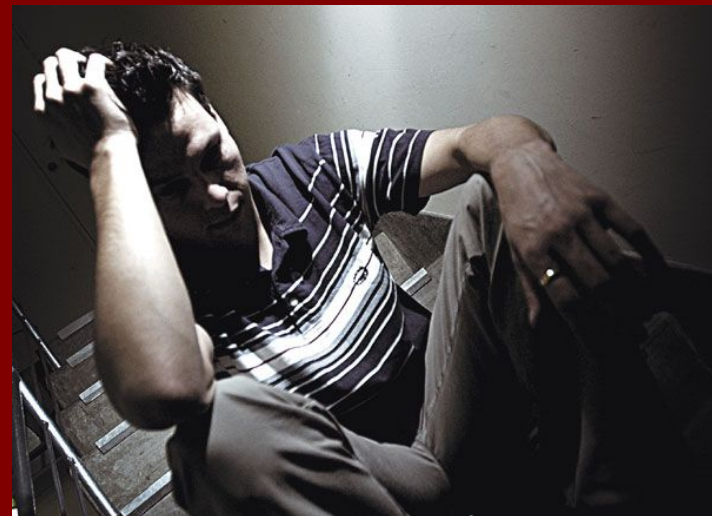
- "Most of my friends were doing it"
- Teens seek out friends who engage in similar activities
- Desire to feel a part of a group



Depression or Personal Problems



- To feel better
- To get confidence and self-esteem
- To escape from psychological or physiological pain.



Family and other factors

- Unhappy childhood
- Conflict with parents or teachers
- To rebel: Because parents said "NO"



Commonly used drugs

- Just 20% had tried cannabis
- Just 2% had tried amphetamines for non-medical reasons
- 6% had tried ecstasy
- 2% had tried inhalants (petrol, glue...)
- 2% had tried cocaine
- 0.3% had tried heroin

According to National Drug Strategy Household Survey of Australians aged 14-19 years, in 2007





Risk Taking in
Adolescence



Why Take the Risk?

- Adolescents take more risks than children or adults
 - *The crash rate per mile driven for 16-19 year-olds is 4 times the risk for older drivers.*
 - *Risk is highest at age 16.*
 - *The crash rate per mile driven is twice as high for 16 year-olds as it is for 18-19 year-olds.*

INSURANCE INSTITUTE FOR HIGHWAY SAFETY | HIGHWAY LOSS DATA INSTITUTE



Why Take the Risk?

- Adolescents and adults reason about risk in similar ways
- Educational interventions designed to change adolescents' knowledge have been ineffective



The Great
No Smoking Day
Challenge

Wednesday
12 March 2008

Can you
last a week?

Free quit pack www.nosmokingday.org.uk
Free local help 0800 169 0 169

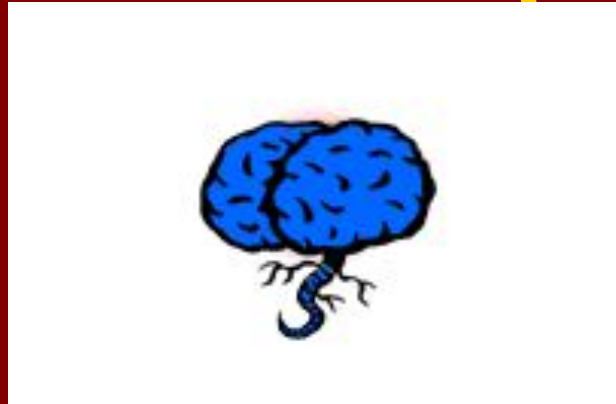
The advertisement features a target with a lit cigarette in the bullseye. The target has red and white concentric rings. The cigarette is lit, with smoke rising from the tip. The background is black.

Why Take the Risk?

Evidence from Developmental Neuroscience



- Risk taking in adolescence is the product of the interaction between two brain networks:
 - Socioemotional Network
 - Cognitive Network
- Both mature during adolescence
- Different timetables



Why Take the Risk?

Socioemotional Network

- Sensitive to social and emotional stimuli
- Important for reward processing
- Localized in limbic and Para limbic areas of the brain, *an interior region that includes the amygdala, ventral striatum, orbit frontal cortex, medial prefrontal cortex, and superior temporal sulcus.*
- Becomes more aggressive
- Driven by puberty



Why Take the Risk?

Cognitive Network

- Functions such as planning, thinking ahead, and self-regulation
- Mainly consists of outer regions of the brain, *including the lateral prefrontal and parietal cortices and those parts of the anterior cingulate cortex to which they are connected.*
- Gains strength only gradually



Why During Adolescence?

- Teenagers spend so much time with their peers
- Presence of peers makes the rewarding aspects of risky situations more significant



Why During Adolescence?

- Preference for smaller immediate rewards over larger delayed rewards
- Immediate rewards are emotionally arousing
- There has been a significant drop in the age of Pubertal Maturation over the past 200 years



How to Reduce Risk-Taking?

- Raising the price of cigarettes
- More attentively enforcing laws governing the sale of alcohol
- Expanding adolescents' access to mental-health and contraceptive services
- Raising the driving age
- Parents should introduce their own restrictions





- Limit the hours teenagers are allowed to drive
- Limit passengers in the car with a teenage driver
- Beginning drivers get supervision behind the wheel.



Teen Behavioural Problems



- **Your Teen Seems To Hate You**
 - "...Part of adolescence is about separating and individuating, and many kids need to reject their parents in order to find their own identities."
(Nadine Kaslow)
- **Communication Devices Rule Their Lives**
 - "Being networked with their friends is critical to most teens." (Goldman)





- **Staying Out Too Late**
 - "Part of what teens do is test limits, but the fact is that they actually want limits, so parents need to keep setting them." (*Goldman*)
- **Hanging Out with Kids You Don't Like**
 - "Teenagers are so attached to their friends that it's like criticizing them directly." (*Bartell*)





- **Everything's a Drama**

- "What happens is that kids feel misunderstood, and eventually they will stop telling you anything..." (*Bartell*)





Teen pregnancies

Problems to Teen Mothers:



- Left out of crowds
- Likely to drop out of school
- Poverty
- Face unemployment
- Likely to face divorce

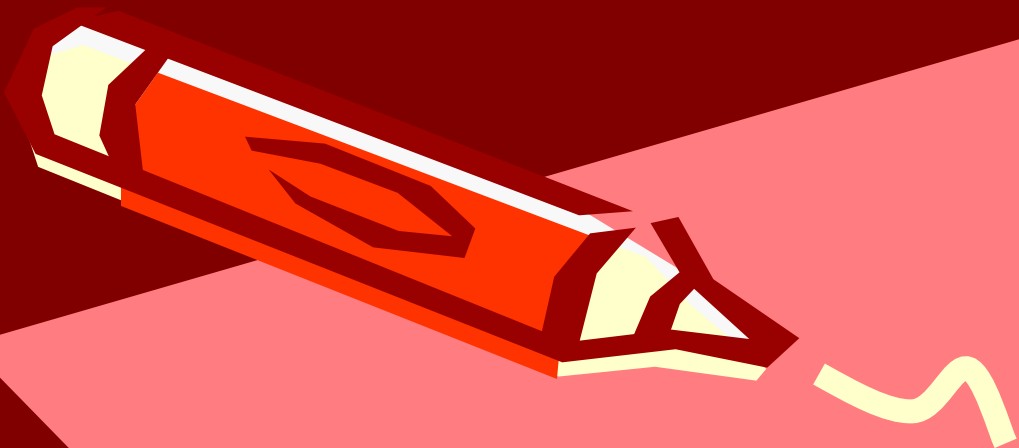


Affects the Babies Born:



- A former U.S. Surgeon General, Dr. M. Jocelyn Elders stated that, "ninety per cent of the young men in prison between [ages] 19-35 were born to teenaged mothers."





Letting out a secret

What girls like but they wont tell
boys



Girls like the chase:

- They like to be chased
- Don't be too obsessed with them
- Give them the feeling that your still interested in them



Talking opposites:

- Is they answer a question in a short phrase then there is a problem.
- Short phrase refers to "its okay" or "its fine".
- Learned response
- Done due to feeling of insignificance



Give them some time off

- They prefer it when you hang out with your "GUY" friends.
- Don't always stick to them.
- They want some time to be with their friends



They don't like it when you hang around their friends

- Fear that one of their dirty secrets might come out.
- Their friends might steal you away.
- And on the contrary would like to know your friends



Heightened jealousy

- They fear that you might cheat on them.
- They want to have other girls just because you can't have them.
- Don't compliment some other girl too much



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