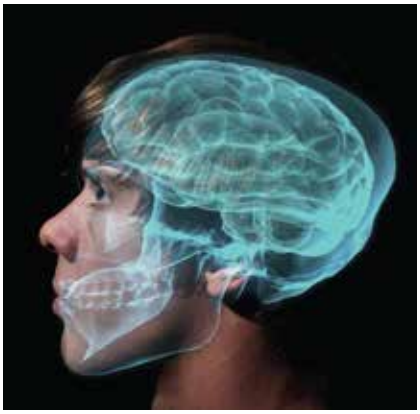
Understanding the Teen & Young-Adult Brain



The human brain is developing until about age 25. The teen brain has a strong impulse to seek pleasure and less ability to consider the consequences, so teens are especially vulnerable when it comes to the temptations of drugs and alcohol. And because their internal reward systems are still being developed, teens' ability to bounce back to normal after abusing drugs may be compromised due to how drugs affect the brain. If a person starts using drugs early in life, it can cause changes to the brain's structure and function. The brain can recover if a person stops using opioids, but that recovery can take months – or even years.

The brain is made up of billions of nerve cells. Nerves control everything by sending electrical signals throughout the body. The signals get passed from nerve to nerve by chemical messengers called neurotransmitters.

Some of the signals that neurotransmitters send cause a feeling of satisfaction or pleasure. These natural rewards are the body's way of making sure we look for more of what makes us feel good. The main neurotransmitter of the "feel-good" message is called dopamine.

The effects of drugs on the brain don't just end when the high wears off. When a person stops taking a drug, his dopamine levels are low for some time. He may feel down, or flat and unable to feel the normal pleasures in life. His brain will eventually restore the dopamine balance by itself, but it takes time – anywhere from hours, to days or even months, depending on the drug, the length and amount of abuse and the person.

4 Common Risk Factors Associated With Teen Drug & Alcohol Abuse

Several decades of research shows that some teens are more at risk for developing a substance abuse problem than other teens. Understanding risk factors is very important when a child with more risk has already experimented with substances or has a problem. Knowing the risk factors will give you a clearer picture of why certain things might have happened and how to get the right kind of treatment.

Family History: Family history of drug or alcohol problems, especially when it is the parent's history, can place a child at increased risk for developing a problem.

Mental or Behaviorial Disorder: If your child has a psychiatric condition like depression, anxiety or Attention Deficit Hyperactivity Disorder (ADHD), he or she is more at risk for developing a drug or alcohol problem.

Trauma: Children who have a history of traumatic events (such as witnessing or experiencing a car accident or natural disaster; being a victim of physical or sexual abuse) have been shown to be more at risk for substance use problems later in life.

Impulse Control Problems: Children who frequently take risks or have difficulty controlling impulses are more at risk for substance use problems.

National Institute on Drug Abuse (NIDA)