**Behavioral Objectives:** After reading this newsletter the learner will be able to:

1. Discuss four factors which contribute to adolescents being vulnerable to drug abuse.
2. Identify drugs commonly used by teens, with related signs of impairment.

**ADOLESCENT VULNERABILITY**

The sudden and rapid physical changes that adolescents experience typically cause this period of development to be one of self-consciousness, sensitivity and concern over one’s own body changes. They often make excruciating comparisons between themselves and their peers. In an effort to establish a personal identity, adolescence is a time for trying new things and testing limits. As adolescents pull away from parents, the peer group takes on a special significance.

A strong need for peer approval may cause teens to attempt hazardous feats and participating in a variety of risk-taking behaviors, including drug use.

Adolescents typically live for the “here and now” and are unable to see the consequences of their actions. They tend to act impulsively and hold the belief that they are indestructible - “it won’t happen to me.” Therefore, risk-taking behaviors, including experimentation with drugs, are common.

Teens use drugs for many reasons, including peer pressure and the need to be accepted, curiosity, rebellion, because it feels good, to feel grown up and as a means to cope with stress, including social and academic pressures.

Additionally, in today’s culture, teens are confronted with music, film and video games expressing violent and uncensored feelings, thoughts and actions. Research on substance abuse shows that teenagers are regularly exposed to alcohol, tobacco and illicit drug usage as a frequent occurrence in life.

Some teens will experiment with one or more drugs and stop, or they will continue to use occasionally, without significant problems. Others will develop a dependency, moving on to more dangerous drugs and causing significant harm to themselves and possibly others. Teenagers at high risk for developing serious alcohol and drug problems include those:
- with a family history of substance abuse.
- who feel like they don’t fit in.
- who are depressed.
- who have low self-esteem.

In the adolescent population, “raves”, a culture that encourages hard drug use as a means to personal freedom, self-discovery, and peer acceptance, are growing rapidly. In many states, these all night rave clubs are commonplace. Adolescents typically live for the “here and now” and are unable to see the consequences of their actions. They tend to act impulsively and hold the belief that they are indestructible - “it won’t happen to me.” Therefore, risk-taking behaviors, including experimentation with drugs, are common.

**COMMONLY USED SUBSTANCES**

The following substances are ranked according to prevalence of use in adolescents:

**Alcohol**: Alcohol is the drug of choice among adolescents and beer is the most common type of alcohol consumed. Parents may feel that their teen’s alcohol use is okay because it isn’t a harder drug like crack or heroine. However, alcohol kills five times more teenagers than all other drugs combined.

Annually, about 5,000 youth under age 21 die from motor vehicle crashes, other unintentional injuries, and homicides and suicides that involve underage drinking. Alcohol use tends to remove inhibitions and often causes aggressive behavior.

Binge drinking is common in this age-group. Binge drinking is generally defined as the consumption of four or more drinks for women, five or more drinks for men, in a row. It is not uncommon for adolescents to drink 12 or more beers at a party. Signs of intoxication include difficulty walking or passing out, slurred speech or speaking loudly, using foul language and being combative.

**Tobacco**: Despite national campaigns and the increased price of cigarettes, teen smoking rates are steadily increasing. The American Lung Association estimates that every minute 4,800 teens will take their first drag off a cigarette.
Of those, about two thousand will go on to be chain smokers. About 80% of adult smokers started smoking as teenagers.

Marijuana: Approximately 60 percent of adolescents who use illicit drugs use only marijuana. Of the 14.6 million teen marijuana users, approximately 4.8 million use it on 20 or more days in any given month. Marijuana use often occurs at an early age. Of teens admitted for treatment for marijuana dependence, 56 percent first used the drug by fourteen years of age, and 26 percent began by twelve years of age.

Some of the signs teenagers exhibit when using marijuana are dizziness and trouble walking, red bloodshot eyes, trouble remembering things that just happened, and they often giggle for no apparent reason. Quite often marijuana makes the teen feel very hungry and thirsty. Others may become paranoid or have feelings of anxiety.

Inhalants: Inhalant use, or the slang terms - huffing, sniffing, snorting or bagging, refers to the intentional breathing of gas or vapors with the purpose of reaching a high. Nearly seventeen million teens experiment with inhalant use. There are over one thousand common household products that can be used for intoxicating purposes. These volatile chemicals, such as toluene—an industrial solvent, and other fumes, can be inhaled and offer a rush that lasts for forty five minutes or more. These products are legal, inexpensive, and easy to get. Easy access to chemicals makes huffing a popular alternative for teens. Inhalants affect the biological and neurobiological involvement by damaging brain receptors in the neurotransmitter system.

Toluene intoxication has a presentation similar to alcohol intoxication. Additionally, the teen’s breath, as well as hair and clothing, may have a distinctive sweet smelling odor. Other signs of acute inhalant abuse include paint or stains on the face, hands or clothing. Mucosal irritation - burning mouth, throat and red eyes, is also a common finding.

Methamphetamine (meth) use, of epidemic proportions, is the drug associated with the most serious consequences, such as violence, criminal charges and deterioration of health. On the street, meth is also referred to as crank, crystal, speed, ice, and glass.

Meth is a chemical that has stimulant properties similar to adrenaline. It affects the central nervous system and is highly addictive. Meth causes increased wakefulness and physical activity while decreasing one’s appetite. A brief, intense sensation is reported by users who snort or inject the drug. Both the rush and the high are believed to result from the release of very high levels of the neurotransmitter dopamine into areas of the brain that regulate feelings of pleasure.

Initially, the effects of meth can be characterized by feelings of increased mental and physical well-being. With increased doses and/or chronic use, the risk of toxicity increases and the user may experience irritation, outbursts of anger, paranoia, delusional thinking and visual or auditory hallucinations.

Tolerance for meth can develop with chronic use. In an effort to intensify the desired effects, users will take higher doses more frequently. In many cases, abusers go without food and sleep while indulging in a form of binging known as a “run,” injecting as much as a gram every two to three hours over a several day period. This will continue until the user runs out of the drug or is too disoriented to continue. Chronic meth abuse can result in inflammation of the heart lining, as well as progressive social, academic and occupational deterioration. Psychotic symptoms can sometimes persist for months or years after use has ceased.

In the past few years, the use of this drug has increased dramatically in teenagers from 12 to 17 years old. The internet provides recipes and places to purchase ingredients. Toxic ingredients, such as battery acid and drain cleaners, are often used to produce meth.

Experimentation with crystal meth has become common for socially active young people, irrespective of their economic status and social background. We live in a society where being thin and beautiful has become increasingly important to many of our youth. One of the reasons for using meth is the misguided idea teens have regarding weight loss. Adolescents do have dramatic weight loss when using meth for any substantial length of time. Since meth decreases the appetite, the weight loss seems almost effortless. As soon as these youth stop using meth, the weight comes back on very quickly. Teens may begin an increased usage of the drug in an attempt to control their weight, as they try to live up to an impossible standard the media and advertisers portray.

MDMA, popularly known as Ecstasy, is the most available club drug and is taken for emotional release. The most likely problems bringing a teen to seek medical care after using Ecstasy are attributed to dehydration from not drinking water while under the influence of this drug. Hyperthermia and blacking out may also occur. Overdose is not likely though, as it would require a dose of about fourteen pills for the average teen. However, if that one Ecstasy pill is laced with cocaine and/or heroin, it may be lethal. The patient may present with a clenched jaw, grinding teeth, nystagmus, dry mouth and sweating. The effects of Ecstasy last three to four hours, but may be reactivated by smoking marijuana within a twenty-four hour period. Lowering of sexual inhibitions occur, as well as a lowered pain awareness.

Healthcare providers who care for teens, regardless of the setting, must be aware of the drug use epidemic among American adolescents. Accidents, overdoses and psychotic episodes may occur with drug use. Even if there is not such a crisis, assessing each young patient for signs of impairment is critical. An upcoming newsletter will discuss other drugs commonly used by adolescents, as well as implications for the healthcare professional.