

Dangerous substance

With Tatum O'Neal's drug bust making headlines, an addiction specialist sheds light on the disease

► The specialist: Dr. Yasmin Hurd

A neuroscientist who just moved back to New York from Stockholm, Dr. Hurd has been studying addiction for the past 20 years.

► The big story:

Actress and former child star Tatum O'Neal seemed to be winning her long-term battle with substance abuse until she was arrested on the lower East Side on Sunday for allegedly trying to buy crack. The news was a haunting reminder of the life-long struggles addicts face.

► Who's at risk:

Hurd is blunt and unequivocal in identifying the one group at highest risk: "For addiction disorders, the people most at risk are adolescents. Addiction usually begins when you're young and vulnerable."

There are both biological and environmental reasons that teens are at such high risk. The adolescent brain is still in formation, especially the prefrontal cortex that handles judgment and cognitive control — the prefrontal cortex isn't mature until people hit their mid-20s. Environmental factors like the availability of drugs, stress and abuse can also influence teens to experiment with drugs — and the earlier kids try drugs, the more likely they are to become addicted.

Each drug has a different pattern of abuse, but most kids start with nicotine, alcohol and marijuana. The next steps can be heroin and cocaine. For the early drugs, what Hurd calls "the gateway drugs of cannabis and nicotine," onset often starts at 12; by midadolescence, ages 14 to 16, most high-risk teens will have initiated a more serious habit.

Drug abuse differs significantly by race, according to statistics. Asians are found to be the group least likely to abuse drugs, while American Indians as a group have the highest percentage of drug abuse. "The perception is that minority groups might abuse drugs more," says Hurd, "but that is based on the fact that a higher percentage of minorities are imprisoned for drug-related crimes." She adds racial issues "break down to socioeconomic background."

► Signs and symptoms:

A person is likely addicted if he or she changes the pattern of their daily activities for the drug, prioritizing it above friends, family and job. Other signs include personality changes, no longer exercising judgment about

► What you can do:

Make use of services available

The New York City Department of Health and Mental Hygiene has great resources, available by calling 311 and on its Web site (www.nyc.gov/html/doh). The Web site has a link to a substance abuse treatment facility locator, which allows you to search for services by zip code. There are also special services available for different groups. "For adolescents, Mount Sinai has a phenomenal adolescent health center," says Hurd, "so teens can come meet doctors completely in private."

Tell somebody

A close friend or family member can help you contact a doctor and get help. "A lot of people feel alone, and worry that they'll be judged," says Hurd, but "being open to the people who love and care for you is important."



There is no magic pill that can cure addiction, says Mount Sinai neuroscientist Dr. Yasmin Hurd.

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appropriateness, changes in mood, physical signs like radical weight changes and becoming more secretive, especially about their time and what they're doing.

Often, the important thing is the percentage of time spent in these roles. "Addicts have a secretive life because they have to cover the amount of time they spend seeking the drug," says Hurd. "A lot of people hide alcohol in different places, or choose alcohols that you can't smell."

Many times their friendships start to change, as the addict hangs around new groups that prioritize drug use more than his old friends.

► Traditional treatment:

There is no quick fix cure for addiction, notes Hurd.

"When you look at the wide psychological changes that have occurred in people, you often have to treat different things," she says. "So even with a medicine that treats addiction, you're going to need behavioral intervention."

Alcoholism is probably the most studied addiction, and it has the greatest number of treatments available. There are several medicines addicts can take, including opioid antagonists, naltrexone and disulfiram, which most patients can tolerate well. These medical treatments are usually paired with behavioral therapy, which can take several forms, including group therapy (like AA), one-on-one talk therapy and family therapy. Another option is contingency management therapy, which uses positive

BY THE NUMBERS

Americans make up **4%** of the world's population, but they consume **66%** of the world's illegal drugs.

In 2005, **20** million Americans used illegal drugs; **2.6** million of those illegal drug users were teenagers.

16-20 million Americans are addicted to alcohol; **61** million are addicted to cigarettes.

1 in **4** Americans will have an alcohol or drug problem at some point in their lives.

Statistics from the National Center on Addiction and Substance Abuse

reinforcement to reward the person for getting over the addiction.

The treatment for addiction to most illegal drugs often entails treating the symptoms, primarily the depression that tends to accompany the drug abuse. Although people associate drugs with the high they produce, Hurd explains it would be more accurate to associate them with a low. "With addiction, the majority of time is spent in a negative mood state," she says. "The high is actually quite short." Very often, antidepressants are a vital part of addiction treatment.

► Research breakthroughs:

Doctors are looking at the many different scenarios under which people fall into addiction, and hope to explain why some people form addictions when others don't. There's a new emphasis on looking at addiction as a variable and individual problem. "We need to get to the point where we don't treat people as a group, but as individuals," says Hurd.

A key step toward doing this is figuring out the role of genetics. Research has made it increasingly clear that genetics have a significant impact not only on addiction risk, but also on how a patient responds to medication.

Recent studies have found that genetics determine how alcoholics respond to opiate-antagonists, and that one gene mutation correlated very strongly with heroin addiction: 90% of the test subjects with that mutation were heroin abusers.

► Questions for your doctor:

The first thing you want to ask is "Could I have an addiction?" "There are certain criteria for dependence," says Hurd, "and the doctor can help you see if you fit them."

Another important question is "What are the long-term effects this drug has on me?" Hurd notes that more men than women are drug abusers, but many abusers are women during their childbearing years — and one of the many things drug abuse can damage is fertility. Another way of forming the question is "Will this affect me when I get older?" Seriously assessing the ramifications of drug abuse can inspire addicts to seek the help they need. ♦