

# Early Intervention Needed To Deter Marijuana Use

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MIAMI — Intervene to prevent marijuana use in children as young as 8 years, a National Institute on Drug Abuse researcher suggested at the annual conference of the American Society for Addiction Medicine.

"Addiction is a developmental disease—it starts in adolescence and childhood with tobacco, THC [tetrahydrocannabinol], and alcohol," Jag H. Khalsa, Ph.D., said.

Physicians first can help children and their parents overcome the common misperception that marijuana carries much lower health risks, compared with other substances, Dr. Khalsa said. "Young people think this drug is innocuous and does not do much harm. Drug use goes up with this perception and down with the perception that it is dangerous."

Almost 20% of high school seniors smoke marijuana. Overall, 15 million Americans 12 years and older have used marijuana at least once in their lifetime, and there are 2-3 million new users each year, said Dr. Khalsa. He is chief of the medical consequences branch, division of pharmacotherapies and medical consequences of drug abuse, National Institute on Drug Abuse, Bethesda, Md. "Marijuana continues to remain the third most commonly used drug mentioned in the ER—so the consequences are significant," Dr. Khalsa said.

Among the most important adverse effects of marijuana use are the cognitive effects: impairment in cognition, short-term memory loss, and executive dysfunction. These deficits can be dose related and can persist up to 15 days, according to a NIDA-funded study (*Neurology* 2002;59:1337-43). College students who abused marijuana showed impairment in cognitive function and ability to remember simple tasks at baseline. Effects were still observed after 7 days and 15 days of abstinence, but deficits were no longer seen at day 28. "This suggests people recovered from the chronic effects of marijuana."

Chronic marijuana use also may be associated with major depression, attention-deficit/hyperactivity disorder, and aggressive behaviors in drug-dependent adolescents. Acute increases in heart rate, increased blood pressure, and cardiac output alterations are among the cardiovascular effects. Endocrine effects in humans include lower testosterone levels, decreased luteinizing hormone levels, infertility, and gynecostasia. "There are inconsistent reports, however, in the literature" regarding endocrine alterations, Dr. Khalsa said.

In addition, the immune effects are significant, he said. THC suppresses macrophages, natural killer cells, and T lymphocytes, mediated through CB2 receptors on leukocytes. "Suppression of antitumor activity makes a person more susceptible to cancer. Squamous cell carcinomas have been reported in the mouths of marijuana users," he noted.

Marijuana smoke contains approximately 50% more carcinogenic compounds than tobacco smoke. However, "sometimes it is difficult to tease out effects between the

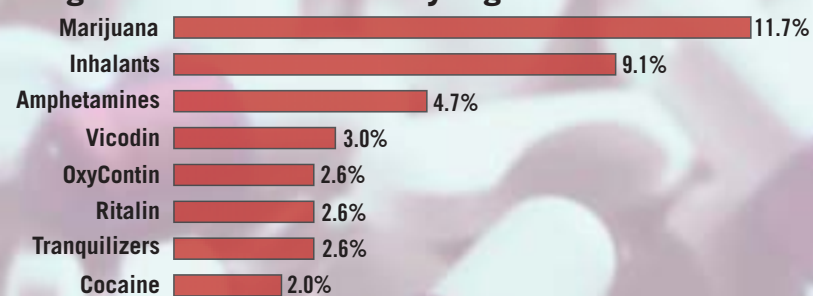
people who smoke both tobacco and marijuana over the long term," Dr. Khalsa said.

THC also can cause modest short-term bronchodilation. In addition, regular marijuana smoking leads to chronic cough and increased sputum production, he said. ■

For more information on the clinical effects of marijuana and research developments, visit [www.nida.nih.gov](http://www.nida.nih.gov).

## DATA WATCH

### Drugs Most Often Abused by Eighth Graders in 2006



Note: Prevalence based on the Monitoring the Future Study of 16,500 eighth graders. Source: University of Michigan

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*High expectations*  
*for lowering*  
very high triglycerides (≥500 mg/dL)

#### Important Safety Information:

1. LOVAZA is contraindicated in patients who exhibit hypersensitivity to any component of this medication.
2. Before instituting LOVAZA therapy, it should be confirmed that TG levels are consistently abnormal.
3. LOVAZA should be used with caution in patients with known sensitivity or allergy to fish.
4. The patient's TG, LDL-C and ALT levels should be monitored periodically during LOVAZA therapy. In some patients, LOVAZA increased LDL-C. LOVAZA therapy should be withdrawn in patients who do not have an adequate response after 2 months of treatment.
5. Some studies with omega-3-acids demonstrated prolongation of bleeding time, which did not exceed normal limits and did not produce clinically significant bleeding episodes. Patients receiving treatment with both LOVAZA and anticoagulants should be monitored periodically.
6. There are no adequate and well-controlled studies in pregnant women. Use LOVAZA during pregnancy only if the potential benefit justifies the potential risk to the fetus; and use with caution when administering LOVAZA to breastfeeding women.
7. LOVAZA was well-tolerated in controlled studies. The most common adverse events reported were: eructation, infection, flu syndrome, dyspepsia, rash, taste perversion, and back pain.
8. Please see full prescribing information.

References: 1. Lovaza Prescribing Information. Liberty Corner, NJ: Reliant Pharmaceuticals, Inc; 2007. 2. Data on file, Reliant Pharmaceuticals, Inc. 3. Ginsberg HN. Insulin resistance and cardiovascular disease. *J Clin Invest*. 2000;106:453-458. 4. Stalenhoef AFH, de Graaf JD, Wittekoek ME, Bredie SJH, Demacker PNM, Kastelein JJP. The effect of concentrated n-3 fatty acids versus gemfibrozil on plasma lipoproteins, low density lipoprotein heterogeneity and oxidizability in patients with hypertriglyceridemia. *Atherosclerosis*. 2000;153:129-138. 5. Garg R, Vasamreddy CR, Blumenthal RS. Non-high-density lipoprotein cholesterol: why lower is better. *Prev Cardiol*. 2005;8:173-177.



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