Don't Let 'Dusters' Get Swept Under the Carpet

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MIAMI — "Dusting," or inhaling gas from computer keyboard cleaner in order to become high, is a practice that is becoming alarmingly popular among adolescents, Dr. Robin McFee said at the annual meeting of the American College of Preventive Medicine.

Using inhalants to get high is nothing new, said Dr. McFee, a toxicologist and adolescent health expert at the State University of New York in Stony Brook, and a toxicologist at the Long Island Regional Poison & Drug Information Center. However, what is new is the use of compressed-air computer keyboard cleaners as euphoriants. Dust-Off (hence the term "dusting") and other brands of computer keyboard cleaning products are sold in pressurized cans for about $5 and contain freon propellant/refrigerants, usually difluoroethane or tetrafluoroethane. These are not regulated by the Food and Drug Administration.

Contrary to the popular perception among many teenagers, inhalants are not low risk. Even after a single use, the toxins contained in products such as Dust-Off have been associated with death. Data from cases of dusting reported to the poison control center suggest that a fifth of dusters die after their first use, Dr. McFee said.

"We can't predict who is going to die from one of these drugs," she said. "It is a Russian roulette effect," a fact that presents a challenge to health care providers who must translate the extreme dangers for an adolescent mind that thinks concretely and nonconsequentially. Long-term morbidity from acute and chronic use of inhalants includes impaired learning, labile emotion, and decreased memory. Inhalants can impair development long after the child has stopped abusing inhalants.

A common misunderstanding among teenagers is that getting high from computer keyboard cleaners is not drug abuse. "That is the perception of every adolescent that I have worked with who has dusted," Dr. McFee said. "They say that the products are air, not drugs. But they are wrong. They are inhaling a gas." That gas immediately replaces the air in the user's lungs and is rapidly absorbed, creating an anesthetic effect. The adverse effects are exerted primarily on the heart and brain.

Clinical signs associated with dusting include frostbite and asthmalike symptoms. When treating a suspected user who has pulmonary symptoms, remember that patients who use asthma medications will be more sensitive to the catecholaminergic medications that are the first-line treatment for shortness of breath and bronchospasms, Dr. McFee said in an interview.

In low concentrations, the gases in the keyboard cleaners can cause transient irritation of the eyes, nose, and throat, so frequent use of eyedrops may be a sign of dusting, Dr. McFee noted. The products also can cause headaches, heart palpitations, and light-headedness.

If enough of the gas is absorbed, it can lead to ventricular dysrhythmias, pulmonary edema, cardiac arrest, and sudden death. It's difficult to predict what dose and what frequency of dusting are lethal, Dr. McFee said.

Dr. McFee presented data collected by the Long Island Regional Poison & Drug Information Center that showed a total of 34 cases of poisoning caused by inhaling Dust-Off or a similar product. Five cases per year were reported from 2000 to 2004, but that number nearly doubled to nine cases in 2005 alone. The patients ranged in age from 4 to 48 years, with an average age of 17 years. Five of these dusters died, and 10% suffered significant multisystem damage as a result of dusting.

Multiply these numbers by 70 poison control centers across the country with similar data, Dr. McFee said.

"Statistics are like bikinis; what they reveal is interesting, but what they hide is essential," she said.

The numbers recorded by poison control centers do not include those who dusted but survived. They may have suffered headaches, red eyes, and vomiting, but these cases aren't reflected in public health poison control data.

Anticipatory guidance and awareness are key to preventing inhalant abuse. "We need to make the most of opportunities to identify and discuss health risks, including inhalant use," Dr. McFee said.

"Take time to be with [young patients] one on one, build a trust relationship, and provide information about inhalant use and abuse," she said in an interview. ■