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Information Bulletin: Children at Risk

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This information bulletin provides information on the risks to children who are exposed to chemicals used in the production of methamphetamine.

Your questions, comments, and suggestions for future subjects are welcome at any time. [Addresses](#) are provided at the end of the page.

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Overview

An increasing number of children in the United States are exposed to toxic chemicals because methamphetamine laboratories are being operated in or near their homes. In addition, these children often are abused or neglected by the parents, guardians, or others who operate these laboratories. The number of children found at seized methamphetamine laboratory sites in the United States more than doubled from 1999 through 2001.



A 5-year-old boy had to be decontaminated when police found a clandestine methamphetamine laboratory in his Palm Springs home in November 1999. Riverside County Fire Department/California Department of Forestry Capt. Larry Katuls leads the boy, wearing a protective suit, to a police car.

Photo courtesy of the Press Enterprise newspaper-Riverside, California

Methamphetamine laboratory sites typically contain toxic chemicals and waste as well as finished product and drug paraphernalia. Children who inhabit homes where laboratories are present often inhale dangerous chemical fumes or gases or ingest toxic chemicals or illicit drugs. Exposure to these substances can cause serious short- and long-term health problems including damage to the brain, liver, kidneys, lungs, eyes, and skin. Children whose parents or guardians produce or abuse methamphetamine also are likely to develop emotional and behavioral problems stemming from abuse or neglect. In addition, inhaling or

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ingesting toxic substances such as those present at methamphetamine laboratories may cause cancer or death.

Few areas of the country have programs in place to coordinate the social and legal aspects of cases involving children at methamphetamine laboratories; however, implementation of an effective program is possible, as illustrated by the Drug Endangered Children (DEC) program in California.

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Rates of Exposure

Most, if not all, of the children present at methamphetamine laboratories are exposed to dangerous chemicals including precursor chemicals, reagents used to convert precursor chemicals into methamphetamine, solvents, and the drug itself. The number of children present at seized methamphetamine laboratory sites increased from 950 in 1999 to 2,028 in 2001, according to the Drug Enforcement Administration (DEA) El Paso Intelligence Center (EPIC) National Clandestine Laboratory Seizure System as of May 15, 2002. In 2001 approximately 35 percent (700) of the 2,028 children found at methamphetamine laboratory sites tested positive for toxic levels of chemicals in their bodies. (See [Table 1](#).) In 2001 the states reporting the highest number of children present at methamphetamine laboratories were California (503), Washington (326), Oregon (241), and Missouri (161). These figures are recognized as underreported because many states do not keep records on children present at laboratory sites or medically evaluate them for the presence of drugs or chemicals.

Table 1. Children at Methamphetamine Laboratories

	Present at Seized Laboratories	Tested Positive for Toxic Levels of Chemicals
1999	950	150
2000	1,748	340
2001	2,028	700

Source: DEA EPIC National Clandestine Laboratory Seizure System

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Effects of Exposure

Chemicals used in methamphetamine production are extremely hazardous (see [Table 2](#)). The risk of exposure to toxic chemicals at laboratory sites may be much greater for children than for adults. Young children, unlike adults, engage in behavior that can lead to increased incidents of exposure such as placing their hands and objects in their mouths and playing on floors, tabletops, and countertops or outdoors in the dirt. Producers who operate laboratories in or near residences often produce methamphetamine using common household items including kitchen utensils, dishes, appliances, sheets, and other linens. These items may become contaminated and then fall into the hands of unsuspecting children. Toxic chemicals also frequently are discarded outdoors near areas where children play. For example, in April 2002 a methamphetamine laboratory was discovered in the bedroom of a 1-year-old child in Deville, Louisiana. According to officers from the Deville Police Department, the child was found moving about the home in a walker at the time of the raid. The infant's parents were charged with multiple drug-related crimes as well as child desertion, which includes negligent exposure of a child younger than 10 to dangerous or hazardous situations. Local authorities took custody of the child.

Table 2. Hazardous Chemicals Used in Methamphetamine Production

Chemical	Hazards
Pseudoephedrine	Ingestion of doses greater than 240 mg. causes hypertension, arrhythmia, anxiety, dizziness, and vomiting. Ingestion of doses greater than 600 mg. can lead to renal failure and seizures.
Acetone/Ethyl Alcohol	Extremely flammable, posing a fire risk in and around the laboratory. Inhalation or ingestion of these solvents causes severe gastric irritation, narcosis, or coma.
Freon	Inhalation can cause sudden cardiac death or severe lung damage. It is corrosive if

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	ingested.
Anhydrous Ammonia	A colorless gas with a pungent, suffocating odor. Inhalation causes edema of the respiratory tract and asphyxia. Contact with vapors damages eyes and mucous membranes.
Red Phosphorus	May explode on contact or friction. Ignites if heated above 260 ^o F. Vapor from ignited phosphorus severely irritates the nose, throat, lungs, and eyes.
Hypophosphorus Acid	Extremely dangerous substitute for Red Phosphorus. If overheated, deadly phosphine gas is released. Poses a serious fire and explosion hazard.
Lithium Metal	Extremely caustic to all body tissues. Reacts violently with water and poses a fire or explosion hazard.
Hydriodic Acid	A corrosive acid with vapors that are irritating to the respiratory system, eyes, and skin. If ingested, causes severe internal irritation and damage that may cause death.
Iodine Crystals	Gives off vapor that is irritating to respiratory system and eyes. Solid form irritates the eyes and may burn skin. If ingested, it will cause severe internal damage.
Phenylpropanolamine	Ingestion of doses greater than 75 mg. causes hypertension, arrhythmia, anxiety, and dizziness. Quantities greater than 300 mg. can lead to renal failure, seizures, stroke, and death.

Source: DEA Office of Diversion Control.

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The physical effects resulting from exposure to the toxic chemicals present at methamphetamine laboratories vary based on the manner in which the

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chemicals are introduced into the body. Children at methamphetamine laboratories may absorb chemicals into their bodies via ingestion, inhalation, skin contact, or accidental injection.

Although exposure most frequently results from inhalation or through contact with the skin, ingestion poses the greatest risk to a child's health. Children may ingest toxic chemicals by eating or drinking contaminated food or beverages--which may be prepared using the same kitchen utensils and appliances used for methamphetamine production--or by placing a contaminated object into their mouths. Children also have consumed various forms of methamphetamine. Ingesting toxic chemicals or methamphetamine may result in potentially fatal poisoning, internal chemical burns, damage to organ function and development, and harm and inhibition to neurological and immunologic development and functioning.

Long-Term Risks to Children

A child's developing brain and other organs are more susceptible to damage at specific maturational levels, and children may be less able to process and eliminate chemicals than adults. A child exposed to toxic chemicals may develop acute or chronic diseases such as cancer and organ damage. In addition, children who have lived in a home where methamphetamine was produced often exhibit emotional and behavioral problems that may persist indefinitely.

Source: Drug Endangered Children Program.

Inhaling chemical vapors and gases resulting from the methamphetamine production process causes shortness of breath, cough, and chest pain. Exposure to these vapors and gases may also cause intoxication, dizziness, nausea, disorientation, lack of coordination, pulmonary edema, chemical pneumonitis, and other serious respiratory problems when absorbed into the body through the lungs.

The chemicals used to produce methamphetamine may cause serious burns if they come into contact with the skin. Chemicals often are spilled onto surfaces within the household where methamphetamine laboratories are operating, and sometimes the chemicals are spilled directly onto children present in these areas.

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Many methamphetamine producers also abuse the drug, sometimes via injection. This increases the risk of a child's being injected accidentally with methamphetamine or other drugs when needles and drug paraphernalia are left within a child's reach. Contact with contaminated needles also can expose children to infectious diseases such as HIV and hepatitis.

Children at methamphetamine laboratories are at risk for other injuries as well. Some chemicals used in methamphetamine production are highly volatile and may ignite or explode if mixed or stored improperly. For example, in February 2001 Catoosa County, Georgia, authorities responded to a fire and explosion in a home. An 11-month-old infant was rushed to the hospital in critical condition with burns and other injuries. The infant passed away after several months. The parents, who were fugitives, were captured in July 2001 while attempting to purchase precursor chemicals.

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Related Abuse and Neglect

Methamphetamine producers and abusers typically become so preoccupied with the drug that they abuse or neglect their children. According to Inland Narcotics Clearing House data, nearly 70 percent of the child abuse cases reported in Riverside and San Bernardino Counties, California, during 2001 were methamphetamine-related. Children whose parents or guardians produce or abuse methamphetamine typically lack proper immunizations, medical care, dental care, and necessities such as food, water, and shelter. For example, in March 2002 Los Angeles County Sheriff's deputies found four children who were begging for food in their neighborhood in Diamond Bar, California. The deputies found that the children had been left alone in their home, which had no food, water, or electricity. The children led the deputies to a methamphetamine laboratory in the family's garage. The children frequently were present at the laboratory because they were being homeschooled in the same garage.

Strategies to Assist Children at Risk

Law enforcement authorities, prosecutors, social workers, medical

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professionals, and hazardous materials cleanup crews are increasingly aware of the serious risks faced by children who are present at methamphetamine laboratories. However, many communities have not yet implemented strategies that allow legal, social, and medical professionals to combine their resources effectively and break the cycle of child endangerment.

Butte County, California, developed a collaborative effort to improve the safety and health of children endangered by drug production, distribution, and abuse in 1993 when it initiated the Drug Endangered Children (DEC) program. DEC brings together law enforcement officers, social workers, public health nurses, and district attorneys in a cooperative effort to remove children from homes where methamphetamine is produced and to safeguard the children from further abuse and neglect.

Four-Year-Old Child Found at Methamphetamine Production Site

In March 2000 narcotics task force officers and a DEC social worker in Butte County discovered a methamphetamine laboratory at a residence while conducting a probation search. Upon arrival, they discovered a 4-year-old girl, naked, playing outdoors beside laboratory waste and a dead cat. It was discovered that her mother had been producing methamphetamine in a travel trailer located on the property. The child drew pictures and spoke clearly about a glass smoking pipe and numerous incidents of domestic violence she had witnessed in the home. The mother was arrested for manufacturing methamphetamine, maintaining a residence to manufacture, being armed in commission of a felony, and child endangerment. The child was taken to a local hospital for lab work and a physical exam where toxicology screens were positive for methamphetamine and other illicit drugs. She was infested with head lice and was suffering from infections in both ears, which required immediate medical attention. The child, who was developmentally delayed, was placed in a foster home that deals specifically with drug exposed, at-risk children.

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Source: DEC.

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The DEC program is a model by which many agencies can learn how to best address the legal, medical, and social issues associated with children present at methamphetamine laboratories and other hazardous drug production and abuse environments. A key component of the DEC program is a response team that is on call 24 hours a day. The DEC Response Team--which includes social workers, trained fire department personnel (members of the hazardous materials unit, in particular), public health nurses, and law enforcement personnel--is called upon frequently to treat and care for children found at laboratory sites and assist with the criminal investigation. The entire DEC Response Team receives specialized training regarding methamphetamine production and the circumstances specific to drug endangered children, and all personnel have experience or receive training in criminal investigations related to evidence collection in child endangerment cases.

In Butte County, California, where the DEC program was informally developed in 1993, the team has removed 80 to 100 children from drug-related endangerment situations each year since its inception and has successfully prosecuted hundreds of cases of child endangerment. Other counties in California have had similar success, and nine other states (Washington, Oregon, Idaho, Nevada, Utah, Arizona, Oklahoma, Missouri, and Illinois) have begun to replicate DEC Response Teams in their local communities. In Riverside County the DEC program was officially begun in 1999. During the initial 18 months, 33 methamphetamine laboratories were seized where children were present. Eighty-three children were taken into custody, and felony charges were filed against 75 individuals. In Orange County the DEC team has coordinated the removal of children from methamphetamine laboratories and has assisted the Orange County District Attorney's Office with charging their parents with felony child endangerment.

Due to the success of the program in California where it is now operating in 15 counties, the National Methamphetamine Chemical Initiative (NMCI) will fund the travel of DEC instructors to other states interested in starting a program. (See [DEC Points of Contact](#).)

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Outlook

The number of children present at methamphetamine laboratories, which more than doubled from 1999 through 2001, is expected to continue to increase at an even higher rate. As the number of children present at methamphetamine laboratories increases, more will suffer the physical and psychological effects associated with exposure to dangerous chemicals, and the number of related abuse and neglect cases will increase. Law enforcement agencies, medical personnel, and social workers will continue to be challenged to develop innovative solutions such as the DEC program to address this problem.

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DEC Points of Contact

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Sources

Associated Press

Catoosa County, Georgia, Sheriff's Office

Columbia University
National Center on Addiction and Substance Abuse

Department of Justice

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Drug Enforcement Administration
El Paso Intelligence Center
National Clandestine Laboratory Seizure System

Deville, Louisiana, Police Department

Drug Endangered Children Program

Inland Narcotics Clearing House (CA)

Los Angeles County Sheriff's Office

Los Angeles Times

Addresses

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Web Addresses

ADNET: <http://ndicosa>
DOJ: <http://www.usdoj.gov/ndic/>
LEO: home.leo.gov/lesig/ndic/

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