POISONING

The childhood unintentional poisoning death rate has declined over the past decade, largely due to child-resistant packaging, product reformulation, heightened parental awareness and appropriate interventions by poison control centers and health professionals. However, children continue to be at significantly greater risk than adults for unintentional poisoning, because they are smaller, have faster metabolic rates and are less able physically to handle toxic chemicals. In addition, natural curiosity and their desire to put everything in their mouths increase their poisoning risk.

Children are poisoned by household and personal care products, medicines, vitamins, plants, lead and carbon monoxide. The exposure risk to a child is associated with a product's toxicity, packaging, accessibility, availability and formulation.

POISONING DEATHS AND INJURIES

- In 2001, 96 children ages 14 and under died as a result of unintentional poisoning. Children ages 4 and under accounted for more than 45 percent of these deaths.
- In 2002, more than 1.2 million unintentional poisonings among children ages 5 and under were reported to U.S. poison control centers.
- In 2002, an estimated 111,870 children ages 14 and under were treated in hospital emergency rooms for unintentional poisoning. Nearly 80 percent of these injuries were to children ages 4 and under.

WHEN AND WHERE POISONING DEATHS AND INJURIES OCCUR

- Calls to poison control centers peak between 4 p.m. and 10 p.m. and during warmer months.
- Nearly 90 percent of all poison exposures occur in homes.

Medicine and Household Product Poisoning

- Among children ages 5 and under, 60 percent of poisoning exposures are by non-pharmaceutical products such as cosmetics, cleaning substances, plants, foreign bodies and toys, pesticides, art supplies and alcohol; 40 percent are by pharmaceuticals.
- Of the oral prescription drugs ingested by children ages 4 and under, 23 percent belong to someone who does not live with the child; 17 percent belong to a grandparent or great-grandparent.
- When dispensing over-the-counter medications to their children, only 30 percent of caregivers are able to accurately measure a correct dosage.

Lead Poisoning

- It is estimated that 890,000 children ages 1 to 5 have elevated blood lead levels high enough to affect intelligence, growth and development. Children ages 1 to 2 are at the greatest risk from lead poisoning.
- Ingesting dust from deteriorating lead-based paint is the most common cause of lead poisoning among children.
- Children are more likely to suffer elevated blood lead levels if they are low-income, receiving Medicaid, living in large metropolitan areas or living in older housing.

Carbon Monoxide Poisoning

- Each year, approximately 24 children ages 14 and under are fatally poisoned by and more than 3,500 are treated in hospital emergency rooms for exposure to CO, a colorless, odorless gas.
- The majority of CO exposures occur in the northern and midwestern states during the winter months, and the most common sources of residential, non-fire CO-related poisoning are unvented supplemental heaters.

WHO IS AT RISK

- Children ages 5 and under are at greatest risk for nonfatal poisoning, accounting for the majority of all poisoning exposures.
- Males under age 13 are more likely than females of the same age to suffer poisoning exposures and fatalities.
- Black children ages 14 and under have a poisoning death rate more than one and a half times that of white children.

POISONING PREVENTION LAWS AND REGULATIONS

- Rhode Island, West Virginia, New Jersey, New York and some local jurisdictions have passed legislation requiring the use of CO detectors in some homes. Texas enacted legislation that requires the installation of CO detectors in certain childcare facilities.
- The Poison Control Center Enhancement and Awareness Act of 2000 provided funding to establish a national toll-free phone number for poison control center services (1-800-222-1222), implement a national educational campaign and financially stabilize regional poison control centers.

POISONING PREVENTION EFFECTIVENESS

- Child-resistant packaging of prescription medications is effective in reducing the poisoning mortality rate among children ages 4 and under. An estimated 460 deaths among children ages 4 and under were prevented from 1974 through 1992, a 45 percent reduction in the mortality rate from levels predicted without child-resistant requirements. In particular, the use of child-resistant packaging was associated with a 34 percent reduction in the aspirin-related child death rate.
- Of cases reported to poison control centers, 76 percent are managed in a non-health care facility (e.g., site of exposure, the home).
- When used under medical advice, activated charcoal can reduce the likelihood of severe poisoning, decrease the costs of a poisoning incident and prevent the need for a hospital emergency room visit.
- In the 15 years following intensive efforts to reduce lead in consumer products such as gasoline and paint, a nearly 80 percent decline in elevated blood lead levels among children ages 1 to 5 was observed.
- CO detectors are effective in preventing residential CO poisoning. It is estimated that CO detectors may prevent half of such deaths.

HEALTH CARE COSTS AND SAVINGS

- The total annual cost of poisoning-related death and injury among children ages 14 and under is more than $21.8 billion.
- The average cost of hospital treatment for a poisoning exposure is $8,700.
- Every dollar spent on poison control centers saves this country $7 in medical costs.

PREVENTION TIPS

- Store all household products and medications locked out of children's sight and reach. Never leave potentially poisonous household products unattended while in use.
- List the toll-free nationwide poison control center number (1-800-222-1222) and other emergency medical service numbers near *every* telephone. Keep activated charcoal on hand to be used only on the advice of a poison control center or a physician.
- Always read labels, follow directions and give medicines to children based on their weights and ages. Only use the dispenser that comes packaged with children's medications.
- Test children for lead exposure, and test homes built before 1978 for lead-based paint. Cover lead paint with a sealant or hire a professional abatement company to remove the paint. Frequently wash children's hands and faces, as well as their toys and pacifiers, to reduce the risk of ingesting lead-contaminated dust.
- Install CO detectors in your home in every sleeping area, on the ceiling at least 15 feet from fuel-burning appliances. Ensure that space heaters, furnaces, fireplaces and wood-burning stoves are vented properly and inspected annually. Remove a vehicle from the garage to warm it up, even if the garage door is kept open.

Suggested Citation: National SAFE KIDS Campaign (NSKC). Poisoning Fact Sheet. Washington (DC): NSKC, 2004.