

## **RURAL INJURY**

Children living in rural areas are at significantly greater risk of unintentional injury-related death than children living in urban areas. Agricultural injury is of particular concern because children, simply by living in the farm environment, are often exposed to such hazards as tractors, chemicals, machinery, pesticides and large animals. It may be difficult to provide constant supervision when parents are performing farming duties. In addition, children may perform work-related tasks inappropriate for their ages. Nearly one million children ages 14 and under live on farms and ranches in the United States.

### ***RURAL DEATHS AND INJURIES***

- Each year, approximately 70 children ages 14 and under die from injuries occurring on a farm. In 2001, 22,600 children were injured while living on, working on or visiting U.S. farms. Although the total number of injuries has decreased significantly in recent years, the rate of childhood farm-related injuries has only dropped slightly.
- In 2002, nearly 1,400 children ages 14 and under received hospital emergency room treatment for snowmobile-related injuries. From 1992 to 1997, at least 51 children ages 16 and under were killed in snowmobile-related incidents.
- In 2002, more than 13,400 ages 14 and under were treated in emergency rooms for equestrian-related injuries. Nearly 40 percent of equestrian injuries result in hospitalization. Head injury is the most common cause of equestrian-related death and serious injury.
- In 2002, 18 children ages 14 and under died as occupants of the beds of pickup trucks.
- Fire death rates in the most rural communities (population under 2,500) are roughly double the national rate.
- Drowning rates for all age groups are three times higher in rural areas than in urban areas.

### ***WHEN AND WHERE RURAL DEATHS AND INJURIES OCCUR***

#### ***Farm-Related Injuries***

- Nearly 40 percent of farm deaths among children are due to machinery, and another 23 percent are due to drowning. More than 40 percent of all farm machinery-related childhood deaths and 45 percent of all farm-related childhood drownings are among children ages 4 and under.
- One of every five youth injuries occurring on farms is animal-related, the majority involving horses or cattle.
- Younger children, ages 6 and under, primarily suffer injuries on the farm due to falls, large animals and close proximity to tractors. These injuries may result from a lack of adequate parental supervision and physical barriers between young children and farm hazards.
- Older children, ages 6 to 12, are more likely to suffer from mutilating farm equipment injuries that result from attempting age-inappropriate farm tasks.

#### ***Transportation-Related Injuries***

- For all ages, more than 60 percent of motor vehicle-related fatalities occur in rural areas. The difference between rural and urban fatalities has increased 27 percent from 1990 to 2001.
- Passengers involved in fatal rural crashes are nearly twice as likely to be ejected from the vehicle and 64 percent less likely to be transported to the hospital than urban passengers.
- Rural highways are more dangerous due to increased vehicle speeds, poor road conditions and insufficient access to medical response.

- Snowmobile-related injuries to children occur most frequently while being towed or when the sled or tube overturns, strikes a fixed object or is hit by another vehicle. In addition, excessive speed and operator error are primary causes of snowmobile-related injuries.

### ***Home Fire-Related Injuries***

- Use of alternative heating equipment such as wood stoves and space heaters explains much of the high rural fire-related death rate; fires in rural areas are twice as likely to be caused by heating as fires in non-rural areas. Deaths due to cooking equipment, appliances and electrical fires are also more common in rural areas.
- Remoteness and slower emergency response times are problems in detecting and extinguishing rural fires. In addition, having a higher proportion of homes made of wood makes the extent of flame damage sustained by residential structures worse in rural areas.

### ***Rural Drowning***

- Fifty-seven percent of rural drownings occur in fresh water. These include drownings in irrigation canals, ponds, rivers and lakes. The risk of drowning increases in unclear or muddy waters.

### ***WHO IS AT RISK***

- One-third to one-half of childhood agricultural injuries occur among children who do not live on farms.
- Children have a higher farm-related injury rate than adults when statistics are adjusted for time exposed. Farm injuries among children peak at age 4 and again at age 14.
- In 1998, males accounted for 80 percent of farm-related fatalities and nearly 75 percent of nonfatal farm-related injuries among children ages 15 and under. Male children ages 14 and under are more likely than females to suffer transportation-related injuries and deaths as occupants of motor vehicles, while riding in pickup truck beds and while riding on ATVs and snowmobiles.
- Blacks living in rural areas have a fire death rate 3.5 times higher and rural Native Americans a rate more than two times higher than that for rural whites.
- Children ages 14 and under are more likely to suffer head injuries when thrown from a horse if they are not wearing equestrian helmets.
- Children ages 3 and under are more likely to drown in farm ponds than older children.

### ***RURAL INJURY PREVENTION LAWS AND REGULATIONS***

- Only about 5 percent of farms in the United States are covered by safety regulations specified in the Occupational Safety and Health Act. Youths of any age may work at any time in any job on a farm owned or operated by their parents.
- Twenty-nine states and the District of Columbia have restrictions on passengers riding in pickup truck beds, but many of these laws contain huge gaps in coverage.

### ***PREVENTION TIPS***

- Do not allow children to perform farm work without supervision or when the tasks are inappropriate for the child's age, size, strength, cognitive ability or prior experience. Construct barriers to prevent children from entering hazardous areas and turn off all machinery whenever children are near. Ensure that safety shields are intact and in place on all farm machinery.
- Always use child safety seats, safety belts or both correctly every time your children ride in a motor vehicle. Restrain children ages 12 and under in the back seat and never allow anyone to ride in the bed of a pickup truck. Never allow children ages 14 and under to operate ATVs, snowmobiles or tractors. In addition, never allow extra riders on tractors, mowers, minibikes or ATVs. Children ages 5 and under should never ride on snowmobiles.
- Always supervise young horseback riders, both on and off the horse. Select a horse based on its temperament as well as the child's cognitive development and riding ability. Ensure that children always wear equestrian helmets that meet safety standards.
- Install smoke alarms on every level of your home and in every sleeping area. Ensure that heating equipment is correctly installed, and have your chimney inspected and cleaned annually.
- Install barriers around open bodies of water, and ensure that children use personal flotation devices when on or near the water.

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