

ALL-TERRAIN VEHICLE INJURY

As bigger and faster ATVs have been introduced over the past decade, ATV-related deaths and injuries have increased substantially in every age group. From 1997 to 2001, injury rates increased 23 percent for children ages 6 to 12 and 233 percent for children younger than 6.

ATVs are motorized vehicles with large, low-pressure tires. They are usually designed to carry one rider on an uneven surface and are generally used for recreation and farm, ranch and industrial work. Adult-sized ATVs have engines larger than 90cc. The average adult-sized ATV has an engine between 229cc and 649cc. These vehicles weigh between 400 and 600 pounds and can travel at speeds well above 70 miles per hour. Youth-sized ATVs come in various designs. Manufacturers' guidelines suggest that children under age 16 should operate ATVs with engines smaller than 90cc and children ages 6 to 12 should operate ATVs with engines between 70cc and 90cc.

ATV-RELATED DEATHS AND INJURIES

- In 2002, at least 44 children ages 14 and under died as a result of ATV-related injuries. Children ages 10 to 14 accounted for more than 75 percent of these deaths.
- In 2002, nearly 30,300 children ages 14 and under were treated in hospital emergency rooms for ATV-related injuries.
- ATV-related injuries are six times more likely to result in hospitalization and 12 times more likely to result in death than bicycle-related injuries.

WHEN AND WHERE ATV-RELATED INJURIES OCCUR

- Non-fatal ATV-related injuries commonly include fractured bones and head and facial injuries. In 2001, head and facial injuries accounted for 22 percent of all ATV-related injuries to children ages 14 and under.
- ATV-related injuries commonly occur due to rollovers, collisions with stationary objects and falling off the vehicle.
- The majority of ATV-related fatalities result from injuries to the head and neck.
- According to a 1997 survey, 60 percent of ATV-owning households are located in areas with populations of less than 100,000 persons. These households are more prevalent in the South and Midwest and less prevalent in the Northeast.

WHO IS AT RISK

- Males account for more than 60 percent of ATV-related deaths among children ages 14 and under.
- In 2001, 87 percent of ATV-related injuries suffered by children under 16 were caused by adult-sized ATVs. Children under 16 riding ATVs are four times more likely than ATV operators over 16 to experience an injury requiring emergency room treatment.
- Those who operate ATVs less than 25 hours a year, are under the age of 16, have less than one year of ATV experience and have ATVs with an engine 400cc or larger are at greater risk of ATV-related injuries.

ATV-RELATED PREVENTION EFFECTIVENESS

- Wearing a helmet while operating an ATV reduces the risk of fatal head injury by 42 percent and the risk of non-fatal head injury by 64 percent. However, helmets cannot protect from other common causes of ATV-related injuries such as spinal cord, thoracic and abdominal injuries and asphyxiation.

ATV SAFETY LAWS AND REGULATIONS

- Currently, 27 states have a minimum age requirement for operation of an ATV. Of these, only three states (Missouri, New Hampshire and Virginia) require ATV operators to be 16 or older.
- A recent study suggests that current legal and regulatory standards have a low probability of decreasing ATV-related deaths among children and that states should restrict the use of ATVs by children under age 16.
- In 1988, the U.S. Consumer Product Safety Commission banned the manufacture of three-wheeled ATVs, required warning labels to be placed on ATVs and issued engine-size regulations for ATVs designed for use by children under age 16.
- In 1998, ATV manufacturers assumed the responsibility of self-regulation, a method that relies on fine print in advertisements, warning labels, offers of training and policies restricting the sale of adult-sized ATVs (ATVs with engines bigger than 90 cc) for use by children under age 16.

HEALTH CARE COSTS AND SAVINGS

- The total cost of ATV-related deaths and injuries to children under age 16 amounted to more than \$500 million in 1989.
- The cost of deaths and injuries associated with ATVs is about \$3,500 per ATV sold.

PREVENTION TIPS

- Children under 6 should never ride ATVs.
- No child under 16 should operate an adult-sized all-terrain vehicle under any circumstances. If a child operates a youth-sized ATV, it should be according to the manufacturer's instructions on a machine that is an appropriate size for the child.
- To ensure safe operation, adults should supervise all children operating ATVs.
- Parents should consider a child's physical, mental and emotional maturity when deciding if the child is ready to operate a youth-sized ATV.
- Children should never operate ATVs on public roads or paved surfaces. ATVs should be operated only on designated trails.
- All youth-sized ATVs should employ throttle limiters and be equipped with identification flags.
- Personal protective equipment for ATV operators should include U.S. Department of Transportation-approved helmet with face protection, goggles (if the helmet does not have face protection), a long-sleeved shirt or jacket, long pants, non-skid boots and gloves.
- Never carry passengers on ATVs.
- Children and their parent or guardian should enroll in and successfully complete an approved ATV safety course.

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