

ATV Safety

In January of 2005 the U.S. Consumer Product Safety Commission (CPSC) estimated that all-terrain vehicles (ATVs) had been the cause of 125, 500 injuries in 2003 that required Emergency Department treatment. The year 2003 is the second consecutive record-breaking year. It is also estimated by the CPSC that ATV-related deaths were the highest ever, rising to a minimum of 621 in 2002. The age of those with the most injuries are 16 and younger.

A public health crisis has been established in this country due to the increased numbers of deaths and injuries caused by ATVs. Safety restrictions must be established and enforced by law to provide a safe environment for our community. The National Association of Orthopaedic Nurses (NAON) has been working with the Bluewater Network, The Consumer Federation of America, and the American Academy of Pediatrics to bring this issue under control.

“As nurses who initiate immediate care to patients admitted for ATV injuries, the sorrow and pain of parents and family members of ATV victims is heart wrenching. If stronger regulation of ATV safety would save the life of one young child, it would be worth it all” stated Linda Altizer, RN, from NAON Board of Directors.

Jeffrey Upperman, MD, a surgeon at Children’s Hospital in Pittsburg, PA., stated, “The number of children treated for ATV-related injuries at Children’s Hospital has more than tripled since 1998. Young children do not have the cognitive skills, are not the size or have the strength to safely drive these vehicles, and often their injuries are more severe because they are not wearing proper safety equipment, such as a helmet.”

The Children’s Safety Network has published the following statistics:

Fatal Injuries

- One-third of all ATV-related fatalities (n=5,239) from 1982 to 2002 were youth under 16 years.⁵
- Central nervous system injuries accounted for 80% of fatalities in ATV-related crashes.⁶
- From 1999 to 2001, there were 698 reported fatalities to youth ages 1-19 years from off-road vehicle crashes. Off-road vehicles include ATVs, snowmobiles, and hovercraft.⁷
- Helmets may reduce risk of death by 42%.⁸

Emergency Department (ED) Treated Injuries (Estimated)

- Youth under 16 years accounted for 37% of ATV-related injury from 1985 to 2002.⁵
- From 2000 to 2002, 103,400 youth under 16 years were treated for ATV-related injuries.⁵
- ATV operators under 16 years are nearly four times more likely than ATV operators over 16 years to experience an injury requiring emergency department treatment.⁹
- From 1995 to 2003, 404,249 youth under 20 years were injured in ATV crashes and treated for nonfatal injuries in an ED.¹⁰
- Males represent approximately three-quarters (77%) of ATV-related injuries treated in an ED from 1995 to 2003.¹⁰
- Eleven percent of injured ATV operators seen in an ED are admitted to a hospital.¹⁰
- Helmets may reduce the risk of nonfatal head injury by 64%.⁸

The Children’s Safety Network has more information at www.childrensafetynetwork.org

Some of the major statistics reported in the CPSC 2003 Annual Report on All-Terrain Vehicle (ATV) are as follows:

--Serious injuries requiring emergency room treatment increased 10% from 113,900 in 2002 to 125,500 in 2003

--The estimated number of ATV-related fatalities increased from 609 in 2001 to 621 in 2002

--In 2003, ATVs killed at least 111 children younger than 16 years of age accounting for 27% of all fatalities.

--Children under 16 suffered 38,600 serious injuries in 2003 which was 31% of all injuries. This age group received more serious injuries than any other group.

--Between 1985 and 2003, children under 16 accounted for 37% of all injuries.

The CPSC has estimated that 6.2 million four-wheel ATVs were in use in 2003, which was twice as many as five years earlier. The increase in use also increases the risk for severe injury and death. Because of this tremendous increase of injuries and fatalities, NAON, along with other organizations, have proceeded to initiate safety guidelines. Our goal is to increase patient safety and educate the community on the hazards involved with youth and ATVs. The following are potential guidelines that we are striving to initiate:

--Ban children 16 years of age and under from driving dangerous adult-size ATVs.

--Require ATV manufacturers to develop and implement safety features on each ATV, such as a roller bar and seat belt

--All ATV riders must take a safety class and adhere to guidelines i.e. helmet use

--No passengers allowed on ATVs

--Ban the use of three-wheeler ATVs

--Ban four-wheelers on public roads and streets

A family support group to comfort one another has been developed by Carolyn Anderson after losing her son in an ATV accident. Her contact information is cfmhere@comcast.net.

ATVs are looked upon by children as "toys". They are NOT toys! They are extremely hazardous and life threatening. Control must be taken soon to govern over the use of ATVs, or the death and injury rate will continue to sky rocket.

Linda Altizer, RN, MSN, ONC
NAON Director

BACKGROUND

All-terrain vehicles (ATVs) are motorized vehicles with over-sized, low-pressure tires, designed for uneven surfaces and off-highway work and recreation. ATV models can weigh up to 600 pounds¹ and reach speeds up to 75 mph. Engine size ranges from 50cc to approximately 660cc. In the U.S. there is an estimated 7 million ATVs.²

ATV USE

In 2001, 97% of youth under 16 years with ATV-related injuries were operating ATVs larger than manufacturer's recommendations.³ In 2001, the estimated number of ATV operators under 16 years increased by 13% and riders by 9%.⁴ The amount of time operators under 16 years spent on ATVs increased by 19%.⁴

INJURY EXPERIENCE

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Cost Data

Cost is calculated by estimating medical expenditure, work lost, and loss of quality of life.

- The average annual cost of nonfatal ATV-related injuries treated in an ED for youth under 17 years is over \$1.4 billion.¹¹
- Hospital admitted ATV-related injuries to youth under 17 years cost over \$5.2 million annually.¹¹
- Nearly 80% of the average annual cost of nonfatal ATV-related injuries are associated with males.¹¹

ASSOCIATED FACTORS

Factors associated with ATV-related injuries for youth under 16 years.

- No helmet use^{12,13,15}
- Poor judgment and risk-taking behaviors^{6,14}
- Male gender^{12,13,15}
- Operating an ATV larger than that recommended for their size and age³
- Lack of physical size, strength, and coordination to operate an ATV¹⁴
- Operating three-wheeled ATVs^{2,9}
- Increased driving exposure⁴
- Operating on public roads, streets, and highways¹⁶
- Riding with a passenger¹⁵

POLICY/LEGISLATION FOR PREVENTION

The U.S. Consumer Product Safety Commission (CPSC) and ATV manufacturers signed a 10-year consent decree (1989-1998) with ATV manufacturers to cease production of three-wheeled ATVs; offer safety training; prohibit sales of adult-sized ATVs to youth; promote safety warnings; and develop voluntary ATV manufacturing standards. The proportion of youth ATV-related injury did not decrease during the consent decree.¹⁴

ATV Action Plan

Participating manufacturers with CPSC agreed to a voluntary ATV Action Plan after the consent decree expired to:

- Not market or sell adult-sized ATVs for use by youth under 16 years
- Ban the manufacture and sale of three-wheeled ATVs
- Promote training and conduct safety education campaigns

Manufacturers can withdraw from the agreement with notice.

Recommended Legislation

The American Academy of Pediatrics recommends legislation in all states to:

- Prohibit use of four-wheeled off-road vehicles by youth under 16 years
- Ban sale of three-wheeled ATVs and recall all used three-wheeled ATVs¹⁷

 This fact sheet can be downloaded from the Internet,

www.childrenssafetynetwork.org.

ATV safety materials also available are: Safe ATV Operation: Frequently Asked Questions, ATV Safety Promoting Organizations, and ATV Safety Programs: Best Practices.

For more information:

Children's Safety Network

Phone: 800-662-6900

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www.childrenssafetynetwork.org

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