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NEWS

RSNA Press Release

Injury Report Shows All-Terrain Vehicles Not Child's Play

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At A Glance

- Child injuries associated with ATVs doubled over a 10-year period and account for one-third of all ATV-related injuries.
- Extremity fractures and head injuries are the most common ATV-related injuries in children.
- The ATV industry remains largely unregulated.

CHICAGO — All-terrain vehicles (ATVs) pose a serious risk of injury and even death, according to the largest study ever conducted of ATV injuries in children. The findings were presented today at the annual meeting of the Radiological Society of North America (RSNA).

"Our experience shows that children's use of ATVs is dangerous and should be restricted," said Chetan C. Shah, M.D., radiology fellow at the University of Arkansas for Medical Sciences and Arkansas Children's Hospital in Little Rock.

ATVs—motorized vehicles with large, low-pressure tires, designed for off-highway use—can weigh up to 600 pounds and travel up to 75 miles per hour. While the American Academy of Pediatrics recommends that children under the age of 16 be prohibited from operating ATVs, no laws are in place in most states. ATV accidents are seldom reported because the vehicles are unlicensed and typically operated off-road or on private land.

According to the Consumer Product Safety Commission (CPSC), ATV-related injuries in children under the age of 16 more than doubled from 1995 to 2005 with 40,400 children treated in hospital emergency rooms nationwide in 2005. This figure represents nearly one-third of all ATV-related injuries treated that year. Child fatalities resulting from ATV accidents have also nearly doubled since 1995 with 120 reported deaths in 2005.

"There is nothing 'recreational' about a trip to the emergency room," Dr. Shah said.

ATV-associated injuries can be caused by crashes, rollovers, ejections or even disregard of simple safety precautions. But according to Dr. Shah, ATV use by children is intrinsically dangerous because of the instability of the vehicles and the small size of children. While reducing the size and power of the vehicles and wearing helmets and protective clothing might limit some of the injuries, there still remains the issue of whether children should be

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riding ATVs at all.

"The question is a little like asking, 'How can we make motorcycle use safer for five-year-olds?'" Dr. Shah said. "The problem is that five-year-olds should not be using motorcycles under any circumstances."

The study included 500 consecutive children admitted to Arkansas Children's Hospital following ATV accidents. The children ranged in age from six months to 19 years (mean age 11.5 years) and included 345 boys and 155 girls. Head injuries included 85 skull fractures, 66 cases of hemorrhage and 59 brain injuries. Spinal injuries included 21 spine fractures and five spinal cord injuries. Lung injuries were present in 36 children. Injuries to the spleen, liver, kidneys or pancreas were found in 70 children. Extremity fractures occurred in 208 children with broken legs being the most common. There were 12 amputations, including nine partial foot amputations, one upper limb amputation and one below-knee amputation. There were six fatalities and several cases of long-term disabilities. The fatalities represent only the children who died at the hospital, not those who died at the accident site.

"The youngest patient in our series was a six-month-old infant who was riding with his mother. His thigh bone was fractured," Dr. Shah said. "Other patients included a two-year-old who was driving a 'child-size' ATV and had traumatic amputation of four toes, and another two-year-old driver who was found unconscious beside a flipped ATV. She had a severe brain hemorrhage that left her with permanent disability," he said.

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