

Test Your Knowledge



Q: Is it safe for kids to ride ATVs?

A: ATV use by anyone younger than 16 is not safe. To drive an ATV requires skills, such as speeding up, slowing down, and shifting weight to help turn the ATV. People under 16 are less likely to have the physical strength and decision-making experience necessary to drive an ATV safely (13).

Q: Following an ATV injury, how many children continue to ride ATV's?

A: 60% (3).

An all-terrain vehicle (ATV) is a motorized vehicle designed to work off the highway. It is an efficient vehicle for use in agricultural areas. However, ATV riding is not without risk, so take a moment to **ThinkFirst** and ride smart to reduce your risk for injury!

KNOW THE FACTS

The magnitude of the problem in numbers:

- Between 2016-2018 there were 1,591 ATV associated deaths (1).
- In 2018 there were more than 100 pediatric ATV-related fatalities and over 30,000 emergency department visits (2).
- Nearly half of ATV-related injuries and over 35% of all ATV-related deaths occur in children under 16 years of age (3).
- Children account for only 14-18% of ATV riders, but they comprise of 37-57% of those injured in ATV-related accidents (4).
- Deaths or injuries associated with ATV traumas result in a cost approaching \$1 billion (2).
- In comparison to other activities such as bicycling, ATV related injuries occur at higher rates and are more severe in nature (5,6).



Risk Factors:

- In ATV collisions 1 in 3 on-road crashes involved a collision with another vehicle, suggesting that ATVs on the road represent a potential traffic safety concern (7).
- On-road crash victims suffer more major trauma and severe brain injuries than those off-road (7).
- Nighttime crash victims were less likely to be wearing helmets and more frequently involved in a crashes as compared to daytime (8).
- Nighttime crashes are more likely to involve alcohol, to occur on the roadways, to occur on the weekends and injure passengers (8).

ATV and health consequences:

- ATV crashes can lead to catastrophic health injuries.
- ATV crashes can cause axial compression or burst type spinal injury and severe brain injury (9, 10).
- One study found that the most common injuries were those of the extremities (48%) and head and face trauma (43%) (11).

ThinkFirst about...

All-Terrain Vehicles Fast Facts

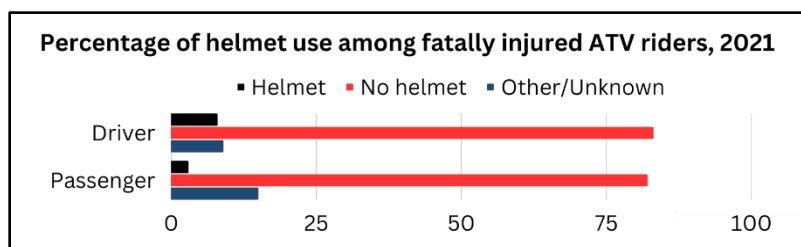
... protecting yourself and others from injury!

Risk Factors Associated with ATV Injuries (12):

- Driving without wearing a helmet or protective gear
- Driving under the influence of alcohol and/or drugs
- Young children operating adult-sized vehicles
- Speeding
- Driving while using an electronic device that can be distracting
- Driving ATVs on paved surfaces and public roads
- Having more than one person on an ATV at any given time
- Not being safety certified prior to riding an ATV
- Inexperience
- Driving while fatigued
- Driving at night

PREVENTION TIPS (13)

- Wear a helmet, eye protection, long sleeves and pants, over-the-ankle boots and gloves
- Never drive under the influence of alcohol and/or drugs
- Get safety certified prior to driving
- Always ride at a safe speed
- Only ride on trails meant for ATVs
- Do not allow passengers on the ATV as they are designed for single use



Sources:

1. Topping J. 2021 Report of Deaths and Injuries Involving Off-Highway Vehicles with More than Two Wheels. Bethesda, MD: U.S. Consumer Product Safety Commission; 2021.
2. Denning GM, Jennissen CA. Pediatric and adolescent injury in all-terrain vehicles. Res Sports Med. 2018;26(sup1):38-56.
3. Brown RL, Koeplinger ME, Mehlman CT, Gittelman M, Garcia VF. All-terrain vehicle and bicycle crashes in children: epidemiology and comparison of injury severity. J Pediatric Surg. 2002;37(3):375-80.
4. Doud AN, Moro R, Wallace SG, Smith MD, McCall M, Veach LJ, et al. All-Terrain Vehicle Injury in Children and Youth: Examining Current Knowledge and Future Needs. J Emergency Med. 2017;53(2):222-31.
5. Scutchfield SB. All-terrain vehicles: injuries and prevention. Clin Orthop Relat Res. 2003(409):61-72.
6. Nichols JC, Sorrentino A, Hayslip M, King W, Jones A, Monroe K. Pediatric injury due to wheeled recreational devices: a single-institution retrospective study. Injury Epidemiol. 2022;9(Suppl 1):44.
7. Denning G, Jennissen C, Harland K, Ellis D, Buresh C. All-terrain vehicles (ATVs) on the road: a serious traffic safety and public health concern. Traffic Injury Prev. 2013;14(1):78-85.
8. Jennissen CA, Stange NR, Fjeld A, Denning GM. The dark side of nighttime all-terrain vehicle use. Injury Epidemiol. 2021;8(Suppl 1):28.
9. Concannon E, Hogan A, Lowery A, Ryan RS, Khan W, Barry K. Spectrum of all-terrain vehicle injuries in adults: A case series and review of the literature. Int J Surg Case Rep. 2012;3(6):222-6.
10. Fiani B, Houston R, Cathel A, Pennington E, Siddiqi I, Arshad M, et al. Traumatic Spinal Injury Associated with All-Terrain Vehicle (ATV) Accidents: A 10-Year Retrospective Analysis of the Coachella Valley. Korean J Neurotrauma. 2021;17(2):108-17.
11. Adil MT, Konstantinou C, Porter DJ, Dolan S. All-Terrain Vehicle(ATV) Injuries - An Institutional Review Over 6 Years. Ulster Med J. 2017;86(2):103-7.
12. Menon P, El-Deyarbi M, Khan MA, Al-Rifai RH, Grivna M, Ostlundh L, et al. Risk factors associated with quadbike crashes: a systematic review. World J Emergency Surg. 2022;17(1):27.
13. ATV safety [Website]. Teens Health; [cited 2022 December 26]. Available from: <https://kidshealth.org/en/teens/atv-safety.html>.
14. 1996-2023, Insurance Institute for Highway Safety, Highway Loss Data Institute, 501(c)(3) organizations



ThinkFirst
National Injury Prevention Foundation

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