

IWK Position Statement: All-Terrain Vehicles

POSITION

It is the position of IWK Health that no child under the age of 16 should operate or be a passenger on an all-terrain vehicle (ATV). Youth ages 16 and older should be permitted to operate and be a passenger on an ATV if they follow strict safety requirements and adhere to provincial ATV legislation.

BACKGROUND

All-terrain vehicles (ATVs) are defined as a small motor vehicle with three or four wheels that are designed for use on various types of terrain.¹ ATVs are often used for agricultural work, but they are also commonly used for recreation and transportation. IWK Health has significant concerns regarding the use of ATVs by children and youth due to the high risk of serious injury and death.² There has also been increased rates of recreational ridership over the past 20 years, further exacerbating this issue.³

THE ISSUE

ATV incidents occur among all ages but are over-represented in children and youth ages 15 and younger.^{4,5} This is due to numerous factors, such as the capacity for ATVs to reach high speeds and the instability of the machines which can cause tipping and rollovers.^{6,7} Safety concerns specific to children are based upon the understanding that children and youth under 16 years of age do not have the physical or cognitive maturity to safely operate ATVs. They lack the physical strength required to manage these heavy vehicles, many of which weigh upwards of 300kg (661 lbs.).^{8,9} Children's motor skills are also underdeveloped, making them much less likely to be able to navigate through dangerous terrain and react appropriately if an incident were to occur.^{8,9}

In Canada, 25% of all ATV-related deaths occur in children and youth ages 15 and younger,⁸ with children and youth ages 19 and younger representing 34% of all ATV-related hospitalizations.¹⁰ Injuries that result from ATV incidents are often severe, with 20% involving some form of head trauma.¹¹ ATVs are also incredibly unstable, creating another significant threat to the safety of the rider(s). The instability of these machines can result in tipping and rollovers with these types of incidents accounting for 51% of ATV-related deaths.¹² These safety concerns do not apply solely to the ATV operator, child and youth ATV passengers can also be seriously injured or killed, even with an experienced adult operating the vehicle.

Atlantic Canada

Over the 10-year period from 2004-2013, the overall rate of ATV-related hospitalizations for those ages 0 – 14 increased an average of 1.8% annually, with an average of 35 hospital admissions per year.¹³ Furthermore, Atlantic Canada experienced 9.6 ATV-related hospitalizations out of every 100,000 people compared to the national average of 6.8 per 100,000.¹³

All provinces within Atlantic Canada have some form of ATV safety legislation. The existing legislation differs between provinces but there is no province in which legislation meets all safety criteria recommended by national groups such as Parachute and the Canadian Paediatric Society.^{5,8} A summary of each province’s legislation is listed below,¹⁴ further detail can be found on each province’s website (a link to each is included in Appendix A).

ATV Legislation Component	NB	NL	NS	PEI
Registration	Yes	Yes	Yes	Yes
Insurance	Yes	Yes*	Yes	No
Age Requirements	6+	14+	6+	14+
License	Unclear	Yes	No	Yes
Size Restrictions	Yes	Yes	Yes	Unclear
Safety Training	Yes*	Unclear	Yes*	Yes*
Safety Equipment/Gear	Yes	Yes	Yes	Yes
Passengers	Unclear	Yes	No	Unclear
Location/Time of Use	Yes*	Yes*	Yes*	Yes*
Substance Use	Yes	Yes	Yes	Yes

Yes – Legislation exists No – Legislation does not exist

* - exemptions to the regulations and/or only required for those at a younger age (14-16 years old and younger)

Nova Scotia

ATV usage is very popular in Nova Scotia, buoyed by a rural population who use ATVs mainly for recreation, transportation, and agriculture. Nova Scotia has the third largest ATV federation in Canada (ATVANS) with over 40 different clubs and 4500 registered members.¹⁵ Overall, Nova Scotia has 34,576 registered 4-wheel ATVs.¹⁶ In 2019, there were approximately 2230 new ATVs sold in the province, accounting for 5.13% of all new ATV sales in Canada.¹⁷ The rate of new sales has remained relatively steady over the past five years, but it is unclear how many of the ATVs sold were advertised as “child sized”.

The popularity of ATV use is undeniable and this, unfortunately, is reflected in the injury and death statistics for children within Nova Scotia. The rate of ATV-related hospitalizations in Nova Scotia for children and youth aged 0 – 14 is 7.7 per 100,000.¹³ This is the second highest rate in Atlantic Canada and above the national average of 6.8 per 100,000.¹³

Between January 2018 and March 2020, there were 36 children and youth ages 16 and younger who presented at the IWK Health Centre Emergency Department with ATV related injuries, 17 of these children were admitted to hospital.¹⁸ Approximately 47% of those injured were driving the ATV at the time of the incident.¹⁸

RECOMMENDATIONS

The following recommendations were developed to help support legislative change and are in accordance with a variety of medical and injury prevention organizations across Canada, such as: Parachute, Canadian Paediatric

Society, Injury Prevention Centre, Alberta Health Services and Ontario Medical Association. These recommendations are based upon current data that illustrates the high risk of serious injury and death in children and youth who use ATVs.

Provincially:

For children and youth under the age of 16:

1. Prohibit the use of ATVs for children and youth under the age of 16. This includes the use of ATVs marketed as youth sized.^{7, 8, 9, 10, 11}

While Child Safety Link endorses this prohibitive stance, we also recognize the challenges that this may pose. Therefore, provincial governments can also consider a graduated approach to ATV driver age restrictions:

- a. Allow youth aged 14 – 15 to operate ATVs provided that the youth is being closely supervised by an adult (aged 18 or older) and they follow all other relevant ATV safety regulations.¹⁹
 - b. Allow youth aged 16 and older to operate ATVs without the supervision of an adult. Drivers would still be required to follow all other relevant ATV safety regulations.¹⁹
2. Prohibit children and youth under the age of 12 from riding on ATVs as a passenger.^{19, 20}

For youth over the age of 16 (or youth 14 and older where applicable):

3. Require the completion of a government approved safety training course before any individual operates an ATV.^{10, 21, 22}
4. Require safety equipment to be worn when riding or operating an ATV. Such equipment includes: a certified helmet, eye protection, protective clothing, and footwear.^{10, 22}
5. Limit the number of riders on an ATV. The number of riders should not exceed the manufacturer's recommendations.^{10, 11, 21}
6. Require appropriate license and registration documents, as well as liability insurance, in order to operate an ATV.²³
7. Prohibit the use of ATVs after having consumed alcohol and/or other drugs.^{10, 12, 21}
8. Prohibit the use of ATVs on public roads and highways.^{10, 21}
9. Prohibit the use of ATVs between sunset and sunrise.^{10, 21}
10. Increase the allotment of resources and funding for enforcement of ATV regulations, especially in rural and remote areas.¹⁹

Federally:

11. Prohibit marketing of youth-sized ATVs as a safe option for child ATV operators.²³
12. Subject youth-sized ATVs to children's product safety regulations and monitoring.^{10, 24}
13. Require all ATVs sold in Canada to be fitted with roll protection devices prior to purchase by consumers.^{12, 21}

CONCLUSION

Use of ATVs by children and youth under the age of 16 is dangerous and can lead to severe injury or death.^{5, 8, 10, 25} Children and youth do not have the physical maturity to control a large, heavy ATV and they do not have the cognitive abilities to always make safe decisions and avoid danger.^{8, 9} Even if a child is an exceptionally skilled ATV driver, there are still inherent risks associated with these machines as ATVs are designed and used in a way that creates instability, making them prone to tipping or rollovers.^{6, 7}

Provincial and national medical and injury prevention organizations, such as Parachute and the Canadian Paediatric Society, have voiced their concerns regarding the safety of ATVs.^{5, 8, 10, 25, 26} In combination, these organizations support all recommendations highlighted in this document. Prohibiting the use of ATVs by children and youth under 16 is the most significant, impactful action that can be taken to prevent ATV-related injury and death from occurring in childhood. As ATV use continues to rise, we can only expect to see an increased number of injuries and deaths if legislative changes are not made.

Lead Department: Child Safety Link

Child Safety Link (CSL) is a child and youth injury prevention program at IWK Health dedicated to reducing the incidence and severity of unintentional childhood injuries within the Maritimes. CSL is committed to working collaboratively with local communities, government, and other partners to ensure that children are as safe as necessary on the road, at home and at play. To help achieve this mission, Child Safety Link takes an active role in advocating for healthy public policy that would result in fewer unintentional childhood injuries.

References

-
- ¹ Merriam-Webster. (2020). *All-Terrain Vehicle*. <https://www.merriam-webster.com/dictionary/all-terrain%20vehicle>
- ² Canadian Paediatric Society (2016). *Are We Doing Enough? A Status Report on Canadian Public Policy and Child and Youth Health*. https://www.cps.ca/uploads/advocacy/SR16_ENG.pdf
- ³ Krauss, E., Dyer, D., Laupland, K., & Buckley, R. (2010). Ten Years of All-Terrain Vehicle Injury, Mortality and Healthcare Costs. *The Journal of Trauma*, 69(6), 1338-1343. <http://dx.doi.org/10.1097/TA.0b013e3181fc5e7b>
- ⁴ Vanlaar, W., McAteer, H., Brown, S., Crain, J., McFaul, S., & Hing, M. (2015). Injuries Related to Off-Road Vehicles in Canada. *Accident Analysis and Prevention*, 75, 264-271. <http://dx.doi.org/10.1016/j.aap.2014.12.006>
- ⁵ Injury Prevention Committee Canadian Paediatric Society (2013). *Position Statement: Preventing injuries from All-Terrain Vehicles*. <https://www.cps.ca/en/documents/position/preventing-injury-from-atvs>
- ⁶ Bowman, S. & Aitken, M. (2010). Still Unsafe, Still in Use: Ongoing Epidemic of All-Terrain Vehicle Injury Hospitalizations among Children. *The Journal of Trauma*, 69(6), 1344-1349. <http://dx.doi.org/10.1097/TA.0b013e3181ea283d>
- ⁷ Murphy, N., & Yanchar, N. (2004). Yet More Pediatric Injuries Associated with All-Terrain Vehicles: Should Kids Be Using Them? *The Journal of Trauma*, 56(6), 1185-1190. <http://dx.doi.org/10.1097/01.TA.0000123038.94864.E2>
- ⁸ Parachute. (2019). *All-Terrain Vehicles*. <https://parachute.ca/en/injury-topic/all-terrain-vehicles/>
- ⁹ McLean, L., Russell, K., McFaul, S., Warda, L., Tenenbein, M., & McGavok, J. (2017). Age and the Risk of All-Terrain Vehicle-Related Injuries in Children and Adolescents: A Cross Sectional Study. *BMC Pediatrics*, 17(81). <http://dx.doi.org/10.1186/s12887-017-0807-y>
- ¹⁰ Canadian Paediatric Society. (2012). *Position Statement: Preventing Injuries from All-Terrain Vehicles*. <https://www.cps.ca/en/documents/position/preventing-injury-from-atvs>
- ¹¹ Canadian Paediatric Society. (2012). *Are We Doing Enough? A Status Report on Canadian Public Policy and Child and Youth Health*. https://www.cps.ca/uploads/advocacy/SR16_ENG.pdf
- ¹² Injury Prevention Centre. (2018). *Quad Injuries in Alberta: Topic Summary*. https://www.injurypreventioncentre.ca/downloads/summaries/IPC_Quad_Injuries_TS_4pg_2020.pdf

-
- ¹³ Atlantic Collaborative on Injury Prevention & Child Safety Link. (2016). *Child and Youth Unintentional Injury Hospitalizations: 10 Years in Review [2004 – 2013]*. https://childsafetylink.ca/wp-content/uploads/2018/03/Atlantic-Hospitalization-Report-2018_en-Revised-March-2018.pdf
- ¹⁴ ACIP. (2020). ATV Legislation Comparison. Unpublished data.
- ¹⁵ ATV Association of Nova Scotia. (2020). *ATVANS FAQs*. <https://atvans.wildapricot.org/FAQS>
- ¹⁶ Access Nova Scotia. (2020). Total Vehicles by Class and Body Type. Unpublished data.
- ¹⁷ Canadian Off-Highway Vehicle Distributors Council. (2019). *Motorcycle, Scooter and Off-Highway Vehicle Annual Industry Statistics Report*. <https://www.cohv.ca/wp-content/uploads/2020/08/REVISED-Annual-Industry-Report-2019.pdf>
- ¹⁸ Canadian Hospitals Injury Reporting and Prevention Program. (2020). CHIRPP ATV and Cycling Injuries. Unpublished data.
- ¹⁹ Parachute. (2022). ATV Legislative Priorities. Unpublished.
- ²⁰ Canadian Paediatric Society & Parachute. (2021). Joint Letter: Horatio’s Law. Unpublished.
- ²¹ All-terrain vehicle injury prevention: two-, three-, and four-wheeled unlicensed motor vehicles. (2000). *Pediatrics*, 105(6), 1352–1354. <http://dx.doi.org/10.1542/peds.105.6.1352>
- ²² Aitken, M., Graham, C., Killingsworth, J., Mullins, S., Parnell, D., & Dick, R. (2004). All-Terrain Vehicle Injury in Children: Strategies for Prevention. *Injury Prevention*, 10(5), 303–307. <http://dx.doi.org/10.1136/ip.2003.004176>
- ²³ Scutchfield, S. (2003). All-Terrain Vehicles: Injuries and Prevention. *Clinical Orthopaedics and Associated Research*, 409, 61–72. <http://dx.doi.org/10.1097/01.blo.0000060441.40507.3e>
- ²⁴ Jessula, S., Murphy, N., & Yanchar, N. (2017). Injury Severity in Pediatric All-Terrain Vehicle-Related Trauma in Nova Scotia. *Journal of Pediatric Surgery*, 52(5), 822–825. [10.1016/j.jpedsurg.2017.01.039](https://doi.org/10.1016/j.jpedsurg.2017.01.039)
- ²⁵ Alberta Health Services. (2015). *Position Statement on ATV Operation*. <https://www.albertahealthservices.ca/assets/healthinfo/ip/hi-ip-pipt-chc-pro-ahs-position-child-youth-atv-operators-pos.pdf>
- ²⁶ Ontario Medical Association. (2009). *All-Terrain Vehicles (ATVs) and Children’s Safety*. <https://content.oma.org/wp-content/uploads/all-terrainvehicles.pdf>

Appendix A: Provincial ATV Legislation

Nova Scotia: <https://nslegislature.ca/sites/default/files/legc/statutes/off-highway%20vehicles.pdf>

New Brunswick: https://www2.gnb.ca/content/gnb/en/services/services_renderer.200660.Off-Road_Vehicle_Requirements.html

Prince Edward Island: <https://www.princeedwardisland.ca/en/legislation/highway-vehicle-act>

Newfoundland and Labrador: <https://www.assembly.nl.ca/Legislation/sr/statutes/m20.htm>