

Caution is the key with a

An all-terrain vehicle, or ATV, is a small, lightweight (600lbs. or less) vehicle consisting of a motorcycle-type frame, engine, seat, and handlebars. The vehicle usually comes equipped with three or four wide, very soft tires. ATVs are meant for off-road use exclusively and as a result are becoming more and more common in rural Ontario. However, along with the increased popularity of the ATV, comes an alarming increase in the number of accidents, some fatal, involving these vehicles.

In Ontario, there were 28,368 ATVs registered in 1984, (the latest statistics), and seven deaths and 156 people injured in reported ATV accidents. According to an article published in the Ontario Medical Review, during that same year, doctors at the Children's Hospital of Eastern Ontario, in Ottawa, treated 63 patients from the ages of five to 17 for a number of injuries, including brain damage, single and multiple fractures, sustained while riding ATVs. As well as the suffering of patients and their families, the acute care costs for these 63 pediatric patients was about \$500,000.

There are many explanations to account for the accidents and injuries

associated with ATVs. The vehicles are designed in a way that gives them unique handling characteristics that require special driving skills for safe operation on different types of terrain. These skills are **very different** from those needed for cars, motorcycles or snowmobiles.

Some of these special design and handling characteristics contribute to the high incidence of accidents in which experienced and inexperienced drivers alike lose control of the vehicle. The ATV may then collide with another object, roll over on its side, or flip over (forward or backward) and sometimes ends up landing on the victim.

Unlike cars, most ATVs have solid rear axles that drive both rear wheels at the same speed. While this improves traction on soft ground, it also creates a tendency for the ATV to continue to go in a straight line even if the front wheel or wheels are turned. To change direction, the driver not only has to turn the handlebars but, at times, must also use his or her body to shift the weight of the machine onto the outside wheel, allowing the inside wheel to slip. At the same time, he or she must keep the ATV from rolling over completely.

Requiring skill at the best of times, turning gets even trickier when the machine is on an incline or rough ground or when high speed is involved.

Unlike vehicles with independent suspension, the ATV, with its solid rear axle, is also more vulnerable to being overturned when one rear wheel runs over mounds or depressions in the land. This vulnerability increases as the ATV is driven faster: the higher the speed, the greater the sideways inertia, the higher the wheel will lift, and the greater the tendency for the ATV to tip sideways.

As with any powerful vehicle capable of travelling at high speeds, the responsibility for the safe use of an ATV is largely up to the driver. But, unlike the driver of a car or motorcycle, the ATV driver usually does not have to meet a minimum age requirement, take a training course or possess a driver's licence.

The disproportionately high ATV accident rate is sometimes attributed to such things as vehicle misuse, inexperience or bad judgement on the part of the rider. For example, ATVs are not designed to take passengers and there is usually a warning against the practice somewhere on the vehicle, yet this is a very common misuse of the machine. Of the 163 victims of ATV accidents reported in Ontario in 1984, 35 were passengers.

Why do so many ATV operators have bad judgement? One explanation is that ATV drivers often fail to take the machine seriously; they think of the small vehicle with its oversized tires as a toy instead of the powerful, fast, and potentially lethal machine it is. Another explanation is that many of the drivers are children. According to some statistics from the United States, children under 16 made up 46 per cent of reported injuries and deaths related to ATV accidents; children under 12 accounted for 19 per cent of the injuries and 22 per cent of the deaths.



Points to remember

* Remember that both three-wheel and four-wheel ATVs can be dangerous; they are easily destabilized and many experts consider them more difficult to control than trail bikes.

* Remember that an ATV handles differently than any other vehicle and involves a lot of body movement.

* Remember that riding an ATV safely requires the constant exercise of skill and good judgement.

* Ask for and carefully read all the safety material you can get.

* Purchase safety equipment at the same time you buy an ATV. Expect

to spend at least \$400 per rider for a helmet, eye protection, heavy boots, padded pants, chest protector and gloves.

* Do not consider buying an ATV unless you can get proper hands-on training either from an experienced rider or through the Canadian All-Terrain Vehicle Distributors Council. For information on their courses write to 45 Richmond Street West, Suite 204, Toronto, M5H 1Z2 or call 416 869-3501.

* Do not allow your child to use an ATV until both of you take hands-on training.

