Public release date: 9-Jan-2006 Contact: John Murphy newsbureau@mayo.edu 507-284-5005 Mayo Clinic

Education needed to reduce snowmobile injuries in children

A Mayo Clinic study has found that snowmobile use is a significant source of multiple trauma for children and adolescents. The reinforcing study supports the American Academy of Pediatrics view that snowmobiling is an increasing source of potential injury for these age groups.

The study recommends helmet use, reduced speeds and increased state regulations to decrease injuries. Published in the January issue of Mayo Clinic Proceedings, the study looked at 43 children younger than 18 who sought treatment at Mayo Clinic in Rochester between February 1992 and December 2001 for snowmobile-related injuries.

Until now, few studies have been devoted to the pediatric snowmobiling population. However, with the number and severity of snowmobiling injuries increasing during the last decade, there has been greater attention and concern, regionally and nationwide, about possible causes. A larger number of young and inexperienced snowmobilers traveling on ever higher-powered machines and often on inappropriate terrain are potential factors, according to the study.

Most incidents involved ejection from the snowmobile, striking a stationary object or being struck by a car. The primary cause of injury was a fall or ejection. Analysis of those treated found 98 percent had orthopedic injuries; 28 percent, abdominal injuries; 19 percent, head injuries; 14 percent, thoracic injuries; 14 percent, skin lacerations; and 7 percent, facial injuries. Of patients studied, 46.5 percent had multiple injuries.

Most likely to be injured are individuals not wearing a helmet, individuals driving the snowmobile and individuals on a snowmobile traveling at 50 miles per hour or more.

Scott Zietlow, M.D., Mayo Clinic trauma surgeon and an author of the study, says, "Clearly, helmet use should be a universal requirement for operating snowmobiles. Children under 16 should not operate snowmobiles, and all should be encouraged to reduce speed. This study reinforces the American Academy of Pediatrics guidelines, published in 2000."

The health and financial costs to society of snowmobiling incidents are at an all-time high, the Mayo Clinic study notes. This includes injuries involving long-term disabilities and follow-up. As a result, in addition to the safety recommendations outlined above, study authors stress the importance of legislation and education regarding use of snowmobiles by children and adolescents.

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In addition to Dr. Zietlow, other researchers on the study included Ali Nayci, M.D., Mersin University School of Medicine, Mersin, Turkey; Penny Stavlo, Abdalla Zarroug, M.D., and Christopher Moir, M.D., from Mayo Clinic; and David Rodeberg, M.D., Children's Hospital of Pittsburgh, Penn.

A peer-review journal, Mayo Clinic Proceedings publishes original articles and reviews dealing with clinical and laboratory medicine, clinical research, basic science research, and clinical epidemiology. Mayo Clinic Proceedings is published monthly by Mayo Foundation for Medical Education and Research as part of its commitment to the medical education of physicians. The journal has been published for more than 75 years and has a circulation of 130,000 nationally and internationally. Articles are available online at http://www.mayoclinicproceedings.com/.

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Contact: John Murphy 507-284-5005 (days) 507-284-2511 (evenings) e-mail: newsbureau@mayo.edu