

New study finds water tubing-related injuries up 250 percent

February 4 2013

Water tubing, a recreational activity in which participants ride an inner tube which is pulled behind a boat by a tow rope, has grown in popularity in recent years. Unfortunately, the number of injuries related to this activity has also increased.

According to a new study by researchers at the Center for Injury Research and Policy of The Research Institute at Nationwide Children's Hospital, the annual number of water tubing-related injuries increased 250 percent over the 19-year study period, rising from 2,068 injuries in 1991 to 7,216 injuries in 2009. Given that more than 83 percent of the injuries occurred during the summer months, this equates to more than 65 water tubing-related injuries being treated in U.S. emergency departments each day during the summer.

"Water-tubing can be a fun and exciting activity," said study co-author Lara McKenzie, PhD, principal investigator in the Center for Injury Research and Policy at Nationwide Children's Hospital. "However, the increasing number of injuries is concerning and result from a participant's position on the water tube, lack of directional control and [velocity](#) and the number of riders per water tube."

The study, available online and appearing in the February 2013 print issue of the *Journal of [Physical Activity](#) & Health*, found that the most frequently injured body parts were the head (27 percent) and the upper extremities (24 percent). The most common types of injuries were sprains and strains (27 percent) followed by soft tissue injuries (20

percent). Impact with the water (49 percent) and contact with another water-tubing participant (16 percent) were the most common mechanisms of injury.

The pattern of water tubing-related injuries did, however, vary by age group. Children and adolescents under 20 years of age were more likely to sustain head injuries and to be injured as the result of contact with another person. Adults, on the other hand, were more likely to injure their knees, sustain sprains or strains, and to be injured as a result of contact with the water. Researchers speculated that the higher number of head and collision injuries among children and adolescents may be the result of this age group trying to fit multiple riders on a single tube.

"Following basic safety guidelines such as sticking to the manufacture's recommendations for the number of riders per water tube, being responsible while riding the water tube and while operating the boat and always wearing a personal flotation device can help prevent water tubing-related injuries," said Dr. McKenzie, also a faculty member at The Ohio State University College of Medicine.

Analyzing factors such as the design of water tubes, the injury patterns and safety of some of the newer tubes, the design and effectiveness of helmets designed specifically for water-tubing, and the impact of the boat- and water tube-speed can help researchers further understand [water](#) tubing-related injuries.

Data for this study were obtained from the National Electronic [Injury](#) Surveillance System (NEISS), which is operated by the U.S. Consumer Product Safety Commission. The NEISS provides information on consumer product-related and sports and recreation-related injuries treated in hospital emergency departments across the country.

Provided by Nationwide Children's Hospital

Citation: New study finds water tubing-related injuries up 250 percent (2013, February 4)
retrieved 20 April 2024 from

<https://medicalxpress.com/news/2013-02-tubing-related-injuries-percent.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.