The effects of bicycling helmets in preventing significant bicycle-related injuries in children

Finvers KA, Strother RT, Mohtadi N.
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Summary of paper (based on authors' abstract)

All children presenting to the Albert Children's Hospital Emergency Department from April 1991 to September 1993 were entered into the CHIRPP database. Standardized information collected included age and sex of child, nature, location and time of injury; whether any safety devices were being used; and the attending physician's determination of injuries and treatment rendered. Bicycle accidents resulted in 856 injuries. 13.7% of children were wearing a helmet at the time of injury. 76 serious head injuries were recorded. The risk of serious head injury was significantly greater when a helmet was not worn. There was no significant difference in serious injuries overall comparing helmeted and non-helmeted children.

General observations

Peer criticism

By Towner et al, 2002:

- No cycling exposure data presented and no clear information on population helmet wearing rates in this age group.
- The most seriously injured may be excluded as these are taken direct to the Intensive Care Unit.
- It is not clear if helmets protect against non-serious injuries.
- No numerical data presented on serious injuries to the rest of the body.
- No adjustment for possible confounding factors.
- Self-reporting of important information.
- Parents may false positive report helmet use in injured children.
- Average age (8 - 9 years) given by no standard deviation.
- Insufficient data to draw clear conclusions.

References

Towner et al, 2002


The Bicycle Helmet Research Foundation (BHRF), an incorporated body with an international membership, exists to undertake, encourage and spread the scientific study of the use of bicycle helmets. Also to consider the effect of the promotion and use of helmets on the perception of cycling in terms of risk and the achievement of wider public health and societal goals.

BHRF strives to provide a resource of best-available factual information to assist the understanding of a complex subject, and one where some of the reasoning may conflict with received opinion. In particular BHRF seeks to provide access to a wider range of information than is commonly made available by those that take a strong helmet promotion stance. It is hoped that this will assist informed judgements about the pros and cons of cycle helmets.