

ARE HELMET LAWS JUSTIFIED?

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It's a beautiful feeling to ride down the road with the wind blowing through your hair. But bareheaded cyclists often get an earful from would-be helpful passers by. When it comes to bicycle helmets, everybody has an opinion.

Researchers and cyclists have engaged, sometimes fiercely, in the helmet debate for years. Jennifer Selk's article "Jonesin' for a ride?" published last March on *The Tyee* news website, was about cruiser culture and ethical indulgences, but comments on the story soon turned into a debate about helmets.

"I don't get . . . why so many of the fashionistas riding [cruisers] won't wear a helmet," said one poster, while "It is autos that are the problem. Deal with them, not forcing the rest of us all into helmets," argued another.

To read critical analyses of research promoting helmet effectiveness visit:

Bicycle Helmet Research Foundation
www.cyclehelmets.org

Other links of organizations mentioned in this article:

Think First Foundation of Canada
www.thinkfirst.ca

BC Injury Research and Prevention Unit
www.injuryresearch.bc.ca

While many cyclists are quick to cite studies that claim the effectiveness of bicycle helmets – "I always wear a helmet, because the statistics on how they protect people from serious injury are so compelling," said Anona Thorne in response to my own online survey – we ought to look closely at the reliability of this research and its usefulness in establishing legislation.

One oft-cited and much criticized study, published in 1989 in the *New England Journal of Medicine*, claims that helmets reduce head injuries by 85 per cent. This figure is cited by ThinkFirst Foundation, a national brain and spinal cord injury organization, while the BC Injury Research and Prevention Unit claims a decreased risk of more than 70 per cent. Interestingly, other studies claim modest benefits of 39 per cent, 29 per cent, or none at all. What causes such huge discrepancies? And how do we decide what is the right thing to do?

The problem, some claim, stems from the way the research is conducted. Many of the studies favouring helmet use are case control studies. "Case control studies are... notoriously difficult to do well," states the Bicycle Helmet Research Foundation, an international body of researchers devoted to the scientific study of bicycle helmets.

The Medical Research Library of Brooklyn explains that "Case control studies are studies in which patients who already have a certain condition are compared with people who do

not." Let's say that lung cancer rates are higher for people without a college education – does this mean that someone can reduce their cancer risk just by getting a college education? "Just because there is a statistical relationship between two conditions does not mean that one condition actually caused the other."

How can researchers match a "control" group without head injuries with a "case" group with head injuries? Crashes are not the same for all cyclists, and not all crashes result in a head injury. Many other factors come into play, such as cycling skill, location, and even emotional state. It is impossible to compensate for all variables when comparing cyclists who have not suffered head injuries.

So why do researchers bother with case control studies? Because they can be done quickly by asking participants questions. But often injuries are not differentiated. Was it a head or facial injury? Was it a life-threatening or minor injury? Was it a club cyclist? Case control studies rely on self-reported data.

Many are the claims professing that "a helmet saved my life." Luis Bernhardt recalled an incident years ago where a loose front fender stay got caught by his front tire, and "completely locked up the front wheel, and the bike did a quick rotation at over 30 kilometres and hour over that wheel, sending my head into the pavement. Fortunately, I had my helmet on. Destroyed it completely, but I was able to get right up and appear lucid."

Apparently there are studies disproving this claim too. Even if your helmet broke, it isn't proof that it saved your life. Some researchers simply view this as evidence of a helmet being "a fragile piece of equipment" that splits at



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★ Recently opened "the Bike Depot" a facility designed to expand OCB's capacity to give away free bikes as well as running earn-a-bike programs for disadvantaged youth.



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low forces. Therefore, it's not effective in high impact crashes. Cycling helmets are useful in some circumstances and with some user groups – at low speeds, with no third party involvement, and with children (as they are closer to the ground). If protection is what you're looking for, you should be wearing a motorcycle helmet.

Helmeted cyclists are likely to hit their heads seven times more than non-wearers, suggests the Bicycle Helmet Research Foundation! Some cyclists tend to take greater risks because they feel they are well protected, children especially. It is interesting to note that the 70 per cent claim by the BC Injury Research and Prevention Unit is derived from a study on children aged five to 19. It is not difficult to agree that children and teens take more risks – it's in their nature – but it's misleading to put that figure on a fact sheet that seems to include the whole population.

So where does all this leave us? Studies show that cycling is by far safer than walking. In 2003, of all fatalities by road users in Canada, two per cent were cyclists and 13 per cent were pedestrians. But there are obviously more people walking than riding. Sarah, who asked that her last name be withheld, has a point when she says that "...helmets make people look like machines, and they help give the impression that cyclists are safe when riding in traffic, when really they aren't... a cyclist in a dress with hair blowing in the breeze looks vulnerable and... instinctively car drivers will grant more space to someone like that than to someone decked out in a space age helmet wearing spandex."

How do we each make a decision to wear or not to wear a helmet? Several respondents from my online survey expressed different motivations. Sheree Gable "used to wear a helmet while cycling – sometimes," but when she heard about her friend Steve's mishap cycling downhill a bit too fast, and then saw the helmet with a "fist-sized chunk" missing from it, she said to herself "I simply have to wear a helmet whenever I go cycling." For Luis Goddyn, being the wage earner of his family, a head injury "would be a disaster for several people." And Tim Shannon says, "You can't predict when you will crash. It is just as likely on the seawall as on Powell Street." Anona Thorne, previously motivated by statistics, now has a new reason for wearing a helmet – she took a fall from her bike just before this article went to press.

While we each have our own criteria for making the decision and we can choose to either observe or ignore the law, what criteria should government choose? That's where the research comes in, for better or worse. "You shouldn't legislate common sense," says Colin Brander of the Vancouver Area Cycling Coalition. When asked whether we should follow Alberta and Ontario's example, where only people 18 or younger are required to wear helmets, replied Brander, "This sends the message: 'helmets are for kids.'"

It seems to me the helmet debate should just be about common sense rather than figures for or against; as research analyses show, absolute facts are extremely difficult to obtain. This begs the question of the validity of legislation that relies on heavily disputed research.

If government is intent on promoting safety, it should consider doing so using reliable methods targeting drivers as well as bicycle riders. Drivers need to reduce speed and should be educated on sharing the road with other users. Government can help by promoting cycling skills education and encouraging more people to cycle. As the Bicycle Helmet Research Foundation reports, "For every doubling of cycle use, the risk of injury per cyclist falls by around one third."

Laura Bucci writes, knits, travels, and rides her Ditch Pig. For more see www.abovodesign.com.

This just in: Dr Ian Walker, a traffic psychologist from the University of Bath in the UK, used a bicycle fitted with a computer and an ultrasonic distance sensor to record data from over 2,500 overtaking motorists in Salisbury and Bristol. Some of the time he wore a helmet, some of it he did not. He concluded that drivers pass closer when overtaking cyclists wearing helmets than when overtaking bare-headed cyclists, increasing the risk of a collision.

TO VIEW THE PRESS RELEASE SEE: WWW.EUREKALERT.ORG/PUB_RELEASES/2006-09/UOB-WAH091106.PHP



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