# ECF HELMET FACTSHEET

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ECF believe that what a cyclist wears should be his/her own choice. We think that wearing a helmet should not be mandatory and imposed by public authorities. Cyclists typically live longer and healthier lives; serious head injuries are rare and the evidence in favour of helmet wearing and helmet laws is weak. The main effect of helmet laws has not been to improve cyclists' safety but to discourage cycling, undermining its health and other benefits. We therefore call upon authorities to:

- focus on well-established measures to promote cycling and cyclists' well-being;
- recognise that the benefits of cycling far outweigh the risks;
- refrain from promoting or enforcing helmet wearing without sound evidence that this would be beneficial and cost-effective compared to other safety initiatives

## Cycling as an active form of transport benefits society

Cycling has many benefits and, along with walking, are the only forms of everyday transport that is self-powered. Active transport has many benefits over passive forms of transport.

- Cycling has regularly been shown to be the most effective thing an individual can do to improve health and increase longevity[1]
- Cycling can help reduce congestion, tame roads and make urban areas more liveable[2]. Traffic congestion is estimated by the EU to cost 1.5% of GDP[3]
- Transport is responsible for about a quarter of the EU's greenhouse gas emissions, 71.3% of which comes from road transport[4]. Cycling has a very small carbon footprint compared to other forms of transport[5] and can be a useful tool to reverse this trend
- ECF calculate a minimum benefit of cycling to the EU economy to be between € 205.2 – 217.3 billion[6]
- As cycling numbers increase so cycling gets safer for each individual cyclist[7]; safety in numbers. This correlation holds true at national, local and even street level

In summary cycling towns are cleaner, healthier, quieter, safer and more liveable. Cycling should be promoted as a useful tool for authorities to overcome many difficult policy problems.

## The risks of cycling

Cycling is not an overly dangerous activity it is comparable to walking and to other forms of everyday activities

- The European Transport Safety Council[8] claim that within Europe the risk to the pedestrian is greater per kilometre travelled than that of the cyclist (though less in terms of time travelled, but still comparable)
- Figures taken from UK Department for Transport reports[9] show that cyclists have a similar level of fatality risk per distance travelled as pedestrians (if cyclists should wear helmets then so should pedestrians)
- Cyclists aren't especially prone to head injuries. In England head injuries from cycling account for only 7-8% of the head injuries for which children are admitted to hospitals, despite cycling being the second most common form of physical activity[10]. Of these injuries it is estimated that just a quarter were to parts of the head which might be protected by a helmet – and it is likely that some of these injuries were suffered by children who were wearing helmets[1112]
- There is approximately one cyclist death per 33 million km of cycling[13]. It would take the average cyclist 21,000 years to cycle this distance

It is then morally wrong and legally unjustifiable to pick out cycling as a high risk activity that merits mandatory helmet legislation, or for public authorities to campaign for their use.

## Do helmets reduce actual risks?

There is weak evidence that helmets are effective in reducing head injury.

- The European bicycle helmet standard is designed to test whether helmets can withstand mono-directional forces of up to around 20 kmh, in other words the sort of forces that occur when falling from a stationary bike; not for impacts with motorised transport and certainly not vehicles moving at speed
- There is much sceptical research on the efficacy of helmets in the event of an actual crash[141516]
- In Australia[17] and in Sweden[18], after the introduction of helmet legislation arm and torso injuries as a proportion of head injuries remained constant after introduction of legislation, i.e. no drop of head injuries through increased helmet use. There has however been a reduction in cyclists since introduction of the law
- Some research has shown that helmet use can actually contribute to injuries[19], for example rotational injuries[2021], risk compensation on behalf of wearers[222324], or that of other drivers[25].
- The European Commission Working Paper on Road Safety concluded, after an extensive review of the literature that "…cycle helmets are likely to prevent minor wounds to the head, but not serious, life threatening injuries."[26]
- An extensive review by the UK Department for Transport of cycle helmets did not find any conclusive real-world evidence of helmets being beneficial in reducing cyclists' injuries[27],[28]
- While some older studies report substantial safety benefits from helmet-wearing, most of these studies use a 'case-control' methodology, which is prone to yield inaccurate outcomes. Studies into hormone replacement therapy, vitamin supplements and the

MMR vaccine, using this same methodology, yielded what are now known to be false outcomes (A full roundup of these arguments can be found here)[29]

## Helmet legislation and cycling numbers

| *State/Territory* | *Falls in cycle use* |
|---|---|
| *Capital Territory* | *33% to 50%* |
| *New South Wales* | *44%-90% for children* |
| *Northern Territory* | *50% commuters 17%- 39% children* |
| *Queensland* | *22% to 30% children* |
| *South Australia* | *38% schoolchildren* |
| *Victoria* | *36% to 46% children* |
| *Western Australia* | *26% to 38% overall More than 50% children* |

*Table 1 - Helmet laws in Australia reduction of cyclists*

In all Australian jurisdictions that have put forward helmet legislation the major, distinguishing result has not been a relative decrease in head injuries but *a decrease in cycling numbers*. For example cycle use in New Zealand has dropped 55% since 1989/90[30]. Cycling in Australia has also significantly declined[31] with 37.5% fewer Australians riding bikes in 2011 than in 1985-86[32]. In fact in all states in Australia cycling numbers have dramatically fallen[33]. This has continued to this day and has even worsened when the rise in Australia's population is taken into account[34]. This has also been shown in Canada[35] and New Zealand[36]

The effect on reducing cycling numbers, other than on reducing the health benefits (see below), is the effect on road safety. More people cycling could also have a beneficial effect on the actual safety of each individual cyclist (Safety in Numbers); decreasing numbers making cycling more dangerous. [3738394041]

## Public Health Consequences of reducing cycling numbers

A model has been put forward by Piet de Jong[42] that allows us to see the effect of helmet legislation (or helmet promotion) on public health. Because of the high health benefits over accident risk, a small drop in the number of cyclists will almost always bring about a net public health *disbenefit*. If we take the health benefit over accident risk cost of cycling as 20:1[43], a commonly used figure, then a fall of only 4.7% of cycling numbers would bring about a net public disbenefit *even if helmets were 100% effective against 100% of all injuries*. If we now reduce the effectiveness of helmets to a realistic figure we need an even smaller number of cycling reduction before there is a net disbenefit. Typically there is a fall of up to 30% of cycling numbers when legislation is brought in. It would then be virtually impossible for there to be a public health benefit to legislation when so many abandon cycling, or are inhibited to take it up, after legislation.

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[2] http://www.tfl.gov.uk/assets/downloads/benefits-of-cycling-report.pdf

[3]TREMOVE and PRIMES-TREMOVE transport models (Appendix 5 of the Impact Assessment accompanying the White Paper, SEC(2011) 358)

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[6]Küster, Blondel, Calculating the economic benefits of cycling in EU-27, 2013 http://www.ecf.com/wp-content/uploads/ECF_Economic-benefits-of-cycling-in-EU-27.pdf

[7]http://www.ecf.com/wp-content/uploads/ECF_FACTSHEET4_V3_cterree_SafetyNumb.pdf

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[12] See CTC paper http://www.fiab-onlus.it/download/Cycle-helmets_brf_CTC.pdf

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[36] Most studies can be found here http://www.cycle-helmets.com/zealand_helmets.html

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