

# Expected effects of a bicycle helmet law in Norway

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Wearing a cycle helmet is voluntary in Norway. This report discusses issues related to the potential introduction of mandatory bicycle helmet legislation. Relevant issues have been identified in a literature review and by analyzing injury data. A bicycle helmet law comprising all cyclists is expected to reduce the incidence of head injury. The effects of a bicycle helmet law on head injury will probably be largest for adult cyclists, in adverse conditions, and in single bicycle accidents. Mandatory bicycle helmet legislation may prevent between 0.6 and 1.3 fatal injuries per year, between 15 and 31 serious injuries per year, and between 440 and 1000 head injuries among cyclists in Norway. It is not likely that a helmet wearing law (or increased voluntary helmet wearing) will lead to more risky cyclist behavior. A law may reduce cycling, but any effect on the amount of cycling is likely to be temporary. A helmet wearing law may be inconvenient for bicycle sharing schemes and e-scooter renting schemes.

## Background

In Norway, it is an objective to increase cycling, preferably without reducing road safety. Cyclists have a higher injury rate per kilometer than car drivers; thus, more cycling may increase the number of injuries. One measure that may counteract an increase in the number of injuries, is mandatory bicycle helmet legislation. However, there are many arguments against such legislation, e.g. that it makes cycling less attractive. This report focuses on the safety effects of cycle helmets and helmet wearing laws. The report discusses the arguments for and against helmet wearing laws and assesses their validity based on a review of research.

## Arguments for mandatory bicycle helmet legislation

The main argument for a bicycle helmet law is that cycle helmets reduce the risk of head injury. Based on Norwegian injury statistics, a bicycle helmet law may prevent 3-5 fatal injuries, 14-75 serious injuries, and 10-55 serious head injuries to cyclists per year.



## Arguments against mandatory bicycle helmet legislation

There are many arguments against mandatory bicycle helmet legislation, but not all of them are supported by empirical research.

The most relevant arguments against a helmet wearing law in Norway are:

- It can make the operation of bicycle sharing schemes and e-scooter renting schemes more difficult.
- There will be resistance to a law from lobbying organizations, cyclists or the public in general.

Some common arguments against a helmet wearing law that do *not* have empirical support are:

- There will be less cycling: Experience in other countries shows that the amount of cycling may be reduced initially, but this effect is usually small and does not last long.
- Helmet wearing leads to more risky behavior, increases the amount of neck injuries and leads to drivers being less considerate towards cyclists: Again, there is no consistent empirical support for these arguments.
- An information campaign can be as effective as a law but is less intrusive and will meet less resistance: It is correct that a campaign is less intrusive than a law and will probably be resisted to a lesser extent. However, it is doubtful that a campaign is as effective as a law.

## Recommendations

If mandatory bicycle helmet legislation is to be introduced in Norway, the following factors may make the law more effective (i.e. lead to a high helmet wearing rate), while at the same time reducing opposition to it:

- The law should apply to all cyclists (children, adolescents, adults)
- The law applies to all types of bicycles (e-bikes/pedelecs, rented bikes, etc.)
- The law applies to e-scooters
- Exceptions from the law can be made, e.g. in warm weather or when cycling uphill (such exceptions need not include e-bikes/pedelecs and e-scooters)
- The law applies even when cycling on sidewalks (which is permitted in Norway, provided cyclists respect pedestrians).