

**Department of Clinical Neuroscience**  
Division of Insurance Medicine**Road traffic injury and sickness absence**

Despite extensive measures in Sweden and other countries to reduce traffic accidents in general, a large number of traffic accidents still occur where drivers, passengers, cyclists and pedestrians are injured.

Knowledge is extremely limited when it comes to long-term consequences for the injured road users. One reason why this has not been investigated to any great extent is that information on this has often not been available, neither in Sweden nor in other countries. Of interest are, from different perspectives, for example the following questions: What proportion of the injured are on sick leave or receive disability pension? In which diagnoses? For a shorter period or for several years to come? How extensive are their future needs for healthcare and medication? How is this related to previous healthcare consumption, sick leave, etc.

Due to its significant economic impact, incapacity for work constitutes a large part of the disease burden in traffic accidents and is therefore a very important outcome variable for research on traffic injuries. As a supplement to social insurance, people injured in traffic accidents can receive financial compensation from insurance companies for a permanent medical injury. There is a lack of knowledge about the extent to which an assessed permanent medical injury correlates with long-term sick-leave or disability pension.

The purpose of our research is to gain knowledge about the future life situation of drivers, passengers, cyclists and pedestrians who are injured in traffic. This type of research provides valuable information to authorities and other actors so that preventive measures can be taken.

This is an interdisciplinary project that takes place in collaboration with researchers from Folksam Traffic Research

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**Project group**

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## Publications

1. Kjeldgård L, Stigson H, Klingegård M, Alexanderson K, Friberg E. Sickness absence and disability pension among injured working-aged pedestrians - A population-based Swedish register study. *BMC Public Health* 2021 Dec 14;21(1):2279.
2. Elrud R, Friberg E, Alexanderson K, Stigson H. Sickness absence and disability pension among injured car occupants, and associations with injury and car safety factors: A prospective cohort study. *Accid Anal Prev.* 2021;159:106262.
3. Kjeldgård L, Stigson H, Alexanderson K, Friberg E. Sequence analysis of sickness absence and disability pension in the year before and the three years following a bicycle crash; a nationwide longitudinal cohort study of 6353 injured individuals *BioMed Central Public Health* 2020;20(1):1710.
4. Ohlin M, Kjeldgård L, Elrud R, Stigson H, Alexanderson K, Friberg E. Duration of sickness absence following a bicycle crash, by injury type and injured body region; a nationwide register-based study. *Journal of Transport & Health.* 2018;9:275-81. [doi.org/10.1016/j.jth.2018.01.011](https://doi.org/10.1016/j.jth.2018.01.011).
5. Elrud R, Stigson H, Ohlin M, Alexanderson K, Kjeldgård L, Friberg E. Sickness absence among Passenger Car Occupants following a Crash. *International Research Council on Biomechanics of Injury (IRCOBI) Conference proceedings 2017.* <http://www.ircobi.org/wordpress/downloads/irc17/pdf-files/18.pdf>
6. Kjeldgård L, Ohlin M, Elrud R, Stigson H, Alexanderson K, Friberg F. Bicycle crashes and sickness absence - A population-based Swedish register study of all individuals of working ages. *BMC Public Health.* 2019;19:943. [doi.org/10.1186/s12889-019-7284-1](https://doi.org/10.1186/s12889-019-7284-1).
7. Elrud R, Friberg E, Alexanderson K, Stigson S. Sickness absence, disability pension and permanent medical impairment among 64 000 injured car occupants of working ages; a two-year prospective cohort study. *Accident Analysis & Prevention.* 2019; 127:35-41.

## PhD theses

Elrud R. Sickness absence, disability pension, and permanent medical impairment among car occupants injured in a crash. Stockholm: Karolinska Institutet; 2020

*Partly based on data from the project*

Ohlin M. How to Make Bicycling Safer - Identification and Prevention of Serious Injuries among Bicyclists. Institutionen för kost- och idrottsvetenskap. Göteborgs Universitet. Göteborg, 2019.

## Licentiate thesis

Kjeldgård L. Sickness absence and disability pension among individuals injured in a bicycle crash. Institutionen för klinisk neurovetenskap, Avdelningen för försäkringsmedicin. Karolinska Institutet. Stockholm; 2020.

**Abstracts (selection)**

1. Elrud R, Stigson H, Ohlin M, Alexanderson K, Kjeldgård L, Friberg E. Sickness absence among Passenger Car Occupants following a Crash. International Research Council on Biomechanics of Injury (IRCOBI) Conference, 13-15 September 2017. Antwerp, Belgium.
2. Kjeldgård L, Ohlin M, Elrud R, Stigson H, Alexanderson K, Friberg E. Bicycle crashes and sickness absence - A nationwide Swedish cross-sectional study. 10th European Public Health Conference, 1-4 November 2017. Stockholm, Sweden.
3. Elrud R, Friberg E, Alexanderson K, Stigson H. Disability pension and permanent medical impairment among injured car occupants of working ages. 11th European Public Health Conference. 28 November- 1 December 2018. Ljubljana, Slovenia.