

# The risk of traffic accident injury depends on sex and age

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Men are not always at a greater risk than women of injuring themselves on the road or in the street. Credit: Arkadiusz Sikorski

Young men are more likely to injure themselves on the road or crossing a street than women, but among the elderly females are more vulnerable. This is according to a study on injuries and citizen mobility undertaken by researchers from the Barcelona Public Health Agency.

The latest Daily Mobility Survey of Catalonia (EMQ 2006, Spain) has served as a reference for a team from the Barcelona Public Health Agency for comparing the risk of traffic accident injury between [men](#) and [women](#). The data gathers the times and modes of transport of around 100,000 people and, according to the researchers, the conclusions can be extrapolated to other similar regions.

The results of the study, published this month in the journal 'Accident, Analysis and Prevention', reveal that, contrary to the general belief, men are not always at a greater risk of injuring themselves on the road or on the street than women; it depends on the age group and mode of transport.

"Among the youngest pedestrians and drivers, men show a greater risk of mild and serious injury than women, although the differences are reversed as age increases, such that elderly females are more likely to injure themselves than males," Elena Santamariña, one of the authors, explained to SINC.

According to the researchers, the fact that the risk is greater in child pedestrians and young male drivers can be associated with their greater risk taking at the wheel and in the case of girls, when crossing the street, as well as the fact that they act recklessly more frequently, such as speeding and consuming psychoactive substances.

At the other age extreme, the likelihood of injury of older female pedestrians and adult and elderly female drivers is higher due to factors such as less driving experience, which reduces their ability to avoid collisions and their perception of risk walking along a street, as well as greater physical fragility in accidents.

## **Women on city streets and men on intercity roads**

"Moreover, women tend to drive more along city streets - generally for journeys associated with the family and home - where there is likely to be more congestion, increasing the probability of collision, although the accidents are less serious because the speed is lower," Santamariña added.

The researcher recognises that the majority of these factors are related with gender roles and the masculine and feminine stereotypes established in society, "but not because there is an innate biological difference between the two sexes".

For the same reason, risky behaviours and a more aggressive attitude at the wheel are associated more with men, who also drive more and for longer on intercity roads, for work reasons. This makes them more exposed to serious collisions because of the greater speed of these roads.

In fact, the study confirms that the risk of fatal injury or death is always greater in men than women. Furthermore, regardless of the mode of transport, the number of age groups in which men present a higher risk than women and the size of these differences increase with the seriousness of the accident.

"All these factors demonstrate that at the time of estimating the risk of injury from traffic in [men and women](#), rates specific to age must be calculated, according to the mode of transport and seriousness," emphasised Santamariña.

**More information:** Elena Santamariña-Rubio, Katherine Pérez, Marta Olabarria, Ana M. Novoa.. "Gender differences in road traffic injury rate using time travelled as a measure of exposure". *Accident Analysis and Prevention* 65: 1- 7, April 2014.

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