

For cyclist safety, routes through residential areas, fewer along arterial roads

December 11 2013

If more of the continuous cycle routes were to run through residential areas, this would reduce the risk of fatal accidents involving cyclists and cars. Most of the collisions between cyclists and motorised traffic in built-up areas happen at intersections with access roads. In towns where cyclists mostly ride through residential areas, the risk of serious or fatal collisions between cyclists and motorised traffic is smaller. Well designed intersections with main roads can also improve cyclist safety. This is revealed in the study 'A safer road environment for cyclists' by Paul Schepers, for which he will be awarded his PhD at TU Delft on 6 December.

Road safety a concern

Cyclist safety is a key aspect of [road safety](#) and a major concern as the number of cyclist fatalities (now one third of all [road traffic](#) fatalities) is falling at an ever decreasing rate and the number of cyclists seriously injured every year (now over half of all road traffic injuries) is actually rising. The PhD thesis focuses on the question of how a safer infrastructure could contribute to improving these trends.

Better designed crossroads

Besides more cycle routes through residential areas, Schepers also concluded that better designed crossroads would also help reduce the number of cyclist fatalities. Examples include intersections with one-way

cycle paths on a ramp situated 2 to 5 metres away from the crossing. This ramp would force approaching drivers to reduce speed. The distance between the cycle path and the junction area would allow the driver to first cross the cycle path and then drive on to the main road (or vice versa), which would improve both visibility and safety.

Serious injuries

To reduce the number of [cyclists](#) seriously injured in road traffic, particular effort should be made to prevent bicycle-only accidents. The infrastructure plays a part in approximately half of all bicycle-only accidents e.g. obstacles, slippery materials in the road surface, bumps and holes, curbs and verges. A more indirect factor is the visibility of obstacles and the route of a cycle path, which could be greatly improved by clearer markings and other means to enhance the contrast (e.g. between the cycle path and a post).

Provided by Delft University of Technology

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