

**Methods** A literature review in relation to roundabouts and cyclist safety leads to discovering the relevance of 'looked-but-failed-to-see' phenomenon. All crashes at roundabouts in Victoria (2004–2009) are analysed. Lane positioning of 130 commuter cyclists through roundabouts is observed and typical paths mapped.

**Results** Roundabout crashes involving cyclists are 81% entering-circulating. Cyclists observed: none enter centred in the lane and stay there. Predominant behaviours are: 62% 'straight-lining' from kerbside to near the island, then back to kerbside—allowing higher speeds; and 32% ride near the outer edge from entry to exit. Resultant conflict path map is more complex than that of cars (assumed to be the working assumption of drivers). Cyclists reduce their chances of being overlooked if they are located where drivers look for cars—in the middle of the lane. Roundabout bicycle lanes (although they may assist comfort) position cyclists away from where all drivers can be assumed to look, so probably reduce cyclist safety.

**Significance** A new design is proposed which cues cyclists to enter and ride through roundabouts the middle of lanes; warns drivers that cyclists will be there; and slows cars for safe cyclist merging. Aspects of this design have been implemented by several councils. Reduction of cyclist roundabout crashes means a reduction in all roundabout crashes.

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## HIGH RATE OF CRASHES AT ROUNDABOUTS INVOLVING CYCLISTS CAN BE REDUCED WITH CAREFUL ATTENTION TO CONFLICT PATHS

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**Background** Victoria has a high rate of cyclist involvement in crashes at roundabouts (whole state, 24%; inner suburban, 49%.

**Aims** Why are cyclists involved in so many roundabout crashes? What can be done to improve cyclist safety?