

**HELMET USE IN BIXI CYCLISTS IN TORONTO, CANADA:
AN OBSERVATIONAL STUDY**

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Background In May 2011, the BIXI bikesharing programme was launched in the downtown core of the City of Toronto, Canada, providing public access to bicycle rentals for short-commutes within the city.

Objective To investigate the use of helmets for cyclists choosing to use BIXI bikes in comparison to personal bike riders in the City of Toronto.

Methods A prospective cohort study design was used to compare the prevalence of helmet use for male and female cyclists on personal bikes in comparison to those on BIXI bikes during the weekday morning and evening commutes over the summer, 2011.

Results Of the 6732 sample size, 306 cyclists on BIXI bikes and 6426 personal bike riders were observed. Overall, 50.3% of cyclists wore helmets. The proportion of BIXI bike riders using helmets was significantly lower than the proportion of helmet users on personal bikes (20.9% vs 51.7%, respectively, $p < 0.0001$).

Significance/Contribution to the Field Although the BIXI bike programme has provided an alternate means for Torontonians to use a bicycle, cyclists using BIXI bikes are much less likely to wear a helmet. Since the prevalence of helmet use in cyclists in general is already low, helmet use should be especially promoted in BIXI bike riders in order to promote a safe and healthy environment for cyclists.