

The effectiveness of antilock brake systems on motorcycles in reducing real-life crashes and injuries.

ABSTRACT

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This study set out to evaluate the effectiveness of antilock brake system (ABS) technology on motorcycles in reducing real-life injury crashes and to mitigate injury severity. The study comprised an analysis of in-depth fatal crash data in Sweden during 2005-2008 to investigate the potential of ABS as well an estimate of the effectiveness of ABS in crash reduction in Sweden between 2003 and 2008 using induced exposure methods.

Findings show that head-on collisions were the least ABS-affected crash types and collisions at intersections the most influenced. Induced exposure analysis showed that the overall effectiveness of ABS was 38 percent on all crashes with injuries and 48 percent on all severe and fatal crashes, with a minimum effectiveness of 11 and 17 percent, respectively.

The study recommends the fitment of ABS on all new motorcycles as soon as possible and that customers only purchase motorcycles with ABS.