



# Students<sup>for</sup> Cellphone-Free Driving

## Alberta Driver's Fact Sheet

### The problem:

- In Alberta, motor vehicle collisions are a leading cause of unintentional death and injury<sup>1</sup>
- Every week, 9 people die and nearly 500 are injured in motor vehicle collisions in Alberta<sup>2</sup>
- Driver distraction, including the use of cellphones and other electronic devices, is responsible for up to 80% of these collisions<sup>3</sup>
- Albertans are the worst offenders in Canada. At any given time, 1 in 10 Alberta drivers are using their cellphones while driving compared to the national average of 1 in 20<sup>4</sup>

### If you **drive while talking** on your cellphone:

- You are four to six times more likely to be involved in a collision<sup>5</sup>
- Your reaction time is slowed by 18%<sup>5</sup>
- You double your risk of having a rear-end collision<sup>5</sup>
- You increase your risk of running red lights<sup>6</sup>
- You may be more impaired (i.e. more accidents and less responsive driving behavior) than a legally intoxicated driver<sup>7</sup>

### Having a cellphone conversation is **more** distracting than talking to a passenger:

- When compared with no distractions, cellphone use negatively impacts lane keeping, increases following distance and impairs navigation; on the other hand, passenger conversation has little effect on all three measures<sup>10</sup>
- During passenger conversations, the production of speech by the driver and the complexity of speech used by both the driver and the passenger drop in response to an increase in the demand of traffic<sup>10</sup>
- The topic of passenger conversations often include the traffic, as passengers help the driver navigate and warn the driver of hazards<sup>10</sup>



## Hands-free devices are not safer:

- You are still four times more likely to be involved in a collision while talking on a hands-free device<sup>8</sup>
- Your visual field attention is reduced<sup>9</sup>
- It is the conversation, and not the electronic device itself, that is the distraction

## If you drive while reading or writing text messages:

- Your reaction time is slowed by 35%<sup>11</sup>
- Your ability to maintain lateral vehicle control is decreased and you are at greater risk of drifting into another lane<sup>11</sup>
- You may be at a greater collision risk than if you are driving at the legal alcohol limit or under the influence of marijuana<sup>11</sup>

## References:

<sup>1</sup>Injuries in Alberta. Alberta Centre for Injury Control & Research. Injuries in Alberta, 2008. <http://www.acicr.ualberta.ca/>. Accessed July 16, 2009.

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<sup>2</sup>Office of Traffic Safety. Alberta Traffic Collision Facts 2007. Alberta Transportation, 2008. <http://www.transportation.alberta.ca/Content/docType47/Production/Facts2007.pdf>. Accessed July 16, 2009.

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<sup>3</sup>National Highway Traffic Safety Administration (NHTSA). Breakthrough Research on Real-World Driver Behavior Released. NHTSA, U.S. Department of Transportation, 2006. [www.nhtsa.dot.gov/people/injury/research/wireless/index.html](http://www.nhtsa.dot.gov/people/injury/research/wireless/index.html). Accessed July 16, 2009.

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<sup>4</sup>Road Safety and Motor Vehicle Regulation Directorate. Observational Survey of Cell Phone use by Drivers of Light Duty Vehicles 2006 – 2007. Transport Canada, 2008. <http://www.tc.gc.ca/roadsafety/tp/tp2436/rs200802/menu.htm>. Accessed July 16, 2009.

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<sup>5</sup>Strayer et al. Profiles in driver distraction: Effects of cell phone conversations on younger and older drivers. Human Factors 2004; 46(4): 640-9.

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<sup>6</sup>Strayer et al, Johnston W.A. Driven to distraction: Dual-task studies of simulated driving and conversing on a cellular telephone. Psychological Science 2001; 12(6): 462-6.

LINK<<http://www.hss.caltech.edu/courses/2004-05/winter/psy20/StrayerJohnston.pdf>>

<sup>7</sup>Strayer et al. Fatal distraction? A comparison of the cell-phone driver and the drunk driver. Proceedings of the Second International Driving Symposium on Human Factors in Driver Assessment, Training and Vehicle Design. 2003: 25-30.

LINK<<http://www.psych.utah.edu/AppliedCognitionLab/DrivingAssessment2003.pdf>>

<sup>8</sup>Redelmeier, D.A. and R.J. Tibshirani. Association between cellular-telephone calls and motor vehicle collisions. New England Journal of Medicine 1997; 336(3): 453-8.

LINK<<http://content.nejm.org/cgi/reprint/336/7/453.pdf>>

<sup>9</sup>Barkana et al. Visual field attention is reduced by concomitant hands-free conversation on a cellular telephone. American Journal of Ophthalmology 2004; 138(3): 347-53.

LINK<<http://abstracts.iovs.org/cgi/content/abstract/45/5/5468>>

<sup>10</sup>Drews et al. Passenger and cell phone conversations in simulated driving. Journal of Experimental Psychology: Applied 2008; 14(2): 392-400.

LINK<<http://www.apa.org/journals/releases/xap144-drews.pdf>>

<sup>11</sup>Reed, N., & R. Robbins. The effect of text messaging on driver behavior: a simulator study. Transport Research Laboratory, © 2008.

LINK<<http://www.racfoundation.org/files/textingwhiledrivingreport.pdf>>

