



Fact Sheet – Safety of Driving Post Call

**On Call Service = Sleep Deprivation**

- **In-house Call: One in every four shifts, 7 call shifts in a 28 day block.**  
In a 2004 study through the Canadian Medical Association Journal, residents were reported to work shifts that averaged 25.5 hours, keeping only an average of 1.9 hours of sleep and answering an average of 41 calls during that time.

**On call Service = Increased Risk of Motor Vehicle Collisions**

- Resident physicians are **more likely to be involved in a Motor Vehicle Collision (MVC)** when driving post call<sup>1</sup>.

	Resident Physician on call	Staff Physician not on call
Fell asleep while driving	23%	8%
Fell asleep behind the wheel	49%	13%
Traffic violations	25	15
Motor vehicle collisions	20	11

- Residents Physicians are **more likely to get into a near MVC (N-MVC) due to falling asleep** at the wheel during their residency, as compared to before residency (60.3% v. 25.7%)<sup>2</sup>.
- Poor quality sleep leads to decreased alertness and impaired performance comparable to deficits observed in subjects with a **blood alcohol concentration of roughly %0.10**<sup>3</sup>.
- For every extended work shift scheduled in a month **the risk of a MVC is increased by 9.1%**<sup>4</sup>.

<sup>1</sup> Marcus CL, Loughlin GM: Effect of sleep deprivation on driving safety in housestaff. Sleep 1996, Dec 19(10): 763-6.

<sup>2</sup> Kowalenko T, Haas-Kowalenko J, Rabinovich A, Grzybowski M: Emergency Medicine Residency Related MVCs-Is Sleep Deprivation a Risk Factor. Academic Emergency Medicine, Volume 7(5) 451.

<sup>3</sup> Dawson D, Reid K: Fatigue, Alcohol and Performance Impairment. Nature 1997, Volume 288.

<sup>4</sup> Barger LK, et. al.: extended Work Shifts and the Risk of Motor Vehicle Crashes among Interns. NEJM 2005, Jan 13 Volume 352 (2).