

- When you are driving, it is important to constantly watch out for the signs of sleepiness outlined in the table above. If you become sleepy behind the wheel, get off at the nearest rest area. Taking a brief nap (~15 minutes) and/or having 1-2 cups of coffee (~100-200 mg of caffeine) can help to reduce sleepiness in the short-term. They are most effective if taken together, but the benefits will last for only a few hours at most.
- In short, there is no substitute for obtaining adequate sleep before getting behind the wheel of an automobile.

Reference:

1. Ontario Ministry of Transportation. Ontario Road Safety Annual Report 2001.

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## **DROWSY DRIVING**



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## How common is drowsy driving?

Drowsiness is second only to alcohol as the leading cause of motor vehicle accidents. More than 50% of people report that they have driven drowsy in the past year, and nearly 25% report actually falling asleep behind the wheel. Government estimates indicate that sleepiness contributes to just over 1% of road fatalities, but this figure is likely an underestimate because:

- 1) police officers are often not trained to recognize the signs of a drowsy driving crash;
- 2) sleepiness is often not "counted" as a potential cause of an accident;
- 3) there is no "breath test" or "blood test" of sleepiness as there is with alcohol intoxication.

In fact, some research has estimated that sleepiness plays a major role in as many as 25% of accidents on the highway each year. Drowsy driving crashes are more likely to occur at night or in the mid-afternoon (times of greater sleepiness), to occur on roads with higher speeds, to involve a single vehicle running off the road, and to result in serious injuries. The driver is often alone and makes no effort to brake or to take other evasive action.

## How dangerous is it to drive while drowsy?

Laboratory research suggests that driving while sleepy can be as dangerous as driving while drunk. One study of healthy young adults found that performance on a driving simulator after 18 hours of being awake was equally impaired as a blood alcohol concentration (BAC) of 50 mg%, or slightly less than the legal limit. After being *awake all night*, driving performance was as bad as a BAC of 80 mg%, which is the "legal limit" in all Canadian provinces and territories. Other research has found that reaction time, one of the skills critical to driving, is more impaired in patients with untreated sleep apnea than healthy individuals who are legally intoxicated.

## Who is at risk for drowsy driving crashes?

No driver is exempt from the risk of a drowsiness-induced car crash, however there are certain factors

known to increase the probability of such an accident. These include:

- Being chronically sleepy. Failure to get enough sleep on a regular basis to feel refreshed during the day is perhaps the greatest risk factor for having a drowsy driving crash.
- Being a young and male driver. The group at greatest risk for drowsy driving crashes is between 20-25 years of age.
- Doing a lot of highway driving. This is likely one of the main reasons why commercial truck drivers are more likely to have sleepy driving accidents than other drivers.
- Having a job that involves rotating shifts. Shift workers are likely at greater risk because they have high rates of daytime sleepiness.
- Having an undiagnosed or untreated sleep disorder, such as insomnia, sleep apnea, and narcolepsy.
- Drinking even small amounts of alcohol when already tired or taking drugs that create sleepiness will significantly increase the chance of having a drowsy driving crash.

## What are the signs that you are too drowsy to drive?

Sleepiness is the body's way of telling you that you are in need of sleep, much the same way that hunger signals your need for food. In healthy individuals, sleepiness can be the result of: 1) obtaining inadequate or poor quality sleep; 2) sleeping when the body wants to be awake (e.g., night shift workers); and 3) time of day: people are likely to feel sleepy in the mid-afternoon and again in the early morning hours (i.e., 1:00 - 5:00 am) regardless of the quantity and quality of previous sleep. Substances such as prescription medications, over-the-counter herbal remedies, and alcohol can cause sleepiness. Sleepiness is also a major symptom of a number of sleep disorders, including sleep apnea and narcolepsy.

If you experience the following sleepy behaviours behind the wheel, or if you notice the following

characteristics while driving, you should stop and rest:

Sleepy feelings and behaviours	Sleepy driving behaviours
tiredness and/or irritability	"zoning out" while driving (e.g., missing exits)
head nodding	Drifting out of your lane
eyelids drooping or feeling heavy	Difficulty maintaining a constant speed
eye rubbing	
yawning	
lapses in attention or memory	

## What should I do if I feel sleepy behind the wheel?

Research has shown that strategies reported by many drivers, including things such as turning up the radio, rolling down the window or turning on the air conditioning for cold air, engaging in brief exercise, and singing, are not helpful for reducing the risk of having an accident. There are preventive steps that you can take before getting behind the wheel.

- When preparing to leave on a long-distance trip, be sure to get adequate sleep (minimum of 8 hours) the night before so that you are well rested for the drive. Plan to drive at a time when your body feels more alert, like in the morning, and take frequent breaks. Always have an alert companion with you to share the driving duties.
- If you think you may have a sleep disorder, consult your doctor. Treatment of sleep disorders can improve daytime sleepiness and irritability. Research also suggests that effective treatment of sleep disorders reduces the risk of drowsy driving crashes.