

Impacts and Risk Groups

How does fatigue impact a driver?

On an individual basis, fatigue contributes to the following:

- **Decreased awareness of the driving environment** - Drivers need to continuously take in and process driving environment information “bytes”. Mental fatigue dulls a driver’s senses, and slows their ability to absorb critical driving information; their picture of the driving environment is incomplete. 
- **Decreased ability to identify key information** - The driving environment exposes every driver to an overwhelming volume of information. Drivers have to distinguish which pieces of information are important to their driving decisions. Mental fatigue reduces a driver’s ability to select which information requires their attention and response.
- **Diminished judgment** - Drivers need to process critical driving information and decide what actions to take to address a condition or hazard. Mental fatigue reduces a driver’s ability to make the right call. 
- **Increased tendency to take risks**
- **Impaired ability to respond to stimuli** - Mental and physical fatigue results in slower reaction times. That fraction of a second can be the difference between a near miss and a costly crash. In severe cases, fatigued drivers completely fail to respond to a stimulus – didn’t see it, didn’t hear it - and therefore make no reaction to avoid the hazard. 
- **Reduced problem solving abilities and manual dexterity**
- **Reduced ability to judge distance, speed, and time.**

- **Forgetting or ignoring normal checks or procedures.** - Mentally fatigued drivers demonstrate an inaccurate recall of operational events.
- **Loss of self-awareness.** - Mental fatigue reduces a driver’s ability to correctly detect and judge their own level of fatigue.

Who’s At Risk?

All drivers are at risk. Our busy lives are full of competing demands that reduce our resolve to get the rest we require. Six out of 10 Canadians get about one hour less sleep than the six to eight hours experts say most adults need in order to waken feeling refreshed and to perform optimally through the day. Nearly 58 per cent of Canadians surveyed said they often feel tired (CBC News, Leger Marketing). 

However, research has identified populations of drivers that are at greater risk for involvement in crashes due to driving while fatigued (TIRF, 2009):

- **Night or rotating shift workers** are more likely to get insufficient sleep, and more likely to get poor quality sleep;
- **Commercial vehicle operators** often drive for long periods of time, causing them to experience both fatigue and drowsiness;
- **Drivers taking medications** with side effects known to enhance fatigue or drowsiness;
- **Young males** are more likely to drive late at night and be sleep deprived;
- **People with sleep disorders** are more likely to suffer from acute and/or chronic sleep deprivation; and
- **Drivers under the influence of alcohol** which has a sedating effect, and when combined with mental or physical fatigue, can increase performance deficits.