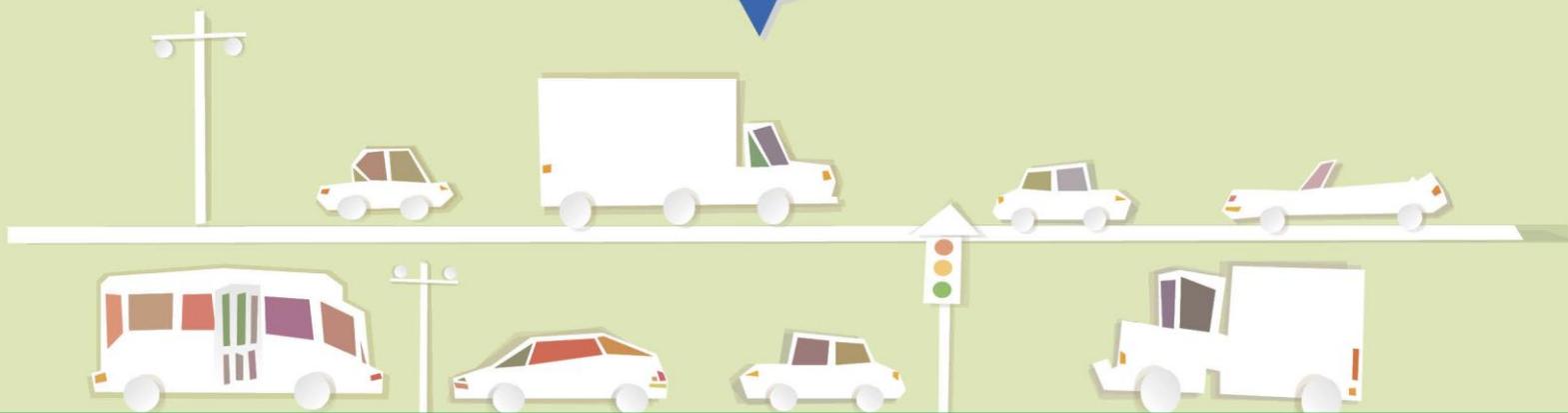


# THEMATIC FILE ROAD SAFETY 8

## FATIGUE AND SLEEPINESS BEHIND THE WHEEL



## Thematic File Road Safety 8 – Fatigue and sleepiness behind the wheel (Summary)

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Thematic File Road Safety 8 –Sleepiness (2016)

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Fatigue and sleepiness behind the wheel are a major problem within traffic safety. In the remainder of this document, we'll use the term "fatigue" for these two closely related phenomena.

Tiredness is a state of impaired alertness resulting in reduced capacity and motivation to act. Fatigue has a physical and a mental / psychological aspect. There are five general causes of fatigue: the time spent on a task or job; sleep deprivation; biorhythm; monotony of the task; and individual characteristics (including medical condition and use of alcohol, drugs and medicines).

Fatigue behind the wheel leads to a number of negative effects on traffic behavior, including a slower reaction time, decreased alertness, decreased levels of information processing and worse steering.

Individual characteristics such as age, medical condition, use of alcohol, medicines or drugs, affect how susceptible people are to fatigue and how well they can cope with fatigue. Older people (70+) and people with poor physical condition are more fatigued. Teens often need extra sleep while they actually sleep very little, and this makes teenagers again more susceptible to the effects of fatigue because of alcohol, drugs or sleeping poorly. Insomnia is a common sleep disorder that leads to fatigue during the daytime. Sleep apnea is also common and is not recognized by many people.

It is difficult to gauge precisely which percentage of drivers drives while drowsy or tired, but a recent study by the Belgian Road Safety Institute indicates that in Belgium about 4.8% of motorists are drowsy or tired behind the wheel. Young drivers, drivers who drive at night, drivers who have been drinking alcohol or drivers making long journeys are most susceptible to fatigue. Other studies of the Belgian Road Safety Institute reveal that 58% of drivers admit having driven at least once while they were sleepy in the last year.

Determining the share of fatigue as (co-)cause of road accidents is not easy. Scientific estimates based on in-depth research of road accidents indicate that about 10 to 15% of road accidents are related to fatigue. A White Paper published in 2013 about drowsiness in traffic, written by European Sleep and fatigue experts, estimates that drowsiness plays a role in about 20% to 25% of road accidents in Europe.

Measures against fatigue in traffic can focus on drivers, enterprises, roads or vehicles. Drivers can be made aware about the dangers of tired driving and the best counteractions through campaigns. Transportation enterprises can implement a policy to combat fatigue. The roads can be equipped with markers which provide audio-tactile feedback when they are being driven on, and can also be equipped with shoulder safeguards or obstacle-free zones to reduce the effects of accidents linked to fatigue. Alongside motorways safe resting places can be installed so that drivers have the opportunity to stop in time and to rest (safely). Finally, fatigue can be further controlled by an improvement in the driving and resting time legislation and specific warning systems and fatigue detection systems in vehicles.

Research by the Belgian Road Safety Institute reveals that the Belgian motorists usually use inappropriate methods to combat fatigue, such as opening the window and turning the radio up.



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