



# Managing driver sleepiness

## UNDERSTANDING THE RISKS

Sleepiness contributes to approximately 1 in 5 fatal and serious road accidents. When we are feeling sleepy, for example after a night shift, driving is one of the most dangerous things we can do. Sleepiness reduces alertness, slows reaction times, and increases the likelihood of being involved in an accident. Sleep-related vehicle accidents (SRVAs) are more likely to result in serious injury, because they tend to occur at high speed, and there is limited braking or avoidance action.

**When?** SRVAs typically occur when our alertness is at its lowest (between approximately 0200hr-0600hr). Research has shown that we are 50 times more likely to fall asleep at the wheel at 0200hr than at 1000hr.

Drivers are also at increased risk following inadequate sleep, or working long hours. With less than 5 hours of sleep, we are 3 times more likely to be involved in a SRVA. After being at work for 11 hours, the risk doubles.

**Where?** Most likely on long, straight stretches of road, such as highways, which require minimum driver input, and where high-speed driving is permitted.

**Who?** SRVAs typically involve those who work long hours, or are driving at times of the day when alertness is low, in particular truck drivers, high mileage drivers, young drivers and shift-workers. Other personal risk factors include suffering from sleep apnea, insomnia, and the use of some over-the-counter medications. Please contact your doctor if you are concerned that any of these factors may impact your ability to drive safely.

## WHAT CAN I DO?

**Plan:** First, make sure you have had sufficient sleep before driving - most of us need 7 to 9 hours of sleep every day. If you are sleepy, do not drive until you have had some sleep, or take another form of transport. Make a mental plan for your journey, with planned breaks at least every 2 hours.

**Assess:** Be aware of the early warning signs of driver sleepiness: e.g., repeated yawning, changing position frequently, and frequent eye blinks. Do not wait until you are having difficulty keeping your eyes open or your head is nodding, or if you can't remember a portion of your journey, as these are signs that you are already very fatigued, or are experiencing brief periods of sleep (microsleeps), and are not safe to drive.

**Break:** Do not be tempted to keep driving to reach your destination: take breaks as planned, and take additional breaks if needed. Opening the window or turning up the music are not effective ways to keep alert. As soon as you start to show signs of sleepiness, such as yawning, pull over and take a break.

Park somewhere safe, drink 1-2 cups of coffee, lock the doors, set an alarm for 20 minutes and take a nap. On waking, walk around outside for 10 minutes to wake up properly before setting off again. For the next hour or two, you should benefit from the alerting effects of both the caffeine and the nap.

# Managing driver sleepiness



## WHAT CAN THE COMPANY DO?

### Reduce the amount of driving

- Consider company driving in the Company Fatigue Management Plan
- Introduce work from home policies for office workers, and encourage car sharing for example by assuring a parking space to those who share cars
- Provide alternative modes of transport, for example a company mini-bus, taxi vouchers
- Try to limit professional drivers' hours. Local working time rules vary, but within the EU, drivers cannot drive for longer than a total of 9h between rest breaks of a minimum 11h. Due to elevated sleepiness levels, it is recommended that this maximum be reduced at night, especially between 0200hr-0600hr. Where workload is elevated (for example due to winter driving, or difficult roads), total driving hours should also be reduced. There is limited scientific evidence supporting maximum driving hour rules, so collecting fatigue-related data, and managing risks as they are identified, is recommended.

### Manage the risk of driver sleepiness

- Introduce a policy to limit continuous driving to a maximum of 2 hours before a break must be taken
- Implement processes for planning and undertaking road transport journeys with the goal of arriving safely, particularly taking into account driving at high-risk times (e.g., 0200hr-0600hr)
- Adjust working hours to limit the number of people driving to/from work when sleepy, for example after work hours which result in their being awake for more than 16h
- Consider the inclusion of fatigue-specific medical checks on an annual basis, for example using the Epworth sleepiness scale, or STOP-BANG
- In order to learn from any previous incidents, ensure there is an effective process for investigating the potential role of sleepiness in road accidents

### Enable workers to manage the risk of driving when sleepy

- Create a culture where it is acceptable to report sleepiness and support workers to manage sleepiness
- Educate workers on the importance of sleep and the risks of driving when sleepy
- Provide facilities to enable workers to obtain adequate sleep before driving, for example napping rooms, company accommodation, or hotels
- Provide a napping policy, describing when and how to nap to manage driver sleepiness – for example as described above

---

## Key references

- Phillips RO, Sagberg F. "Managing driver fatigue in occupational settings", in *Sleepiness, crashes and the effectiveness of countermeasures*, Anund A, Kecklund G, and Akerstedt T, eds. Linköping: Swedish National Road and Transport Research Institute, 2011. p34-42.
- Guppy JA and Guppy A. "Truck driver fatigue risk assessment and management: a multinational survey". *Ergonomics* 46 (8). 2003. p763-779.