

Survey of truck drivers finds many suffer from sleep-related breathing disorders

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A survey of 905 Italian truck drivers has shown that approximately half

suffer from at least one sleep-related breathing problem that potentially can cause drivers to fall asleep at the wheel.

In a presentation at the European Respiratory Society International Congress today, Mr Luca Roberti, President of Apnoici Italiani (the Italian Sleep Apnoea Patient Association), called for it to be made compulsory for European haulage companies to test drivers for sleep-related breathing problems.

"Considering that drivers are in charge of transport vehicles weighing several tons, companies have a great moral and civic responsibility to ensure their employees are safe to drive and are not at risk of suddenly falling asleep at the wheel. This would also be in line with European Union legislation that regulates the renewal of drivers' licences for people suffering from [obstructive sleep apnoea](#)," he said.

Obstructive sleep apnoea (OSA) is a common condition where the walls of the throat relax and narrow during sleep, interrupting normal breathing. This can cause snoring, disrupt sleep and affect people's quality of life, making them feel tired and sleepy during the day. Research has shown that someone who is deprived of sleep due to OSA may be up to 12 times more likely to be involved in a driving accident. As a result, the European Union Directive 2014/85/EU, created to limit accidents arising from OSA, requires drivers with moderate or severe OSA to seek [medical advice](#) before their licences can be issued or renewed; drivers may be advised not to drive until confirmation of a diagnosis and steps are taken to control the condition. One of the main risk factors for OSA is being overweight.

Mr Roberti and colleagues conducted their study in 2018 after being asked by an Italian truck driver cooperative, Federtrasporti, to carry out a health survey of truck drivers. On 44 days between March and December, volunteer expert patients, doctors and nurses questioned

drivers at truck dealerships, 50 companies that were part of Federtrasporti, at driver training days and at a truck driver show.

They measured height, weight and waist circumference, took details of medical conditions, such as diabetes, and of lifestyle factors, such as whether the drivers smoked or took drugs. They asked about their length of time as a haulier, distances covered, whether they drove national or international routes, and the types of goods they transported. Their questions about sleep included:

- do you sometimes stop breathing and have sleep apnoea at night?
- do you snore?
- do you wake up needing to urinate urgently?
- are you dissatisfied with how you have slept?
- do you frequently feel the desire or need to sleep during the day (except after lunch)?
- do you take drugs for [high blood pressure](#)?

Of the 905 drivers interviewed, 887 were men and 17 women; ages ranged from 19 to 78 years with an average age of 46 years. The researchers found that 77% were overweight or obese, with a body mass index of 25 kg/m² or more (23% had a BMI of less than 25, 43% had a BMI of 25-30, 23% had a BMI of 30-35, 9% had a BMI of 35-40 and 2% had a BMI of over 40).

Nearly 10% of drivers (90 drivers) said their partners noticed that they sometimes stopped breathing when they were sleeping; 55% were habitual snorers (508 drivers); 43% answered 'yes' to at least two of the sleep questions and so were at risk of OSA (387 drivers); 17% had high blood pressure; and 6% had diabetes. Of the 508 habitual snorers, the researchers found that 15% (78 drivers) also suffered from OSA, which suggests that the proportion of drivers with OSA in the whole group may be higher than the 10% who knew they suffered from it. In addition,

35% of the habitual snorers said they were not satisfied with how they slept and 21% complained of sleepiness during the day.

Although there was no link between increasing age and OSA, the researchers did find that the number of people who snored increased with age: 43% in those younger than 35 years, 53% in those aged between 35-49 years, and 64% in those over the age of 50.

Mr Roberti said: "This observational study has underlined the high prevalence of obstructive sleep apnoea among truck drivers, which is greater than the prevalence in the general population. This is due to a lifestyle that forces the drivers to sit for several hours a day, with little physical activity and a [poor diet](#), leading to a greater risk of excessive daytime sleepiness and of dozing off unexpectedly while driving."

The prevalence of OSA in the general population is estimated to range between 6-17%, with certain groups having a higher risk, such as the overweight, the elderly and some ethnic minorities.

"Haulage companies should make it compulsory for their drivers to have examinations to diagnose any sleep-related breathing problems, and both they and their drivers should give careful consideration to drivers' diets," concluded Mr Roberti.

The researchers have extended their study to investigate respiratory flow, levels of oxygen in the blood while asleep, snoring and position during sleep in 5% of the 905 drivers. They are attaching devices to the drivers to measure these factors and the results will be used to verify the accuracy of the findings they obtained from the questionnaire.

Professor Anita Simonds is a Consultant in Respiratory and Sleep Medicine at Royal Brompton and Harefield NHS Foundation Trust, UK, and Vice President of the European Respiratory Society, and was not

involved in the research. She said: "This study provides interesting data about sleep-disordered breathing among truck [drivers](#), and suggests that, as a group, they may have a higher prevalence of obstructive sleep apnoea than the general population. However, we can treat and improve OSA; measures such as stopping smoking, losing weight and being more physically active can help to improve the condition, which may help to reduce the risk of traffic accidents due to driver sleepiness.

"For more serious cases of OSA, effective treatments like continuous positive airway pressure can be provided. This helps people with OSA to breathe more easily in the night, which can improve patient quality of life and would also contribute to reducing driver sleepiness."

More information: Abstract no: PA2000, "Obstructive sleep apnoea screening the truck driver population", by Luca Roberti et al; "Current perspectives in sleep-disordered breathing" poster discussion session, 8.30-10.30 hrs CEST, Monday 30 September, room 6D.

Chamara V. Senaratna et al. Prevalence of obstructive sleep apnea in the general population: A systematic review, *Sleep Medicine Reviews* (2016). [DOI: 10.1016/j.smrv.2016.07.002](https://doi.org/10.1016/j.smrv.2016.07.002)

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