

# Sleep deprivation can cause drivers to doze when they believe they are awake

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Many people admit to have driven while drowsy, but most do not realize how dangerous it can be.

After the driver of a tractor-trailer apparently failed to react appropriately to slowed traffic on the New Jersey Turnpike and slammed into a limousine van early on the morning of June 7, killing one passenger and injuring four others, including comedian and actor Tracy

Morgan, it was learned that the driver had gone without sleep for more than 24 hours.

Driver fatigue has long been a concern in New Jersey, which became the first state to prohibit drowsy driving in 2003 with the passage of "Maggie's Law." The law defines a motorist without [sleep](#) for more than 24 consecutive hours as a reckless driver who could face vehicular homicide charges, up to 10 years in prison and a \$100,000 fine.

The law recognizes that sleepy drivers demonstrate impaired judgment, slower reaction time, impaired coordination and increased aggressiveness.

Kevin Roper, the driver of the tractor-trailer, has been charged with vehicular homicide and four counts of assault by auto.

Drowsy drivers number in the millions. In a 2011 National Sleep Foundation poll, 60 percent of adults said they had driven at least once while drowsy, and 37 percent admitted to have fallen asleep at the wheel in the previous year. AAA reports that one in six fatal traffic accidents results from [drowsy driving](#).

"When you are sleep-deprived for more than 24 hours, you need stronger sensory stimulation to maintain alertness," explains Xue Ming, a sleep medicine doctor at Rutgers New Jersey Medical School in Newark.

"Sensory input such as light, noise and touch keeps people alert, but when there's little stimulation, the brain will drift into a full sleep state or a micro sleep, which can last from a fraction of a second up to 30 seconds. In this state, the person feels like he is awake – he might even still have his eyes open – but he is actually asleep."

Drivers are most vulnerable to drowsiness from 2 a.m. to 4 a.m. and 1 p.m. to 3 p.m., when their circadian rhythm – which regulates periods of

sleepiness and wakefulness – dips. The circadian rhythm also prompts people to feel drowsy in diminishing daylight. "If a person had a big meal at lunch or did not sleep well the night before, this decline is more prominent," says Ming, who stresses that shift workers are particularly vulnerable when they leave work in the early morning hours.

Ming suggests a few tips to help enhance driving alertness for limited periods: a 20-minute nap, two cups of coffee or similar caffeinated beverage, brightening the dashboard or purchasing a visor light box that simulates morning light for the passenger side, since light boosts alertness.

"But, if you are feeling really tired," Ming says, "the best thing to do is park your car and call a cab."

Though we need seven to nine hours of uninterrupted sleep to feel fully alert, most Americans get six or fewer, Ming says. In fact, about 70 million Americans suffer from a chronic sleep disorder. The Centers for Disease Control and Prevention estimate that 8.6 million Americans take prescription sleeping pills, which might affect alertness and coordination.

"Sleep driving" grabbed headlines previously when Patrick Kennedy and Kerry Kennedy reportedly had Ambien in their systems in separate crashes in 2006 and 2012.

"It's difficult to tell how a sleeping pill will affect an individual and how they drive the next day," says Beatrix Roemheld-Hamm, associate professor, Department of Family Medicine and Community Health at Rutgers Robert Wood Johnson Medical School in New Brunswick. "For example, women typically are smaller than men, so the drug might affect them differently." She notes that the FDA has warned people taking the longer-acting Ambien CR not to drive at all the following day.

Provided by Rutgers University

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