Facts

Sleepiness and driving is a dangerous combination. Most people are aware of the dangers of drinking and driving but don't realize that drowsy driving can be just as fatal. Like alcohol, sleepiness slows reaction time, decreases awareness, impairs judgment and increases your risk of crashing.

It's nearly impossible to determine with certainty the cause of a fatal crash where drowsy driving is suspected. However, there are a number of clues at a crash scene that tell investigators that the person fell asleep at the wheel. For example, drowsy driving accidents usually involve only one vehicle where the driver is alone and the injuries tend to be serious or fatal. Also, skid marks or evidence of other evasive maneuvers are usually absent from the drowsy driving crash scene.

Unlike alcohol-related crashes, no blood, breath, or other objective test for sleepiness behind the wheel currently exists that investigators could give to a driver at the scene of a crash. This makes police training in identifying drowsiness as a crash factor very difficult.

Definitions of drowsy driving or driver fatigue rely on how the concept of "fatigue" is defined. Fatigue is a general term commonly used to describe the experience of being "sleepy," "tired," "drowsy," or "exhausted." While all of these terms have different meanings in research and clinical settings, they tend to be used interchangeably in the traffic safety and transportation fields.

There are many underlying causes of sleepiness, fatigue and drowsy driving. Including sleep loss from restriction or too little sleep, interruption or fragmented sleep; chronic sleep debt; circadian factors associated with driving patterns or work schedules; undiagnosed or untreated sleep disorders; time spent on a task; the use of sedating medications; and the consumption of alcohol when already tired. These factors have cumulative effects and a combination of any of these can greatly increase one's risk for a fatigue-related crash.

Sleepiness or Fatigue Causes the Following:

- Impaired reaction time, judgment and vision
- Problems with information processing and short-term memory
- Decreased performance, vigilance and motivation
- Increased moodiness and aggressive behaviors

In addition to the dangers of driving under the influence of fatigue, several states are considering legislation that would allow police to charge drowsy drivers with criminal negligence if they injure or kill someone while driving if they have not had adequate sleep

Who's at Risk?

In general, since all humans require sleep on a daily basis, any driver can succumb to fatigue or be at higher risk for experiencing a decrease of alertness or microsleep when they have not obtained adequate sleep (both in quality and quantity).

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The risk of having a crash due to drowsy driving is not uniformly distributed across the population. This is due to two factors. First, crashes tend to occur at times in keeping with one's circadian rhythms when sleepiness is most pronounced, for example, during the night and in the mid-afternoon. Thus individuals who drive at night are much more likely to have fall-asleep crashes. Second, people who are excessively sleepy either because of lifestyle factors or because of an untreated sleep disorder are more likely to have crashes related to excessive daytime sleepiness. Research has identified young males, shift workers, commercial drivers and people with untreated sleep disorders or with short-term or chronic sleep deprivation as being at increased risk for having a fall-asleep crash.

Specific At-Risk Groups

- Young people-especially males under age 26
- Shift workers and people with long work hours-working the night shift increases your risk by nearly 6 times; rotating-shift workers and people working more than 60 hours a week need to be particularly careful
- Commercial drivers-especially long-haul drivers at least 15% of all heavy truck crashes involve fatigue
- People with undiagnosed or untreated disorders-people with untreated obstructive sleep apnea have been shown to have up to a seven times increased risk of falling asleep at the wheel
- Business travelers-who spend many hours driving or may be jet lagged

Are You at Risk?

Before you drive, consider whether you are:

- Sleep-deprived or fatigued (6 hours of sleep or less triples your risk)
- Suffering from sleep loss (insomnia), poor quality sleep, or a sleep debt

- Driving long distances without proper rest breaks
- Driving through the night, mid-afternoon or when you would normally be asleep
- Taking sedating medications (antidepressants, cold tablets, antihistamines)
- Working more than 60 hours a week (increases your risk by 40%)
- Working more than one job and your main job involves shift work
- Drinking even small amounts of alcohol
- Driving alone or on a long, rural, dark or boring road

Warning Signs

Your eyelids droop and your head starts to nod. Yawning becomes almost constant and your vision seems blurry. You blink hard, focus your eyes and suddenly realize that you've veered onto the shoulder or into oncoming traffic for a moment and quickly straighten the wheel. This time you were lucky; next time you could become the latest victim of the tragedy of drowsy driving.

According to the National Sleep Foundation's Sleep in America poll, 60% of Americans have driven while feeling sleepy and 37% admit to actually having fallen asleep at the wheel in the past year. However, many people cannot tell if or when they are about to fall asleep. And if sleepiness comes on while driving, many say to themselves, "I can handle this, I'll be fine." Yet they're putting themselves and others in danger. What they really need is a nap or a good night's sleep.

Here are some signs that should tell a driver to stop and rest:

- Difficulty focusing, frequent blinking, or heavy eyelids
- Daydreaming; wandering/disconnected thoughts
- Trouble remembering the last few miles driven; missing exits or traffic signs
- Yawning repeatedly or rubbing your eyes
- Trouble keeping your head up
- Drifting from your lane, tailgating, or hitting a shoulder rumble strip
- Feeling restless and irritable

Countermeasures

Before "hitting the road"

- Get adequate sleep—most adults need 7-9 hours to maintain proper alertness during the day
- Schedule proper breaks—about every 100 miles or 2 hours during long trips
- Arrange for a travel companion—someone to talk with and share the driving
- Avoid alcohol and sedating medications—check your labels or ask your doctor

Countermeasures to Prevent a Fall-Asleep Crash While Driving

- <u>Stop driving</u>
- <u>Take a nap</u>
- Drink a caffeinated beverage.
- <u>Be aware of rumble strips.</u>

Detection and Prevention

DID YOU KNOW?

100,000 crashes each year are caused by fatigued drivers

55% of drowsy driving crashes are caused by drivers less than 25 years old

Being awake for 18 hours is equal to a blood alcohol concentration (BAC) of 0.08%, which is legally drunk and leaves you at equal risk for a crash

How can you tell if you are "driving while drowsy"?

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Young people—especially males under 25 years old.

Shift workers and people with long work hours— working the night shift increases your risk by nearly six times. Rotating-shift workers and people working more than 60 hours a week need to be particularly careful.

Commercial drivers—especially long-haul drivers. At least 15% of all heavy truck crashes involve fatigue.

People with undiagnosed or untreated disorders—People with untreated obstructive sleep apnea have been shown to have up to a seven times increased risk of falling asleep at the wheel.

Business travelers—who spend many hours driving or may be jet lagged

Adequate Sleep and Planning

Before hitting the road, drivers should:

* *Get a good night's sleep*. While this varies from individual to individual, sleep experts recommend between 7-9 hours of sleep per night for adults and 8 1/2-9 1/2 for teens.

* **Plan to drive long trips with a companion**. Passengers can help look for early warning signs of fatigue or switch drivers when needed. Passengers should stay awake to talk to the driver.

* Schedule regular stops, every 100 miles or two hours.

* Avoid alcohol and medications (over-the-counter and prescribed) that may impair performance. Alcohol interacts with fatigue, increasing its effects — just like drinking on an empty stomach.

* **Consult their physicians** or a local sleep disorders center for diagnosis and treatment if they suffer frequent daytime sleepiness, often have difficulty sleeping at night, and/or snore loudly every night.

How can you prevent drowsy driving?

Here are some suggestions:

* Take a 15 to 20-minute nap. More than 20 minutes can make you groggy for at least five minutes after awakening.

* Consume the equivalent of two cups of coffee. Caffeine is available in various forms (e.g. soft drinks, energy drinks, coffee, tea, chewing gum, tablets) and amounts; remember, caffeine takes about 30 minutes to enter the blood stream and will not greatly affect those who regularly consume it. For best results, try taking caffeine and then a short nap to get the benefits of both.