

MONTANA TEEN DRIVER CURRICULUM GUIDE

Module 6.3 – Drowsy Driving - Lesson Plan

Student Objectives:

The student examines the effect of fatigue on the physical and mental condition of drivers; describes behaviors indicating driver fatigue; explores the hazards associated with driving while fatigued; and explains methods to delay or avoid driving while fatigued and drowsy.

The student is expected to describe:

- a) the physical and mental effect of fatigue on driver behavior;
- b) the importance of sleep and its effect on performance;
- c) the physical and mental symptoms of fatigue on the driving task;
- d) methods to prevent driving while fatigued and drowsy.

Materials Needed:

- 1. **Module 6.3 PowerPoint Presentation**
- 2. **Module 6.3 Fact and/or Work Sheets (printed for each student)**
- 3. **Module 6.3 Lesson Plan/Teacher Commentary (printed out)**

TEACHER COMMENTARY

The following are questions you can ask during the presentation to engage students and have them develop key concepts related to Drowsy Driving.

Representation of the module slides are provided to allow you to connect the materials, data, and questions with the presentation.

Slide 2: Objectives – Drowsy Driving

Students will understand and be able to explain:

- the physical and mental effects of fatigue on driver behavior;
- the importance of sleep and its effect on driving performance;
- the physical and mental symptoms of fatigue on the driving task;
- the driving hazards associated with drowsy driving;
- and methods to delay or avoid driving while fatigued and drowsy.

Objectives – Drowsy Driving

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- the driving hazards associated with drowsy driving;
- and methods to delay or avoid driving while fatigued and drowsy.



Slide 3 – What is driver fatigue?

Falling asleep is actually an extreme form of fatigue.

When we don't get adequate sleep, we accumulate a sleep debt that can be difficult to "pay back" if it becomes too big.

The resulting sleep deprivation has been linked to health problems such as obesity and high blood pressure, negative mood and behavior, decreased productivity, and safety issues in the home, at school, on the job, and on the road.

What is driver fatigue?



Fatigue is:

- tiredness
- drowsiness
- exhaustion
- Fatigue can impair your driving long before you "nod off" at the wheel.




Slide 4 – Why is driving drowsy dangerous?

It is dangerous to drive drowsy because:

- your reactions are much slower,
- your ability to concentrate is reduced,
- it takes longer to interpret and understand the traffic situation.

Why is driving drowsy dangerous?






Slide 5 – Drowsy Driving = Impaired Driving

Being awake for 18 hours straight is equal to a blood alcohol concentration of 0.08%, which is legally drunk. If you don't get the sleep you need, you could be as impaired as someone who is drunk behind the wheel.

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Slide 6 – Teens and Sleep



Sleep Tips: Get Better sleep on a regular basis

- During your breaks, try exercising, walking or even napping if possible.
- Know the side effects of medications—sleepiness is commonly overlooked.
- If you're sleepy at the end of your school day or work shift, take a short nap and/or drink two cups of coffee before driving home.

Teens and Sleep

Why are young drivers more likely to drive drowsy?

- Teens need at least 8 to 9 hours of sleep each night
- Teen's internal biological clocks keep them awake later in the evening and keep them sleeping later in the morning
- Lifestyle habits (socializing, video games, etc.)
- Demands of school, sports and work schedules

Slide 7 – Get a good night’s sleep

- Establish a regular, relaxing bedtime routine.
- Avoid caffeine several hours before bed.
- Avoid screen time with computers, smart phones or TV, before bed—it makes it difficult to maintain uninterrupted sleep.



Slide 8 – Student Discussion

- In groups of 3-4 discuss the symptoms of fatigue.
- Share a time you needed to stay awake, but could not.
- Why did this happen and what did you do about it?
- What are the most effective ways to avoid driving drowsy?
- What should you do if you can’t avoid it?

Student Discussion

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- Share a time you needed to stay awake, but could not.
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Slide 9 – Why is driving fatigued a problem?

Fatigued drivers can have poor concentration and judgment.

Sleepy drivers drift out of their lanes or off the road.

Fatigued drivers are also likely to be in rear-end and head-on collisions.

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Slide 10 – Tired drivers take longer to react. Drive fresh.

<http://www.nzta.govt.nz/site-resources/content/about/img/advertising/fatigue-bus-back.jpg>




Slide 11 – How serious is drowsy driving?

<http://www.nzta.govt.nz/about/advertising/fatigue>

How serious is drowsy driving?

- Nationally, 100,000 crashes each year are caused by fatigued drivers.
- One in eight fatal crashes are due to drowsy driving.
- Young drivers (16-24) are twice as likely to be involved in a drowsy driving crash as drivers age 40-59.
- Men have twice as many drowsy driving crashes as women.



Source: AAA Foundation for Traffic Safety

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Tired drivers take longer to react

Slide 13 – Are you at risk of driving drowsy?

- 1. Six hours of sleep or less triples your risk of a crash.**
- 2. It's important to have places to pull over or stop to rest if you're driving more than two hours in one stretch.**
- 3. Most people get sleepy in the late afternoon and early hours of the morning, or whenever you would normally be sleeping.**
- 4. Anti-depressants, cold tablets, and antihistamines carry warnings against driving while under their influence.**
- 5. Working more than one job, and your main job involves shift work. Working more than 60 hours a week increases your risk by 40%.**

Are you at risk of driving drowsy?

Before you drive, ask yourself:

1. Did I get enough sleep last night?
2. Am I driving a long way without many rest stops?
3. What time of day or night?
Am I going to drive when I'm usually sleeping?
4. Am I taking medications?
5. How's my workload?
Am I driving alone?
6. What is the driving environment? Stimulating or monotonous?



Slide 14 – You hit the road, but ...


It's easy to convince yourself that you can still concentrate on the road despite being tired. Only older people and truck drivers fall asleep behind the wheel, right?

Unfortunately, this is not true. Research has shown that fatigue also affects young people and can cause crashes by slowing reaction time, reducing awareness, and impairing judgment.

Let the warning signs be a warning to take a break from driving and rest.

You hit the road, but ...

- You yawn frequently.
- Your eyes feel sore or tired.
- You're bored, irritable, or restless.
- It takes you longer to react.
- It's difficult to concentrate.
- You don't check your driving mirrors as frequently.
- You weave and wander out of your lane.
- Your driving speed is inconsistent; you find yourself driving faster or slower.
- You brake suddenly.
- You miss an exit or a turn.
- You start "seeing things".
- You have difficulty keeping your head up or eyes open.




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Slide 15 – Video: Almost Home

This video is 18 minutes long, but contains four different stories about the tragic consequences of drowsy driving. You can play the entire video or just show a portion of it.

Source: National Road Safety Foundation (<http://www.nationalroadsafety.org/teenlane/programs/drowsy-driving>).

Video: Almost Home



Click to begin video.


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Slide 16 – You snooze, you lose ...

- 37% of drivers admit to falling asleep while driving
- Drowsy drivers drift out of their lane or off the road
- Most people get sleepy in the late afternoon and early morning, or whenever you would normally be sleeping.

You snooze, you lose ...

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You snooze, you lose ... your life, your mom, your friend, someone's son.

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Slide 17 – Staying awake while driving

Caffeine and other quick fixes might give you a boost of energy or alertness for a very short time, but their effect will soon wear off and you will feel as tired and drowsy as before – if not more.

The only thing that works is getting enough sleep before your trip and if that's not possible, taking regular nap breaks on the way.

Staying awake while driving

To overcome fatigue do you:

- Drink coffee or caffeinated drinks or take caffeine pills?
- Open windows?
- Turn on the air conditioner or fan?
- Talk to passengers?
- Eat?
- Stop to walk or exercise?
- Listen to loud music?



The problem is NONE of these work.

Source: Youth and Road Safety Action Kit, Y0105 – Youth for Road Safety (www.youthroadsafety.org)

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Slide 18 – Always drive rested and alert

If you are tired, listen to your body and get some rest before you endanger yourself and others by driving drowsy.

Always drive rested and alert



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Slide 19 – Wake up and get some sleep

- **Sleep Tips: Hitting the rumble strips isn't the way to stay awake—getting good quality sleep is.**
- **Use a car pool so that you're driving with someone else awake in the car.**



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- Use a car pool so that you're driving with someone else awake in the car.

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Slide 20 Rumble Strips

Rumble strips are deep grooves placed on high-speed roads to alert drowsy drivers and prevent them from veering off the roadway or across the centerline. If you wander to the shoulder of the road and feel the sudden bumps of a rumble strip, don't panic. Stay in your lane. You might be too drowsy to drive. Pull off the road as soon as possible

Rumble Strips

An early warning system to reduce road departure crashes:



Stay alert. Do not panic. Stay in your travel lane.

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Slide 21 Drowsy – What can you do?

OPTIONS: Call your parents, a friend or a taxi to drive you home.
Find a place to rest for the night.
If you must drive, make sure you have not consumed any alcoholic beverage or prescription drug before driving, in any amount.
Plan your route and make sure you can pull over to rest for at least 20 minutes at a time.
Keep your seat belt on and reduce all distractions.
Stay alert and arrive alive.

If you're too drowsy to drive, what can you do?



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Slide 22 Sleep Debt

Sleep debt is the difference between the amount of sleep you need and the amount you actually get. The American Academy of Sleep Medicine recommends the illustrated amounts of sleep at each stage of growth.

“Studies show that such short-term sleep deprivation leads to a foggy brain, worsened vision, impaired driving, and trouble remembering.”

To recover lost sleep - tack on an extra hour or two of sleep each night to catch up. Go to bed when you are tired and wake in the morning without an alarm.”

Source:

<http://www.scientificamerican.com/article/fact-or-fiction-can-you-catch-up-on-sleep/> May 2008

Researchers found that college students who pull all-nighters to prepare for tests tend to have lower grade point averages than those who get regular sleep.

Snooze, you win? Stanford University researchers monitored members of the school's men's basketball team during two weeks of regular sleep cycles and then two weeks with extra sleep. With extra sleep the athletes reported increased energy; faster sprint times; and better free-throw shooting. Source:

<http://med.stanford.edu/ism/2011/july/sleep.html>



Slide 23 DRIVE FRESH.

Tired drivers leave one tell-tale sign. No skid marks.

New Zealand



Slides 24- 25 OPI Standards and Benchmarks

Montana Driver Education and Training Standards and Benchmarks

- 1. Learner Objectives**
 - 1.1. Know the basic components of the Montana Driver's License and the requirements for obtaining a Montana Driver's License.
 - 1.2. Understand the importance of the Montana Driver's License and the requirements for obtaining a Montana Driver's License.
 - 1.3. Understand the importance of the Montana Driver's License and the requirements for obtaining a Montana Driver's License.
- 2. Responsibility**
 - 2.1. Understand the importance of driving with responsibility and understanding the consequences of driving without responsibility.
 - 2.2. Understand the importance of driving with responsibility and understanding the consequences of driving without responsibility.
 - 2.3. Understand the importance of driving with responsibility and understanding the consequences of driving without responsibility.
 - 2.4. Understand the importance of driving with responsibility and understanding the consequences of driving without responsibility.
- 3. Road Skills**
 - 3.1. Understand the importance of driving with responsibility and understanding the consequences of driving without responsibility.
 - 3.2. Understand the importance of driving with responsibility and understanding the consequences of driving without responsibility.
 - 3.3. Understand the importance of driving with responsibility and understanding the consequences of driving without responsibility.
 - 3.4. Understand the importance of driving with responsibility and understanding the consequences of driving without responsibility.
- 4. Vehicle Control**
 - 4.1. Understand the importance of driving with responsibility and understanding the consequences of driving without responsibility.
 - 4.2. Understand the importance of driving with responsibility and understanding the consequences of driving without responsibility.