

TEENS AND DROWSY DRIVING:

WHAT WE KNOW FROM A SLEEP MEDICINE PERSPECTIVE

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* Drowsy Driving

- * According to 2010 **AAA** study that reviewed 14,268 crashes
 - * 1 out of 6 (16.6%) deadly traffic accidents were due to drowsy driving
 - * 1 out of 8 (12.5%) traffic accidents requiring hospitalization of driver or passengers caused by drowsy driver
 - * 41% of drivers admitted to have fallen asleep behind the wheel at some point.

- * According to 2009 **National Sleep Foundation** survey
 - * 54% reported driving drowsy in past year
 - * 28% reported driving drowsy at least once a month



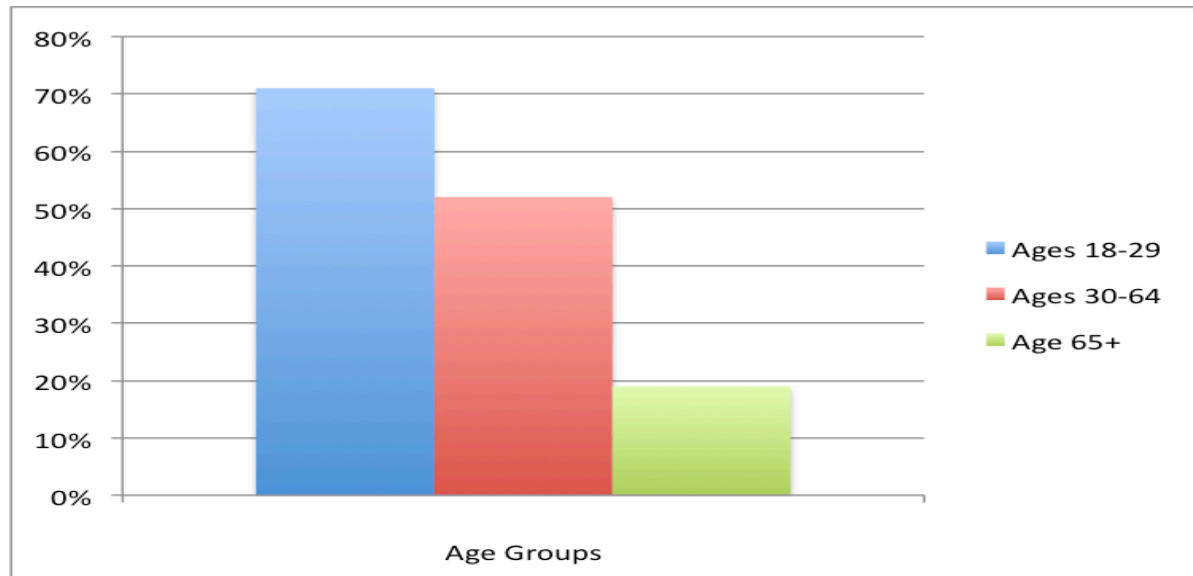
So, what does this have to do with Teens?



*Teens and young adults drive drowsy too!!

- * According to a 2002 **National Sleep Foundation** Poll
 - * Adults between 18 and 29 are more likely to drive drowsy when compared to all other age groups.

% Drowsy Drivers per Age Group



- * **The National Highway Traffic Safety Administration**
 - * **(NHTSA)**

- * Estimates that at least 100,000 police-reported crashes a year are the direct result of driver fatigue
- * More than 50% of those 100,000 crashes involve drivers in the 16-25 years of age range.



* A 2015 Web-based Injury Statistics survey from the **Center for Disease Control and Prevention** showed:

- * Every day 6 teens aged from 16-19 died from motor vehicle injuries
- * In 2013 teens in the 15-19 year old group represented only 7% of U.S population but accounted for 11% of the total costs of motor vehicle injuries
- * Motor vehicle accidents were listed as the number one killer of teens in the U.S.

Why are so many teens and young adults driving while drowsy?



* Are you getting enough sleep at night?

- * Sleep Medicine experts recommend 7-9 hours of sleep a night for adults.
- * For teens that number goes up to 8 ½-9 ½ hours of sleep.

The Center for Disease Control Survey results from over 50,000 high school students.

- * 60% of 9th graders and 77% of 12th graders reported getting less than 7 hours of sleep a night.

*“But I don’t get 8 ½ to 9 ½ hours of sleep at night and I operate just fine!!!!”



* **Studies have shown direct relations between a decrease in amount of sleep and:**

- * Decrease in reaction time
- * Decrease in psychomotor coordination
- * Decrease in information processing skills
- * Decrease in vigilance
- * Poor decision making.

Some of these impairments may not be noticeable to the driver but they are still enough to potentially cause an accident

Other studies have gone as far to show that:

- * Moderate sleep deprivation (17 to 19 hours without sleep) produces impairment equal or worse than having a BAC level of .05 which is only slightly under the DUI limit of .08

*So, all I need to do is sleep
more?



he has life figured out

* Circadian Rhythm

- * Your 24 hour biological clock influences when you are more apt to be awake or sleeping
- * For adults the circadian rhythm dips from 2-4am and 1-3 pm. These are times of the day that you are more likely to be sleepy.
- * Teens experience a delay in their circadian rhythms
- * This delay makes it hard for a teen to fall asleep before 11pm and pushes their wake up time to around 8am
- * A teen's circadian rhythm "dips" are pushed back to **3-7am** and **2-5pm**
- * Some studies show that if you deprive yourself of sleep, your circadian dip can extend to **3-9am** or **3-10am**

* Get the proper amount of sleep at the proper time.

- * Try and get the recommended 8 ½ to 9 ½ hours of sleep
- * Don't delay your bed time
- * When it comes to driving, try and avoid driving during the times when you are experiencing a circadian rhythm dip. (This gets extremely hard to do if you are sleeping less than 7 hours a night)

Sleep Debt

- * Builds up over consecutive nights of not enough sleep
- * Impairs functioning the same way staying up for long periods of time
- * Studies show that one long recovery sleep after accumulating sleep debt does not fully reverse the impairments from being sleep deprived.
- * Can cause a false sense of alertness when driving after a long recovery sleep.

Cell Phone and Tablet Usage

- * Use of cell phones and Tablets (or Laptops) has been shown to delay the time you fall asleep.
- * Keeping these devices out of bed is not enough
 - * Studies show that the light emitted from electronic devices delays your circadian rhythm even if you don't bring the device to bed with you.
- * Psychological Insomnia can occur



Other causes of inadequate sleep

- * Interruptions from sleep (i.e. pets, phone calls, etc.)
- * Sleep Disorders
 - * Studies show that up to 30 percent of all children have some form of sleep disturbance
 - * Sleep Apnea prevalence in Teens increases with weight gains
 - * Narcolepsy will manifest as excessive sleepiness even after a full night of uninterrupted sleep.

Points to remember

- * Get the minimum recommended amount of sleep
- * Avoid delaying your sleep time
 - * Keep cell phones and computers out of bed
 - * Try to stop usage of electronic devices at least 30 minutes before going to bed
- * Try to avoid driving during (3-7am and 2-5pm) when your circadian rhythm is in a “dip”
- * Sleep Debt is not easy to repay.
- * If you are sleeping enough and following other recommendations but still are drowsy then you may want to see your physician as there could be a medical reason for your sleepiness.

- * You can't “will” yourself to stay awake
 - * All the caffeine, loud music, etc. will not keep you awake or safe when driving while sleep deprived.



QUESTIONS?