

Ways That Marijuana Impairs Driving

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Smoking marijuana can seriously impair the ability to drive a motor vehicle safely, but many marijuana users actually believe they drive better while under the influence of cannabis.

An article on this website titled *Marijuana Causes Many Deaths Reported as 'Accidents'*, drew comments from many self-reported marijuana users who insisted their driving is not affected by being high, and in fact, some were adamant that their driving skills actually improve under the influence.

But scientific research does not back up these claims. The National Highway Traffic Safety Administration **reviewed 25 published studies** conducted on the effects that smoking marijuana has on driving skills and performance. The review was part of the agency's effort to determine the effects on driving of more than 16 illegal and prescription drugs.

The resulting NHTSA Fact Sheets not only outlined the overall effects of smoking marijuana on users, but detailed specifically how smoking weed can impair driving skills. Following are some of the findings.

1. Problem Solving

One of the known effects of marijuana is that it hampers the ability call on past experiences to solve immediate problems, which could be dangerous in an emergency traffic situation. Studies have also shown that marijuana can cause problems with memory and learning, distorted perception, and difficulty in thinking.

2. Attention Span

Research has shown that heavy users of marijuana have difficulty in sustaining attention over an extended period of time. Other studies have found that weed smokers are hampered in shifting attention to deal with changes in their environment. Heavy smokers also have problems registering, processing and using new information. All of these factors can hamper driving ability.

3. Driving Performance

Several studies have reported that marijuana users exhibit decreased vehicle handling performance, increased reaction times and impairment in estimating time and distance. Other studies have found that marijuana impairs the driver's ability to maintain headway and maintain sustained vigilance.

4. Perceptual Functions

Laboratory studies of drivers using marijuana have found that smokers' sensory functions are not severely impaired, but their perceptual functions are significantly altered. Researchers report lab results that sleepiness and uncoordination can also affect driving skills of smokers.

5. Dose-Related Impairment

Several studies have shown that driving impairment is dose-related. In other words, the more someone has smoked, the greater the impairment. This is particularly true in regards to the ability to concentrate and maintain attention, and for hand-eye coordination.

6. Distortion

Other skills impaired by marijuana use that can cause the loss of driving ability include distortion of time and distance, impairment of retention time and tracking, and vigilance and loss of coordination. These impairments can be dangerous when driving at higher speeds or over longer periods of time, research shows.

7. Short-Term Focus

Some studies have shown that marijuana users can indeed focus their concentration and actually improve their driving performance by overcompensating for their self-perceived impairment. However, drivers in these studies were able to do this for only a brief period of time. The greater the demands placed on the driver in these studies, the less they were able to overcome their impairment.

8. Prolonged Trips

Research has found that smoking marijuana can have significant impairment during monotonous or prolonged driving. The longer the drive, and the more monotonous the driving becomes, the greater the chance that reaction times are impaired.

9. Long-Term Effects

Generally, marijuana use significantly impairs a driver's skills for the first 1-2 hours, but driving simulator studies have found impaired skills up to 3 hours. Some studies have recorded residual effects on driving up to 24 hours after marijuana use.

10. Increases Alcohol's Effects

Studies have found that simultaneously smoking marijuana and drinking greatly increases the impairment effects of both drugs. Experts say that mixing alcohol and marijuana does not have an additive effect on driving skills, but a multiplying effect. The resulting impairment is greater than either drug would be by itself.

Sources:

National Highway Traffic Safety Administration. "Drugs and Human Performance Fact Sheets: Cannabis / Marijuana." March 2004

National Highway Traffic Safety Administration. "Drug-Impaired Driving: Understanding the Problem and Ways to Reduce It: A Report to Congress (PDF)" December 2009