What is Impairment?

People recognize the physical signs of alcohol impairment. These outward signs include stumbling, slurred speech, poor coordination and blurred vision. Alcohol acts primarily on nerve cells and interferes with communication between nerve cells slowing everything down. This is because alcohol is a central nervous system depressant, effecting an individual’s emotions, judgement, balance, memory, and speech.

The areas of the brain involved include:

- **The Cerebral Cortex**: This area controls an individual’s senses and inhibitory centers, which is why a person may become more talkative; seem more confident and less socially inhibited. Their thought process is effected and interferes with their ability to make good judgment or think clearly.

- **The Frontal Lobes**: This area is important for planning, forming ideas, making decisions and self-control. When alcohol effects the frontal lobe it may be hard for an individual to have self-control, regulate their emotions and control their urges. They may act without thinking or behave completely out of character.

- **The Cerebellum**: This area is important for coordination, thinking and being aware. People may have trouble with these skills when under the influence of alcohol; they may stagger, lose their balance or fall.

- **The Hippocampus**: This area of the brain is where memories are made. When this part of the brain is effected by alcohol a person may have trouble remembering, experience a partial blackout (memory can be triggered when someone tells us about an event) or a full black out. If alcohol damages the hippocampus, it will make it difficult for a person to learn or remember things in the future.

- **The Hypothalamus**: This is a small area in the brain, which controls many bodily functions. After ingesting alcohol a person’s blood pressure, hunger, thirst, and the urge to urinate increases while, body temperature and heart rate decreases.

- **The Medulla**: When this area is effected, the body’s automatic actions such as heart rate and body temperature is impacted. This can result in unconsciousness, coma and death.
Sometimes people will think they are safe to drive because they are not yet feeling the physical signs of impairment. Others may believe that their friends are safe too because they do not observe the physical signs associated with alcohol impairment.

It is important to note that the brain becomes impaired before the physical signs of impairment are evident.

Marijuana Impairment

Sometimes we hear people say that marijuana is safer than alcohol. “Marijuana significantly impairs judgment, motor coordination, and reaction time, and studies have found a direct relationship between blood THC concentration and impaired driving ability” (Online: https://www.drugabuse.gov/publications/research-reports/marijuana/does-marijuana-use-affect-driving).

With the legalization and increase in use, marijuana after alcohol, is the drug most often linked to drugged driving. The CDC reported, “marijuana negatively affects a number of skills required for safe driving:

- Marijuana can slow your reaction time and ability to make decisions.
- Marijuana use can impair coordination, distort perception, and lead to memory loss and difficulty in problem-solving.
- The risk of impaired driving associated with marijuana in combination with alcohol appears to be greater than that for either by itself.

(Online: https://www.cdc.gov/marijuana/factsheets/driving.htm).

To Learn More:

Buzzed Driving is Drunk Driving

YouTube Video: Back Roads- Buzzed Driving Prevention [43 seconds]

https://www.youtube.com/watch?v=CgZm49_82KA

NHTSA- National Highway Traffic Safety Administration

https://www.nhtsa.gov/risky-driving/drunk-driving

Have a Safe and Happy Holiday Season!

For Comments on this, newsletter or suggestions for future articles please contact:

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