

## Hypoglycemia and Motor Vehicle Accidents

**Case Report:** *J.B. was a 21 year old male with longstanding Type 1 diabetes in poor control. His blood sugars ranged from 30 to 500 throughout the week (normal 70-110), and he was not routinely checking his blood sugars multiple times daily. J.B. typically suffered from several hypoglycemic episodes each week (defined as low blood sugar <70), many of which required the assistance of another person.*

*One afternoon J.B. asked a fellow employee to follow him in her car to the auto mechanic so that he could drop his car off for repairs. She sat in her car in their parking lot for some time before he drove up beside her. He acted strangely, not saying anything to her, and she observed him sweating profusely and staring straight ahead. Suddenly, he took off travelling up to 60 mph on a major four lane thoroughfare (the posted speed limit was 35 mph). J.B.'s colleague witnessed him swerving at times into oncoming traffic, ultimately and tragically driving into a parked tractor trailer truck in the right hand lane at high speed. The truck had its rear flashers engaged and was able to be seen for about 200 feet. The truck driver was waiting to make a left hand turn into a chained lot on the other side of the road. J.B. died instantly.*

J.B.'s parents brought a lawsuit against the corporate owner of the parked tractor trailer truck, contending that the truck should not have been temporarily located in the right hand lane.

According to the 2014 National Diabetes Statistics Report there are currently 29.1 million people in our country with diabetes (9.3% of the population). People with Type 1 diabetes (i.e. autoimmune diabetes requiring insulin), and people with Type 2 diabetes treated with insulin or certain oral diabetes medications (i.e. sulfonylureas or meglitinides) are susceptible to hypoglycemia. Hypoglycemia is defined as a blood sugar <70, and it can cause a variety of symptoms including sweating, nervousness, tremors, and palpitations. More significant hypoglycemia (i.e. blood sugar <50) can cause confusion, double vision, impaired judgment, seizures, brain damage, coma, and death. Multiple studies demonstrate that moderate hypoglycemia significantly and consistently impairs driving safety and judgment.

People with diabetes should be trained by their health care providers to recognize hypoglycemia and to treat it as early as possible. Several well-established safety recommendations include: wearing or carrying an identification stating that one has diabetes, carrying a fast-acting source of glucose, early and effective treatment of hypoglycemia, and making certain not to drive or use dangerous equipment when hypoglycemic. Patients at risk for hypoglycemia should check their blood sugars at least four times daily.

Many states require that drivers with diabetes report their disease to the DMV. Health care providers are often asked to complete a questionnaire regarding their patient's diabetes and their ability to drive safely. In addition, strict guidelines apply to the granting of commercial driver's licenses to people with diabetes.

Health care providers should identify any patient with diabetes who is at increased risk for a motor vehicle accident. Following an evaluation, the health care provider should recommend suspension of driving for those individuals who pose a safety threat.

The 2014 American Diabetes Association Position Statement entitled: “Diabetes and Driving” recommends the following:

- a. Judge each person with diabetes individually with regard to their ability to drive safely.
- b. Identify people with diabetes who are at high risk for motor vehicle accidents by virtue of their prior history of severe hypoglycemia, motor vehicle accidents caused by hypoglycemia, or the presence of hypoglycemia without any of the usual or subtle symptoms of hypoglycemia (i.e. hypoglycemia without awareness).
- c. Identify people with diabetes who are at high risk for motor vehicle accidents by virtue of chronic complications of diabetes that could interfere with driving. These could include poor vision, severe neuropathy causing insensitivity in the right foot, and other forms of neurological or cognitive impairment.

It is our hope that these measures can decrease the frequency of tragedies such as the one that befell J.B. and his family in the above Case Report. The case was decided by a jury in favor of the defense.

In conclusion, hypoglycemia in people with diabetes can increase their risk of a motor vehicle accident. A concerted effort on the part of both health care providers and patients can significantly decrease these risks and possibly prevent such tragedies.

**About the author;**

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