# DIABETES AND A DWI/DUI CHARGE

There is a motor vehicle accident and police respond to the scene. The driver exhibits a number of the indicia to impairment, including staggering, slurred speech, disturbance of orientation, drowsiness, disordered thoughts, and shock.. The driver is arrested and submits to a breath test, with results reported in excess of the legal limit.

Was the driver actually violating the DWI statute? Was he or she driving while impaired due to the consumption of alcohol or drugs? Not necessarily, because this driver was a **diabetic**.

The symptoms displayed by diabetics in the states of low blood sugar (hypoglycemia) and high blood sugar (hyperglycemia) can be remarkably similar to symptoms caused by excess alcohol consumption. This can, and certainly has, resulted in erroneous conclusions by law enforcement officers on the road, followed by unfair criminal charges.

We are in the midst of a huge diabetes epidemic today. Diabetes has always been a relatively common disease, but recently the numbers of those suffering from the condition have been rapidly increasing. More than 18 million people in the United States alone suffer from this disease. Nearly one-third of those individuals may be undiagnosed, due to the failure to recognize the most common warning signs related to this disease.

A person with low blood glucose (hypoglycemia) may experience dizziness, slurred speech, blurred vision, muscle weakness, loss of coordination, and confusion. In high blood sugar (hyperglycemia) situations, the person can suffer from blurred vision, fatigue (sleepiness), dry mouth (with effects on speech), hyperventilation, cardiac arrhythmia, and stupor. Left untreated, these conditions can result in coma, or even death. But in the context of a DWI case, these physical manifestations are the very signs that the patrol officer is looking for to confirm a suspicion of driving while intoxicated.

But, you ask, don't the breath test results clear this up and confirm the officer's conclusion that the driver was impaired due to alcohol? The answer, may surprise you.

Breath testing relies on technology that can incorrectly identify other substances in the breath as alcohol. Light beams are used in these machines (infrared spectrometry) to analyze the air blown into them. Different chemical components of the breath absorb varying amounts of the light beams directed at them and the machine supposedly checks this spectral analysis against computer records of known compounds. Unfortunately for diabetics, and others temporarily suffering from high or low blood sugar(it is important to note that you do not necessarily have to be a diabetic to experience low or high blood sugar and the attendant effects), the machines are not sophisticated enough to accurately distinguish between ethyl alcohol (the intoxicating component of alcoholic beverages) and other chemicals in the methyl group (a family of compounds which includes ethyl alcohol). Many of the thousands of compounds in the methyl group are close enough to register as alcohol in this type of testing.

Of particular concern for diabetics, is acetone, a member of the methyl group. The breath of a diabetic can contain significant amounts of acetones, when the diabetic is experiencing

ketoacidosis. Diabetic ketoacidosis results from a shortage of insulin. Individuals with diabetes are not able to properly produce or utilize insulin, which is a hormone the body requires in order to process starches and sugar into energy the body needs for most life activities. In response to ketoacidosis, the body switches to burning fatty acids and producing acidic ketone bodies that cause most of the symptoms and complications associated with high blood sugar. Ketoacidosis also causes the production of acetones in the breath, as the body, in self-defense, gets rid of these compounds in any way it can. Bottom line - the breath testing machine will read the ketones as significant levels of alcohol on a diabetic's breath and return false positive results.

For more information relating to this topic see:

**HYPOGLYCEMIA: DRIVING UNDER THE INFLUENCE**, by John Arnold, in Volume 8, Issue 1 of the Medical and Toxicological Information Review, September 2003 - http://www.medtoxinfo.com/news19.html and **Diabetes as a Defense** , on the American Prosecutors Research Institute website, Between the Lines - Volume 2, Number 1, 1994 - http://www.ndaa.org/publications/newsletters/between_lines_volume_2_number_1_1994.html

The latter article includes the following checklist:

> To determine if the defendant may have a valid diabetes defense, a prosecutor should ask the following questions:
>
> Do the defendant's medical records indicate that he/she is a diabetic?
>
> Was the defendant diagnosed with diabetes prior to or subsequent to his arrest?
>
> Does the defense plan to call an expert witness to testify that the defendant was suffering from low blood sugar at the time of the arrest?
>
> Is the expert witness the treating physician? Did he/she examine the defendant on the date of the arrest? Did the expert ever examine the defendant?
>
> Is the defendant an insulin dependent or non-insulin dependent diabetic? Non-insulin dependent diabetics are unlikely to even emit acetone from their breath.

As noted above, you do not have to be a diabetic to experience the effects of ketoacidosis. Healthy people can see the effect when dieting or fasting, for example. A false DWI charge can be the result.