

UNITED STATES DISTRICT COURT  
WESTERN DISTRICT OF TEXAS  
SAN ANTONIO DIVISION

JEFF KAPCHE,

Plaintiff,

vs.

CITY OF SAN ANTONIO,

Defendant.

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) CIVIL ACTION NO. SA-95-1215-EP  
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DECLARATION OF EDWARD S. HORTON, M.D.

I, Edward S. Horton, M.D., declare as follows:

1. **PROFESSIONAL BACKGROUND.** Currently, I am a professor of medicine at Harvard Medical School and Vice President and Director of Clinical Research at the Joslin Diabetes Center. The Joslin Diabetes Center is both the oldest and the largest clinical treatment and research center for diabetes in the United States. I am board certified in internal medicine and in endocrinology and metabolism. Presently, I am associate editor of *Diabetes*, an official publication of the American Diabetes Association and I have been on the editorial board or an editor of many other diabetes publications. I have published three books, nearly 100 original reports, and have written over 60 review articles and book chapters. My curriculum vitae is attached as Exhibit A to this declaration. The statements contained in this declaration are based upon my clinical, professorial, and publication and research experiences since 1957.

2. In 1990-91, I was President of the American Diabetes Association (ADA). The ADA is the oldest and largest voluntary health organization dealing with diabetes in the world. I have been involved with the American Diabetes Association since 1965, and



have served on innumerable committees and councils. Since 1984, the policy of the ADA regarding the employment of persons with diabetes has been:

**"Diabetes as such should not be a cause of discriminating against any person in employment. People with diabetes should be individually considered for employment, weighing such factors as the requirement or hazards of the specific job, and the individual's medical condition and treatment regimen (diet, oral hypoglycemia agents and insulin). Any person with diabetes, whether insulin-dependent or non insulin-dependent, should be eligible for employment for which he or she is otherwise qualified."**  
*American Diabetes Association Employment Policy Statement (1984).*

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3. The purpose of this declaration is to focus on the changes and improvement of diabetes care and technology during the last ten years. From the discovery of insulin in 1921 until the mid 1980s, the improvements in technology to treat diabetes evolved slowly, but inexorably. In the mid 1980s, the technology for treating diabetes rapidly progressed in an almost revolutionary manner that has continued up until the present time. Some of the most effective technology and treatment protocols for diabetes have been developed within the last ten years.

4. Never before has more research been underway concerning the cause of diabetes and its effective treatment. Presently, clinical research directed at developing better treatment of diabetes and its complications is growing at an astounding rate. This research is being funded by the federal government, various voluntary health agencies such as the ADA and the Juvenile Diabetes Foundation (JDF) and many for-profit pharmaceutical companies seeking to develop new products for the treatment of diabetes.

5. In the area of improved technology and treatment methods to care for people with insulin-requiring diabetes, the emphasis has been to improve blood glucose control

while avoiding episodes of hypoglycemia. This is accomplished by improved technology to monitor blood sugar levels as well as by better treatment protocols to insure that people with diabetes can effectively manage their own blood sugar level by adjusting their insulin doses and food intake throughout the day. The single most important task for people with diabetes is to maintain their blood sugar level within a near normal range, avoiding the chronic effects of high blood sugar (hyperglycemia) and the acute effects of low blood sugar (hypoglycemia). This balancing act is made possible by consumer-friendly technology to allow self monitoring and self treatment of blood glucose levels.

Self monitoring and self treatment protocols are now available for persons with diabetes who take insulin to allow them to safely perform virtually any job for which they are qualified.

6. In 1993, the most impactful clinical study of blood sugar regulation in type 1 diabetes was concluded. In the Diabetes Control and Complications Trial it was shown that intensive treatment of diabetes allowed better glucose control and significantly reduced complications related to diabetes in people with type 1. This conclusion was reinforced in 1998 by the United Kingdom Prospective Diabetes Study in people with type 2 diabetes. There is now ample scientific basis to show that aggressive diabetes self monitoring and self care can result in better control and fewer complications. These studies stimulated the development of many new blood glucose monitoring devices, new insulin preparations and improved insulin delivery systems to provide consumer friendly products to better self monitor and self treat diabetes.

7. Self monitoring by regular blood glucose testing has never been easier, more available, or more consumer friendly. Recently, many of the companies who have

historically sold blood glucose monitoring equipment have developed monitors which are small, rapid and convenient to use. Now the test results come within 15 to 30 seconds with only a small drop of blood which is absorbed and does not need to be wiped off. Many meters have memory systems that allow for review of blood glucose patterns throughout the day. Additionally, new lancets with high tech steel make drawing of blood less painful and very exact. In short, all of the self monitoring technology makes the testing safer, easier, more reliable, and more available.

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8. The Texas legislature, recognizing the importance and value of requiring insurance coverage for blood glucose monitoring, mandated insurance coverage, requiring reimbursement for such equipment and supplies after January 1, 1998. This means that all benefit plans in Texas are required to cover self monitoring equipment and supplies. This illustrates the importance of this equipment and supplies to help people with diabetes to better monitor and control their diabetes.

9. The most recent technology is an implanted blood glucose monitor, which allows the measurement of blood glucose levels every few minutes, and provides, in effect, a continuous monitoring of blood glucose levels for up to 72 hours. This product is inserted under the skin with data transmitted to a read-out that can be monitored continuously. Although presently this continuous glucose monitor (made by MiniMed) is available for use in doctors' office, it is anticipated that this equipment will be available to the general public for use outside of the office very soon. This technology, although relatively expensive, could be particularly helpful to any law enforcement officer or anyone who has to drive a vehicle as part of their job.

10. Another very significant development in diabetes technology is in insulin delivery systems. Now, one can deliver pre-set amounts of insulin via an "insulin pen" rather than with a syringe and needle. This means that the insulin is prepackaged and ready to inject without the need of drawing each dose out of a vial. This allows for very precise and convenient administration of insulin even while on the job. Additionally, insulin pumps allow for continuous delivery of insulin subcutaneously. The insulin pumps provide a particularly appropriate technology for the administration of insulin to people who have an active and variable lifestyle or work requirement. They are very accurate and can be programmed to accommodate a wide range and variety of activity levels during any given time period.

11. Since the early 1990s, there has been the development of several new insulins to accommodate a variety of needs for people with diabetes. In particular, in 1996, Lilly developed a very rapid acting insulin (Humalog), which acts within minutes to lower blood sugar and lasts only approximately two hours, which is just the right amount of time to cover a meal. In addition, this insulin is particularly ideal for use with an insulin pump as well as by people who have a very active lifestyle or employment. This type of insulin in conjunction with other insulins is now available to allow a person with diabetes to custom fit the insulin type and dosage to the variability of their daily activities. In addition, a new long-acting "basal" insulin has been developed by Hoechst. It has been approved by the FDA and will soon be available for use. Never before have people with diabetes been able to develop and use such customized and effective insulin regimens.

12. In addition to the above technological advances, in recent years there have been a number of employment protocols developed for people with diabetes who take

insulin. In 1996, the Federal Aviation Administration (FAA) approved a protocol to allow a person who takes insulin to obtain a private pilot's license. The FAA protocol required a variety of monitoring techniques to insure that a person with insulin does not suffer a hypoglycemic episode while flying an airplane. See: 14 C.F.R. §67.401 & 61 Fed. Reg. 226 at 39282 (11/21/96). A similar protocol is now under study by the Department of Transportation regarding commercial driving license approval for persons who take insulin to treat their diabetes. From 1993 to 1996, the Federal Highway

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Administration created a protocol to test the safety of allowing persons taking insulin to obtain commercial driver's license (CDL). The result of that study was that drivers with a CDL who took insulin had a lower accident rate if they followed the protocol. See 49 C.F.R. §§ 391.49 & 391.64 & 61 Fed. Reg. At 609 (1/8/96). Additionally, in 1998, the Department of Justice has compelled both Arizona and North Carolina to adopt driving protocols for self-monitoring school bus drivers who take insulin to treat their diabetes. All these protocols show that there are a variety of ways to structure self monitoring and self treatment so as to allow a person with diabetes to safely perform a job that requires driving a vehicle.

13. As a result of the development and improvement of diabetes technology and treatment protocols, people with diabetes are much better able to self monitor, self control and self treat their diabetes and can be anticipated to lead long and healthy lives without long term diabetic complications. In the 1960s, people who lived with diabetes and without complications for 25 years were given medals by the Joslin Clinic. Today, survival of 50 years or more is commonplace. Additionally, people with diabetes who take insulin are now employed in almost every type of work for which they are qualified.

It is simply not consistent with current medical research or knowledge to treat people with diabetes in any way other than as an individual. All protocols for the treatment of diabetes now require individual assessment and the creation of a treatment program that is tailor fit to each individual's needs. There are both appropriate technology and treatment protocols to provide effective, workable and safe management of diabetes in the workplace. A blanket prohibition against driving by people with diabetes who take insulin is both archaic and unnecessary.

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14. I have treated individuals who take insulin to treat their diabetes who are employed in law enforcement or in other "high risk" occupations. There is no reason why a person with insulin treated diabetes cannot be an effective and safe law enforcement officer if they are committed to following an appropriate protocol to insure effective self-monitoring and self treatment of their diabetes.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Signed this 24<sup>th</sup> day of May, 2000.

  
Edward S. Horton, MD.

SUCSCRIBED AND SWORN to before me this 24 day of May 2000.

  
Notary Public of Massachusetts  
My Commission Expires Sept 21 2001  
101097 DDP

UNITED STATES DISTRICT COURT  
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JEFF KAPCHE,

Plaintiff,

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ADDENDUM TO THE  
DECLARATION OF EDWARD S. HORTON, M.D.

I, Edward S. Horton, M.D., hereby declare as follows:

1. Attached hereto as Exhibit "A" is a copy of my Declaration signed on May 24, 2000. I reaffirm the content thereof in its entirety as being true and correct.
2. Upon reviewing the City of San Antonio Functional Job Analysis and the Declaration of Richard Gleinser, Deputy Chief of the San Antonio Police Department Criminal Investigation Division, I reaffirm my stance that a blanket exclusion of Type I insulin-dependent diabetics is not warranted for the position of police officer with the San Antonio Police Department.

I declare under penalty of perjury that the foregoing is true and correct.

Signed this 7 day of June, 2000.

  
Edward S. Horton, M.D.

