

Discrimination on high: *flying on insulin*

✉ Stephen C Steele

For the safety of the passengers and crew of an aeroplane, it is imperative that an airline pilot maintain a high level of fitness. There are a number of medical conditions which, once diagnosed, may prevent a pilot being allowed to fly a plane. If they can be stabilized, some conditions may allow a return to work. Other conditions are classed as 'non-medically certifiable'. Upon diagnosis of a non-medically certifiable condition, a pilot's medical certificate will be denied, and if already issued, it will be revoked. In these cases, the pilot cannot fly, and is forced to discontinue their chosen career. Insulin-treated diabetes has until recently been classified as a non-medically certifiable condition. Pilot Stephen Steele looks at the issues concerning people with diabetes who fly aircraft.



In May 1986, as an airline pilot with one of Canada's major airlines, I completed my annual medical check-up satisfactorily. A few weeks later, I began showing symptoms consistent with diabetes. The diagnosis was confirmed; I required insulin to control my diabetes. I had been flying aeroplanes for 14 years, eleven of those as an airline pilot. However, as I was given the

diagnosis of Type 1 diabetes, my career was taken away. I was permanently grounded.

As a signatory to the Convention on International Civil Aviation, Canada had adopted measures similar to those of the International Civil Aviation Organization (ICAO) regarding the medical certification of people with diabetes who fly aircraft.

Until fairly recently, ICAO certified as fit to fly only pilots with diabetes whose condition could be controlled with diet alone. No country had authorized the medical certification of people with insulin-treated diabetes to pilot an aircraft.

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Safety and discrimination

Safety in the air is supremely important; pilots need to be medically fit. And legislation is rightly in place in order to ensure that safety is not compromised by the poor medical fitness of a pilot. However, people with diabetes should not be denied the opportunity to demonstrate to health professionals and government licensing authorities their ability to effectively manage their condition, and in doing so guarantee the safety of passengers and crew in the air.

A blanket ban on flying aircraft which is based purely on a person's need for insulin to treat diabetes may offer an uncomplicated solution to regulatory bodies. However, such legislation discriminates against pilots with diabetes who are capable of controlling their condition rigorously, and thus maintaining a level of medical fitness equal to that of a person without diabetes.

The safety regulations regarding pilots with diabetes were put in place when diabetes management was far less precise than it is today. At the time of introduction, these now outdated regulations were prudent for the medical technologies of the time.

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However, over the past 20 years, huge advances have been made in the development of new medical technologies, such as home blood sugar (glucose) testing, and the new versatile, more precise insulins. These developments have revolutionized the management of diabetes. But while medical technology has advanced, regulators have slipped further and further behind, and outdated regulations remain in place which unfairly discriminate against the pilot with diabetes.



Stephen Steele is now the first and only airline Captain in the world flying while taking insulin.

Rights of the individual

In 1982, a new Canadian constitution was enacted. The constitution contained a Charter of Rights and Freedoms which made a number of human rights provisions. One of these states: "No person shall be discriminated against on the basis of disability."

The new constitutional framework opened the door to a number of Court and Human Rights Tribunal challenges over restrictive legislation. These included the refusal to certify medically people with certain medical conditions, one of which was diabetes.

In April 1992, the Civil Aviation Medicine Branch of Transport Canada began a review of diabetes legislation. Guidelines were developed by a working group which comprised of physicians, Canadian and US regulators, and representatives from industry and

the Canadian Diabetes Association. The revised guidelines led to a change in Canadian regulations: people with insulin-treated diabetes could now be considered for medical certification based on their individual ability to control their condition. These changes made Canada the world leader in the medical certification of people with diabetes for pilot licences.

Flying on insulin

A pilot with diabetes who can demonstrate the ability to recognize low blood glucose levels and control them satisfactorily may be medically certified to fly with certain restrictions:

- ♦ blood glucose levels are maintained at higher-than- >>



A pilot with diabetes who can recognize low blood glucose levels and control them satisfactorily may now fly with certain restrictions.

recreational flying only. It is hoped that these regulators quickly learn from Canada's experience and learn that pilots with diabetes who are prepared to properly manage their condition do not constitute a threat to aviation safety.

optimal values before and during flight in order to minimize the risk of hypoglycaemia – this may impact on long-term health and must be understood by the pilot

- ♦ in-flight blood testing requirements ensure that tight control of blood glucose levels is maintained throughout the flight – between 5.5 and 15.0 mmol/l
- ♦ a supply of readily absorbable and rapid-acting supplemental glucose is carried at all times in flight for the treatment of lower-than-required blood glucose levels.¹

In November 2001, I was able to gain restricted medical certification, and in November 2002, I was able to return to my airline flying career. In Canada, there are now 54 people with insulin-treated diabetes who are medically certified to fly. Five of

these fly for commercial airlines, one is in the Canadian military and the others are recreational pilots. The regulatory authorities in Australia and South Africa have adopted policies which are similar to those implemented in Canada. No commercial licences have yet been issued in the USA. The UK appears to be ready to issue recreational licences to pilots with diabetes.

Some of the world's major aviation regulators are updating their stand on pilots with diabetes.

While it would appear that some of the world's major aviation regulators are updating their stand on pilots with diabetes, all but Canada are still limiting the issue of medical certificates to

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Stephen Steele is an airline pilot and lawyer who lives in Cambridge, Ontario, Canada. He has been involved in aviation for 31 years as a pilot and flight simulator instructor. He has an extensive background in airline flight training development and human factors in aviation. He was diagnosed with diabetes 16 years ago.

References

1. Canadian Guidelines for the Assessment of Medical Fitness in Pilots, Flight Engineers and Air Traffic Controllers, with Diabetes Mellitus. <http://www.tc.gc.ca/CivilAviation/Cam/TP13312-2/diabetes/menu.htm>.