IDENTIFICATION OF SOME ISSUES AND QUESTIONS TO BE ANSWERED IN
COMPARING TYPE I AND TYPE II DIABETES

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This chapter will attempt to identify some of the issues and questions arising from the present classification of and comparisons between Type I and Type II diabetes. Because these issues will also be dealt with in other chapters of this book in depth, it was not considered necessary to include herein a complete list of references.

It was felt that it was timely to review the present classification. About five years ago the National Diabetes Data Group proposed a new system for classification and diagnosis of diabetes mellitus and other categories of glucose intolerance. This nomenclature has also been accepted by the World Health Organization's Expert Committee on Diabetes. Many questions and some controversies arose from this endeavour. At that time, the hope was expressed that this plan would stimulate further research so that some of the queries could be clarified in the ensuing years. The most pertinent conclusion of the classification system was that there is a clear distinction between Type I and Type II diabetes. A third subclass deals with diabetes caused by other conditions, while gestational diabetes is also identified as a separate entity. The nomenclature also identifies impaired glucose tolerance, previous abnormality of glucose tolerance and potential abnormality of glucose tolerance. In addition, criteria for diagnosis of diabetes have been standardized.

The following definitions are summarized from some of the conclusions of the National Diabetes Data Group entitled: "Classification and Diagnosis of Diabetes Mellitus and Other Categories of Glucose Intolerance". It is proposed that this classification be used as a uniform framework in which to conduct clinical and epidemiological research so that more meaningful and
comparative data will be obtained on the scope and impact of the various forms of diabetes and other classes of glucose intolerance.

1. Insulin-dependent, ketosis-prone type of diabetes, which is associated with increased or decreased frequency of certain histocompatibility antigens (HLA) on chromosome 6 and with islet cell antibodies, be considered A DISTINCT SUBCLASS OF DIABETES (IDDM).

2. The noninsulin-dependent, nonketosis-prone types of diabetes, which are not secondary to other diseases be considered a SECOND DISTINCT SUBCLASS OF DIABETES (NIDDM). This subclass has been divided according to whether or not obesity is present and is further characterized by the type of treatment the patients receive or by other characteristics. It is believed that further heterogeneity within NIDDM and IDDM will be demonstrated.

3. Types of diabetes CAUSED BY OTHER CONDITIONS be considered A THIRD SUBCLASS OF DIABETES MELLITUS.

4. GESTATIONAL DIABETES be restricted to women in whom glucose intolerance develops or is discovered during pregnancy.

5. Individuals with plasma glucose levels between those considered normal and those considered diabetic be termed to have IMPAIRED GLUCOSE TOLERANCE.

6. Individuals with normal glucose tolerance who have experienced transient hyperglycemia be classed as PREVIOUS ABNORMALITY OF GLUCOSE TOLERANCE.

The suggestion that there are at least two subclasses of diabetes is not a new one. It has been put forward that dietary and exercise prescriptions contained in the book "Chikits Sthana", written by the Indian physician Sushruta as early as 600 B.C. might have referred to Type I and Type II diabetics, one lean and emaciated, the other obese. In textbooks of diabetes one will find detailed descriptions of these types of diabetes and very often the focus is on the difference between them. We felt that insufficient emphasis has been placed on comparing the two diseases with respect to genetics, pathophysiology, metabolic abnormalities and complications. As it is necessary to review both similarities and dissimilarities, ideally each item under discussion should go through the process of comparing as well as contrasting. The impact of discovery of insulin on the well-being of Type I diabetes is well documented. However, throughout the world most diabetics can be classified as Type II. Moreover, it is only in a very small part of the world that Type I diabetes has such a prevalence that it affects up to 10% of the total diabetic population. Therefore, the importance of insulin discovery has not had such a dramatic impact.