type eleven) (American Diabetes Association, 2001). The characteristics of type 1 DM and type 2 DM are outlined in Table 28-2.

TABLE 28-2
Characteristics of Type 1 and Type 2 Diabetes Mellitus

Characteristic	Type 1	Type 2
Age at onset	<20 years	Increasingly occurring in younger children
Type of onset	Abrupt	Gradual
Sex ratio	Affects males slightly more than females	Females outnumber males
Percentage of diabetic population	5% to 8%	85% to 90%
Heredity:		
Family history	Sometimes	Frequently
Human leukocyte antigen	Associations	No association
Twin concordance	25% to 50%	90% to 100%
Ethnic distribution	Primarily whites	Increased incidence in American Indians, Hispanics, African Americans
Presenting symptoms	Three Ps common—polyuria, polydipsia, polyphagia	May be related to long-term complications
Nutritional status	Underweight	Overweight
Insulin (natural):		
Pancreatic content	Usually none	>50% normal
Serum insulin	Low to absent	High or low
Primary resistance	Minimum	Marked
Islet cell antibodies	80% to 85%	<5%
Therapy:		
Insulin	Always	20% to 30% of patients
Oral agents	Ineffective	Often effective
Diet only	Ineffective	Often effective
Chronic complications	>80%	Variable
Ketoacidosis	Common	Infrequent

In the age group younger than 10 years old, most diabetes cases are type 1 and occur most frequently in non-Hispanic whites. In the age group 10 to 19 years old, type 1 diabetes is more prominent in non-Hispanic whites followed by African Americans and then Hispanics; the lowest prevalence is among American Indians.

Type 1 diabetes is characterized by destruction of the pancreatic beta cells, which produce insulin; this usually leads to absolute insulin deficiency. Type 1 diabetes has two forms. Immune-mediated DM results from an autoimmune destruction of the beta cells; it typically starts in children or young adults who are slim, but