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**DIABETES  
 CANADA**



## Appendix 2

### Etiologic Classification of Diabetes Mellitus

<b>Type 1 diabetes (including LADA form)</b> (Beta-cell destruction, usually leading to absolute insulin deficiency) A. Immune mediated    B. Idiopathic	
<b>Type 2 diabetes</b> (May range from predominantly insulin resistance with relative insulin deficiency to a predominantly secretory defect with insulin resistance)	
<b>Gestational diabetes mellitus</b>	
<b>Other specific types</b>	
<b>Genetic defects of beta-cell function</b> <ul style="list-style-type: none"> <li>• Chromosome 20, HNF-4alpha (MODY1)</li> <li>• Chromosome 7, glucokinase (MODY2)</li> <li>• Chromosome 12, HNF-1alpha (MODY3)</li> <li>• Chromosome 13, IPF-1 (MODY4)</li> <li>• Chromosome 17, HNF-1beta (MODY5)</li> <li>• Chromosome 2, NeuroD1 (MODY6)</li> <li>• Chromosome 2, KLF11 (MODY7)</li> <li>• Chromosome 9, CEL (MODY8)</li> <li>• Chromosome 7, PAX4 (MODY9)</li> <li>• Chromosome 11, IINS (MODY10)</li> <li>• Chromosome 8, BLK (MODY11)</li> <li>• Chromosome 11, ABCC8</li> <li>• Chromosome 11, KCNJ11</li> <li>• Mitochondrial DNA</li> <li>• Permanent neonatal diabetes</li> <li>• Transient neonatal diabetes</li> <li>• Others</li> </ul> <b>Genetic defects in insulin action</b> <ul style="list-style-type: none"> <li>• Leprechaunism</li> <li>• Lipoatrophic diabetes</li> <li>• Rabson-Mendenhall syndrome</li> <li>• Type A insulin resistance</li> <li>• Others</li> </ul> <b>Diseases of the exocrine pancreas</b> <ul style="list-style-type: none"> <li>• Cystic fibrosis</li> <li>• Fibrocalculus pancreaticopathy</li> <li>• Hemochromatosis</li> <li>• Neoplasia</li> <li>• Pancreatitis</li> <li>• Trauma/pancreatectomy</li> <li>• Others</li> </ul> <b>Endocrinopathies</b> <ul style="list-style-type: none"> <li>• Acromegaly</li> <li>• Aldosteronoma</li> <li>• Cushing's syndrome</li> <li>• Glucagonoma</li> <li>• Hyperthyroidism</li> <li>• Pheochromocytoma</li> <li>• Somatostatinoma</li> <li>• Others</li> </ul>	<b>Drug or chemical induced</b> <ul style="list-style-type: none"> <li>• Alpha-interferon</li> <li>• Atypical antipsychotics*</li> <li>• Beta-adrenergic agonists</li> <li>• Calcineurin inhibitors*</li> <li>• Diazoxide</li> <li>• Dilantin</li> <li>• Fluoroquinolones</li> <li>• Glucocorticoids*</li> <li>• Highly active antiretroviral therapy (HAART)*</li> <li>• HMG CoA reductase inhibitors (statins)</li> <li>• Nicotinic acid</li> <li>• Pentamidine</li> <li>• Thiazides</li> <li>• Thyroid hormone</li> <li>• Vacor (rodenticide)</li> <li>• Others</li> </ul> <b>Infections</b> <ul style="list-style-type: none"> <li>• Congenital rubella</li> <li>• Cytomegalovirus</li> <li>• Others</li> </ul> <b>Uncommon forms of immune-mediated diabetes</b> <ul style="list-style-type: none"> <li>• Anti-insulin receptor antibodies</li> <li>• "Stiff-man" syndrome</li> <li>• Others</li> </ul> <b>Other genetic syndromes sometimes associated with diabetes</b> <ul style="list-style-type: none"> <li>• Down syndrome</li> <li>• Friedreich's ataxia</li> <li>• Huntington chorea</li> <li>• Klinefelter syndrome</li> <li>• Laurence-Moon-Bardet-Biedl syndrome</li> <li>• Myotonic dystrophy</li> <li>• Porphyria</li> <li>• Prader-Willi syndrome</li> <li>• Turner syndrome</li> <li>• Wolfran syndrome</li> <li>• Others</li> </ul>
<small>Adapted and updated from: American Diabetes Association. Diagnosis and classification of diabetes mellitus. Diabetes Care 2012;35(suppl 1):S64-71.</small>	
<small>LADA; latent autoimmune diabetes of adults</small>	
<small>* Medications more commonly associated with hyperglycemia.</small>	