

Diabetes: It's not all type 1 or type 2

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With reference to:

Katherine S. O'Neal et al. Recognizing and Appropriately Treating Latent Autoimmune Diabetes in Adults. *Diabetes Spectr.* 2016 Nov; 29(4): 249–252.

This quick 1-pager highlights some key points that can help with making the right diagnosis. The truth is many folks may have been misdiagnosed for years and using medications that may actually be harming them vice helping them.

LADA, or Latent Autoimmune Diabetes in Adults, is considered a subgroup of type 1 diabetes and is often misdiagnosed because of a lack of both awareness and standardized criteria and then treated as if the patient has type 2. Patients may present clinically with characteristics of both type 1 and type 2 disease.

Key Clinical Features:

- 1) Various lab tests that point to a certain type (see table below)
- 2) Patients usually have a lower BMI (some call it “skinny” diabetes)
- 3) Usually presents later in life (30s and 40s)
- 4) Insulin resistance or deficiency is often seen
- 5) Beta cell function gradually deteriorates leading to the need for insulin and better diet control
- 6) A patient often presents to the physician as a slowly progressing type 1 diabetic and it can take years
- 7) Often required insulin treatment within 5-years of diagnosis (oral medications may work initially)

Characteristics of Type 1 Diabetes, Type 2 Diabetes, and LADA

	Type 1 Diabetes	Type 2 Diabetes	LADA
Age (years)	<35	>35	≥30
C-peptide	Very low	Normal to high	Low
Islet Cell Auto-Antibodies	Often positive	Negative	Can be positive
GAD65	Often positive	Negative	Can be positive
IA-2 (tyrosine islet antigen)	Often positive	Negative	Can be positive
Insulin Autoantibodies	Often positive	Negative	Can be positive
Circulating Insulin	Rapidly deficient	Excessive and resistant	Gradually deficient
Time to requiring insulin	At onset	Can be many years	Within 6 months (variable)