



# How To Interpret the A1C Test

An A1C of...	Equals an average plasma glucose (mg/dl) of...	Clinical Correlations
12% 11% 10%	345 310 275	Persons with uncontrolled diabetes face heart disease, kidney failure, blindness, neuropathy, limb amputation, sexual dysfunction, and premature death.  Studies have shown even high levels of A1C can be brought down to 7% or below with intensive therapy. <sup>1</sup>
9%	240	Reducing A1C by just 1 point (e.g. from 9% to 8%) reduces risk of microvascular complications by 25% in type one diabetes (DCCT). <sup>1</sup>
8%	205	Reducing A1C by just 1 point (e.g. from 8% to 7%) reduces risk of microvascular complications by 35% in type two diabetes (UKPDS). <sup>1</sup>
7%	170	Keeping A1C under 7% significantly reduces risk of retinopathy and nephropathy.
6%	135	Lower A1C values are better for the health of patients with diabetes.

Causes of unexpectedly low A1C	Implications
Frequent hypoglycemia with rebound hyperglycemia	Taking a careful history and reviewing the patient's home monitoring log can help resolve discrepancies between measured A1C, glucose levels, and clinical symptoms.
Hemolytic anemia, blood loss	Test if indicated.
Pregnancy	Follow specific guidelines for managing diabetes in pregnancy.
Certain hemoglobinopathies	Trending may be more valuable than absolute values. Monitor symptoms and glucose testing records closely.

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<sup>1</sup> Source: Diabetes Care 27:S15-S35, 2004.