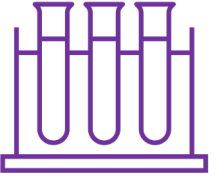




# Interpretation of Hemoglobin A1c



Does the A1c correlate with blood glucose levels?<sup>1</sup>

## Scenarios that can make a Hemoglobin A1c unreliable

Scenario	Effect on A1c	Rationale
↓ RBC turnover	↑	Old RBCs remain in circulation
↑ RBC turnover	↓	Young RBCs are removed from circulation
Chronic Kidney Disease	↑ or ↓	↑ as urea interferes with the assay ↓ as HD can cause ↑ RBC destruction
Received blood transfusions	↑ or ↓	Donor Hemoglobin A1c is unknown

A serum fructosamine level correlates with serum albumin, so it cannot be interpreted in hypoalbuminemic states<sup>2</sup>

1. [https://professional.diabetes.org/diapro/glucose\\_calc](https://professional.diabetes.org/diapro/glucose_calc)

2. Oimomi M, Masuta S, Sakai M, Ohara T, Hata F, Baba S. Influence of serum protein levels on serum fructosamine levels. Jpn J Med. 1989 May-Jun;28(3):312-5