

# Professionals - About A1C

## How Does A1C Relate to Glucose Control?

A strong relationship exists between A1C and plasma glucose – an increase in A1C equates to an increase in plasma glucose.<sup>[1, 2]</sup> Although a single plasma glucose measurement or a single daily glucose profile may not reliably predict A1C, plasma glucose levels measured over time can provide a reasonably accurate estimation of A1C, which allows patients and their HCPs to set day-to-day glucose targets to achieve long-term A1C goals.

The table below shows the range of blood glucose that corresponds to an A1C value. The relationship between average blood glucose and A1C was derived through a combination of Continuous Glucose Monitoring (CGM) and 7- and 8- point self monitoring of capillary blood glucose. Corresponding blood glucose values and ranges below are updated as prior relationship between average blood glucose and A1C did not use CGM and relied on infrequent self blood glucose monitoring.<sup>[2]</sup>

A1C Value (%)	Blood Sugar Level (mg/dl)	Blood Sugar Level (mmol/l)
5	97 (76-120)	5.4 (4.2-6.7)
6	126 (100-152)	7.0 (5.5-8.5)
7	154 (123-185)	8.6 (6.8-10.3)
8	183 (147-217)	10.2 (8.1-12.1)
9	212 (170-249)	11.8 (9.4-13.9)
10	240 (193-282)	13.4 (10.7-15.7)
11	269 (217 – 314)	14.9 (12.0 – 17.5)
12	298 (240-347)	16.5 (13.3 – 19.3)

Data in parentheses are 95% Confidence Intervals.

To convert (mmol/mol) A1C units (IFCC traceable) to (%A1C (DCCT traceable) use the following equation(%A1C=(0.0915\*A1C mmol/mol) + 2.15.

### Handout for your patients on Corresponding Blood Glucose Values

[English](#) (pdf)

[Español](#) (pdf)

### References