

The A1C Chart: How does A1C Relate to Blood Sugars?

A1C is the traditional way that clinicians measure diabetes management. Your A1C is like a summary of your blood glucose over the past few months.

A1C is a three-month average of the percentage of your red blood cells that are coated with sugar. Most people who have diabetes get their A1C checked once or twice a year. The American Diabetes Association recommends that adults aim for an A1C less than 7.0%, while the American Association of Clinical Endocrinologists recommends a target below 6.5%. Discuss your A1C target with your healthcare professional.

There is a strong relationship between your A1C and your average blood glucose (BG) levels.

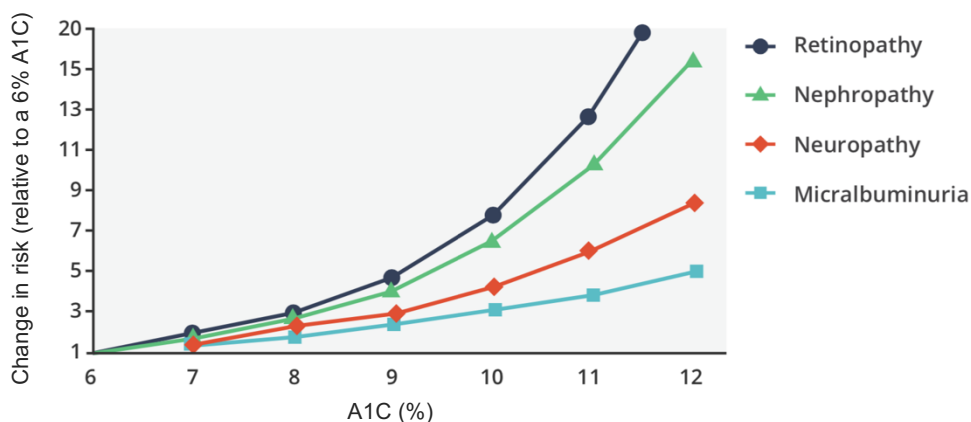
As shown in the chart, A1C gives you an average BG estimate, and average BG can help you estimate A1C.

Ask your healthcare professional about your target BG range, and aim to spend as much of your day as you can in that range. This is called time in range.

A1C (%)	Blood glucose (mg/dl)	Blood glucose (mmol/L)
5	97	5.4
5.5	111	6.2
6	126	7
6.5	140	7.8
7	154	8.6
7.5	169	8.4
8	183	10.2
8.5	197	10.9
9	212	11.8
9.5	226	12.6
10	240	13.4
10.5	255	14.1
11	269	14.9
11.5	283	15.7
12	298	16.5

To learn about measuring BG, lowering A1C, and improving time in range, visit diaTribe.org.

A1C and Risk of Blood Vessel Complications



Many diabetes complications – like eye damage (retinopathy), nerve damage (neuropathy), kidney damage (nephropathy and microalbuminuria), and heart disease – are caused by high blood sugar levels over time.

Healthcare professional use A1C as a measure of your risk for diabetes complications.

For every 1% decrease in A1C, there is 45% less risk of a diabetes complication.

DCCT, Diabetes Control and Complications Trial
 1. Adapted from Skyler JS. *Endocrinol Metab Clin North Am.* 1996;25:243-254.
 2. DCCT. *N Engl J Med.* 1993;329:977-986
 3. DCCT. *Diabetes.* 1995;44:968-983