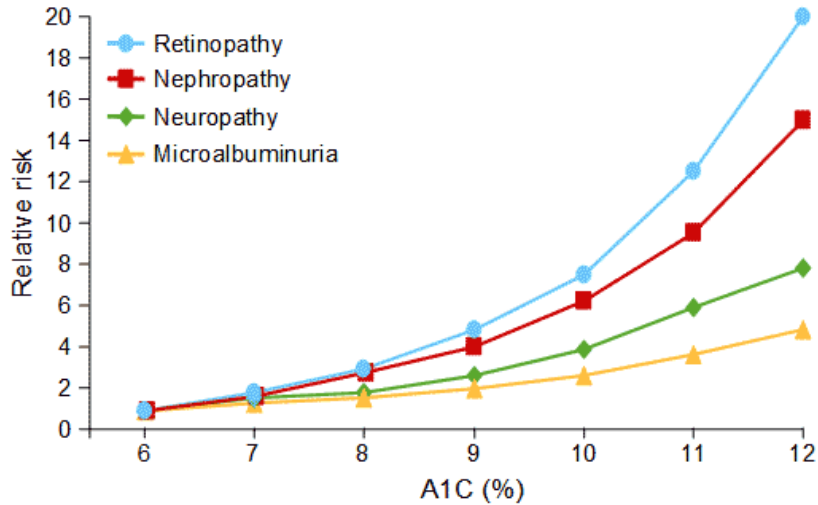


Professionals - About A1C

A1C and Complications

The DCCT was the pivotal trial that provided the link between A1C levels and the risk of diabetes-associated complications. The results of the Diabetes Control and Complications Trial (DCCT) shown below are considered definitive for patients with type 1 diabetes. Relative risk increased with A1C for retinopathy, nephropathy, and microalbuminuria, and the risk of retinopathy and nephropathy accelerated at the highest levels of A1C. In this study, improved glycemic control following intensive diabetes therapy delayed the onset and slowed the progression of diabetic retinopathy, nephropathy and neuropathy in patients with type 1 diabetes. [1]

DCCT A1C levels and the risk of complications in type 1 diabetes



Patients with type 1 diabetes (n=1,441)
Adapted from DCCT. Diabetes 1995;44:968-43.

The United Kingdom Prospective Diabetes Study (UKPDS) was a large-scale trial that investigated the effect of intensive blood glucose control versus conventional treatment in patients with type 2 diabetes, with a median follow-up of 10 years. This observational analysis of data from the UKPDS demonstrated a direct relationship between the risk of diabetic complications and glycemia over time. Each 1% absolute reduction in mean A1C levels was associated with a 37% decrease in the risk of microvascular complications and a 21% reduction in the risk of any diabetes-related complication or death.

Therefore, any improvement in A1C levels is likely to reduce the risk of diabetic complications. [2]

Lowering A1C levels reduces the risk of diabetes complications in people with type 2 diabetes

UKPDS: 21% risk reduction per 1% absolute decrease in A1C levels (p<0.0001)

