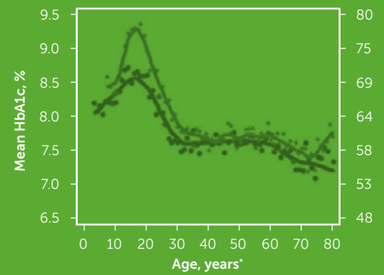
YOUNG ADULTS WITH T1D HAVE THE WORST GLYCAEMIC CONTROL OF ALL AGES[2]

HbA1c level by age in a US registry study of 22,697 participants with T1D[2]



In a registry study of 56,250 patients with T1D in Germany:[3]

- median HbA1c was 8.1% vs 7.5% among 18–25-year-olds vs >49-year-olds, respectively
- HbA1c values >7.5% were reported in nearly two-thirds of 18–25-year-olds vs less than half of those >49 years

HbA1c

Across all age groups, it has been shown that **HbA1c levels are lower in those who use CGM (continuous glucose monitoring)** vs non-users[2]

CGM CAN HELP YOUNGER PATIENTS TO GAIN CONTROL OVER THEIR T1D

IMPROVED GLYCAEMIC CONTROL

Adolescents and young adults (<25 years old) have the worst glycaemic control of all ages;[2] use of real-time CGM was shown to improve HbA1c in this group after 26 weeks vs BGM use. Significant improvements in glycaemic control were also observed after 13 weeks.[1]

GREATER TIR WITH LESS TIME IN HYPERGLYCAEMIA

CGM use resulted in greater TIR in young adults vs BGM use, with 1.4 hours fewer spent per day >180 mg/dL (>10.0 mmol/L).[1]

ADVANCED TECHNOLOGY CAN BOOST CGM USE AND COMPLIANCE

Improved technology can help reduce the treatment burden and improve adherence to CGM in this young population[1,5]

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1 Laffel LM, *et al.* JAMA. 2020;323(23):2388-2396. 2 Foster NC, *et al.* Diabetes Technol Ther. 2019;21(2):66-72. 3 van Mark G, *et al.* Ther Adv Endocrinol Metab. 2019 ;10:2042018819830867. 4 Laffel LM, *et al.* JAMA. 2020;323(23):2388-2396; supplement 2. 5 Juvenile Diabetes Research Foundation Continuous Glucose Monitoring Study Group, *et al.* N Engl J Med. 2008;359(14):1464-1476. 6 Borus JS, *et al.* Curr Opin Pediatr. 2010;22(4):405-11.

DEXCOM CONTINUOUS GLUCOSE MONITORING CAN HELP YOUNG PATIENTS ACHIEVE IMPROVED GLYCAEMIC CONTROL

Results from the **CITY study** – a six-month trial in **adolescents and young adults** (<25 years of age) with type 1 diabetes (T1D)[1]

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THE CITY TRIAL ASSESSED THE EFFECTS OF CGM VS BLOOD GLUCOSE MONITORING (BGM) ON GLYCAEMIC CONTROL IN ADOLESCENTS AND YOUNG ADULTS WITH T1D[1]

PRIMARY OBJECTIVE

To determine the effects of CGM vs BGM on blood glucose control in adolescents and young adults (14–24 years)*[1]

153 participants were randomly assigned 1:1 to real-time CGM (Dexcom G5) or standard BGM[1]

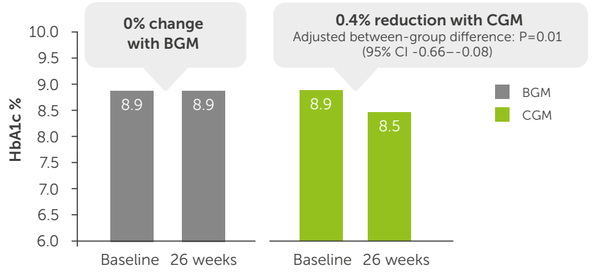
50% were female[1]
Mean age: 17 years[1]

Mean duration of disease:
9 years[1]

*Primary endpoint was the change in HbA1c from baseline to 26 weeks. CGM-measured outcomes calculated at follow-up using data pooled from up to 7 days before or after the 13-week visit and 14 days prior to the 26-week visit.

WITH CGM, ADOLESCENTS AND YOUNG ADULTS EXPERIENCED A DECREASE IN HBA1C AFTER 26 WEEKS[1]

MEAN HBA1C LEVELS[1]



% patients achieving at Week 26	CGM	BGM	Adjusted between-group difference (95% CI)
≥0.5% reduction in HbA1C	44%	21%	23% (7–37) P=0.005
≥1% reduction in HbA1C	25%	6%	19% (8–31) P=0.003

PATIENTS USING CGM ALSO SPENT LESS TIME IN HYPERGLYCAEMIA VS PATIENTS USING BGM[1]

With CGM vs BGM:

1.4 hours fewer spent each day >180 mg/dL (>10.0 mmol/L)
(P=0.007)[4]

1.2 hours fewer spent each day >300 mg/dL (>16.7 mmol/L)
(P<0.001)[4]

CGM USERS ACHIEVED MORE TIME IN RANGE* (TIR) VS BGM USERS[1]

At follow-up, CGM users spent:

- **6% (1.4 hours[4]) more TIR vs baseline**[1]
- **6.9% (1.7 hours[4]) more TIR vs BGM** (95% CI=3.1–10.7; P<0.001)[1]
- **Less time in hypoglycaemia vs BGM**
  Blood glucose <70 mg/dL (<3.9 mmol/L): 2.2% vs 3.2%, respectively[1]
  Blood glucose <54 mg/dL (<3.0 mmol/L): 0.7% vs 1.3%, respectively[1]

13 WEEKS **Significant improvement** in glycaemic control was observed at 13 weeks[1]

ADVANCED TECHNOLOGY LED TO IMPROVED CGM ADHERENCE AMONG ADOLESCENTS AND YOUNG ADULTS IN CITY VS PREVIOUS TRIALS[1,5]

Compliance and motivation are challenges in this age group;[5,6] in a 2008 study assessing CGM use, only 30% of younger participants with T1D regularly used their device.[5] At week 26 of the CITY study:[1]

Patients using CGM reported significantly **higher glucose monitoring satisfaction** vs BGM†[1]

68% used CGM for a mean of ≥5 days/week[1]

*TIR = 70-180 mg/dL (3.9-10.0 mmol/L).
†Assessed using the Glucose Monitoring Satisfaction Survey.