



Blood Glucose Improves Among People ‘At Risk’ Using One Drop | Premium or Plus on iPhone and Apple Watch

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Background

The One Drop | Mobile diabetes app lets people track self-care and health data, get data-driven insights, set goals, monitor progress, receive and give support, view tips/recipes, etc. With a subscription, a live Certified Diabetes Educator (‘Expert’) sends in-app messages to educate, strategize, and answer questions. The Chrome blood glucose (BG) meter uploads objective BG readings via Bluetooth. Among people with type 2 diabetes (T2D) and lab A1c $\geq 7.5\%$ using the app on iPhone/Watch with an ‘Expert’, but not ‘Chrome,’ there was a -35 mg/dL (estimated [eA1c] -1.2%) 12-week improvement.¹ Here, we tested objective BG changes among people ‘at risk’ using One Drop on iPhone/Watch, an ‘Expert’ and ‘Chrome.’

Method

We queried One Drop’s database of nearly 700K users for people with a subscription using the One Drop | Mobile app on their Apple Watch who had been in coaching for 12 weeks or more and who had a blood glucose average of 169 or greater (eA1c $\geq 7.5\%$) in week 1. Multiple imputation and mixed models assessed 1st- to 12th-week change in average BG, percentage of high BG readings and percent in-range BG readings by diabetes type (T1D vs. T2D).

Results

The sample (N=34) was:

- 77% male
- 62% T2D, 38% T1D
- 8.5 ± 7.6 years since being diagnosed

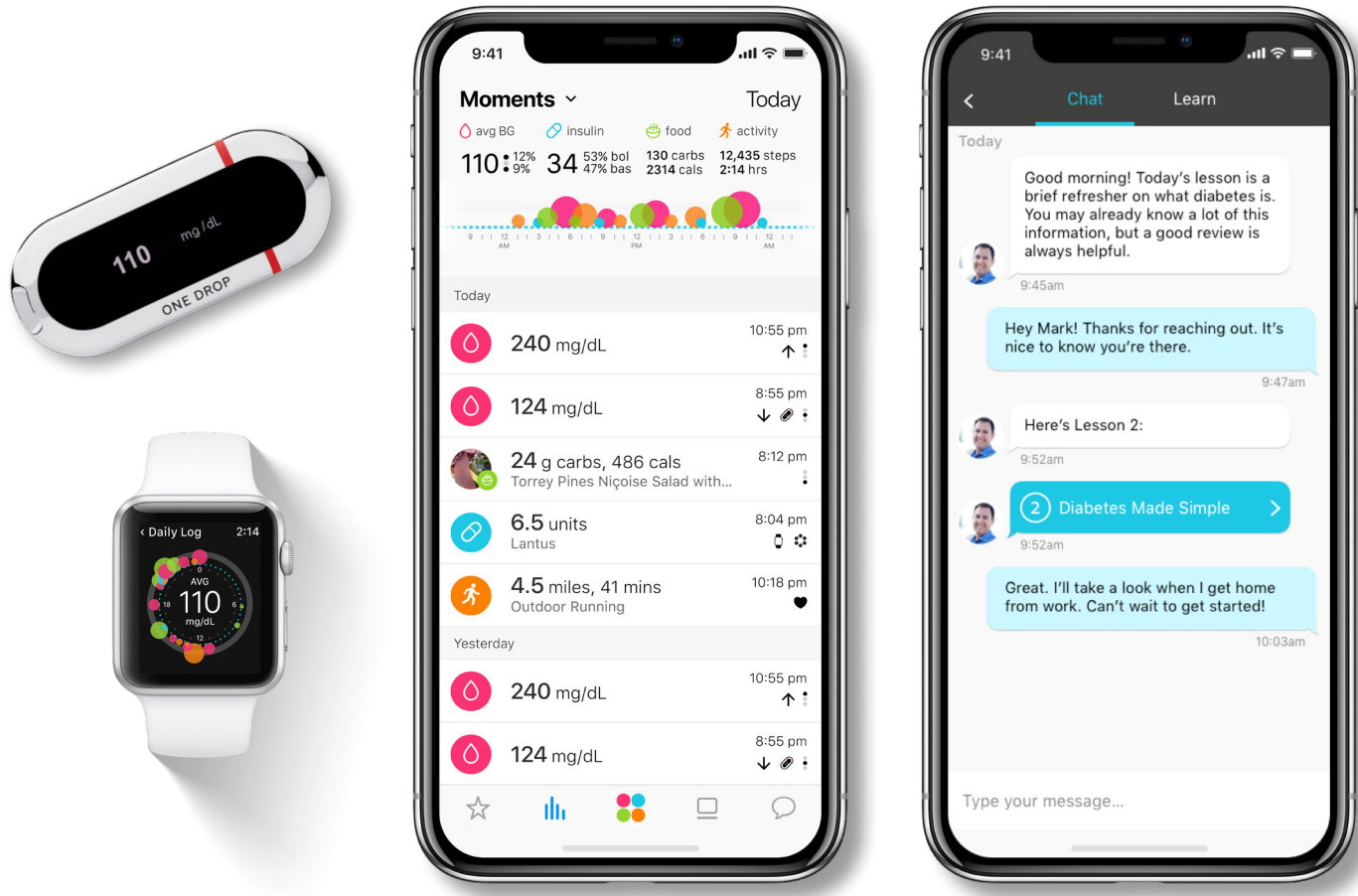
The 12th-week average BG was -48 mg/dL lower (eA1c -1.6%) than the 1st week (227 vs. 179 mg/dL; $p < .01$).
The percentage of high BG readings was -26% lower than the 1st week (66% vs. 40%; $p < .01$).

The percentage of in-range BG readings was +25% higher than the 1st week (57% vs. 32%; $p < .05$).

There were no interactions by diabetes type (Fig. 1-3).

Conclusion

Objective blood glucose improved among people with a One Drop subscription using One Drop’s Apple Watch app.
People with a subscription and Apple Watch may have more resources, support, and/or motivation than someone not paying for these services/devices. However, to date, self-reported and objective blood glucose improvements in two separate samples are consistent.



From left to right: One Drop | Chrome meter, One Drop | Mobile app on Apple Watch and iPhone.

Figure 1. Average BG improved for both diabetes types.

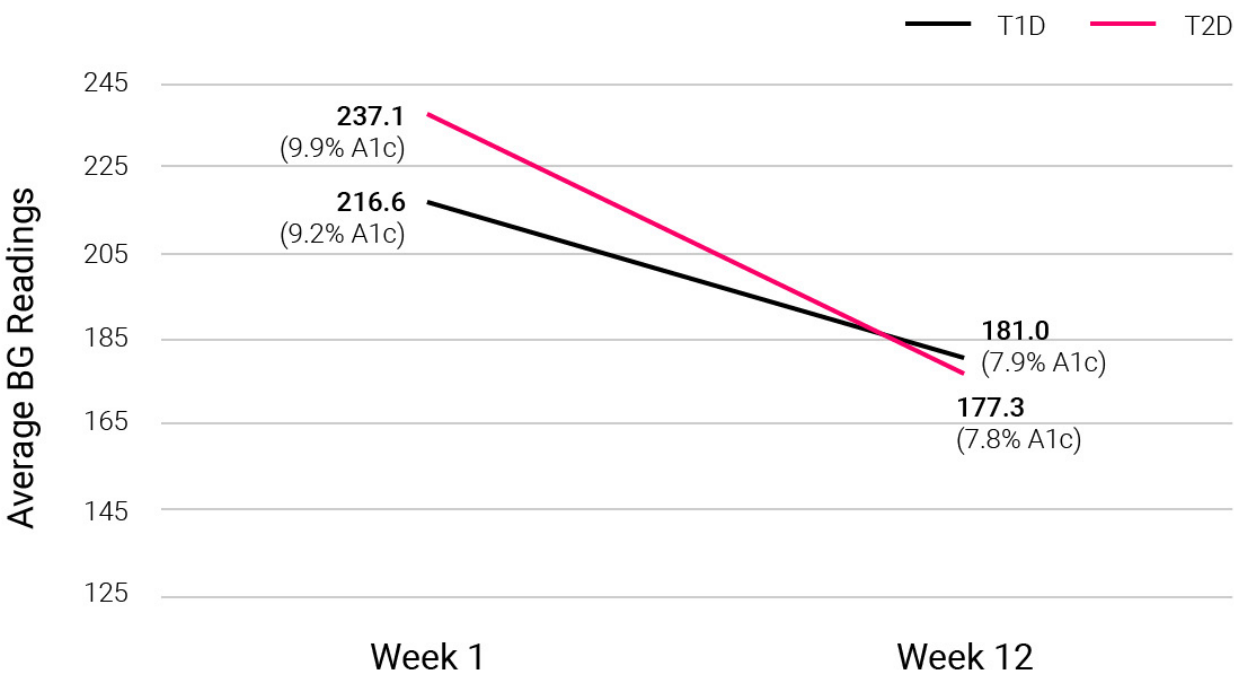


Figure 2. There were fewer high BG readings for both diabetes types.

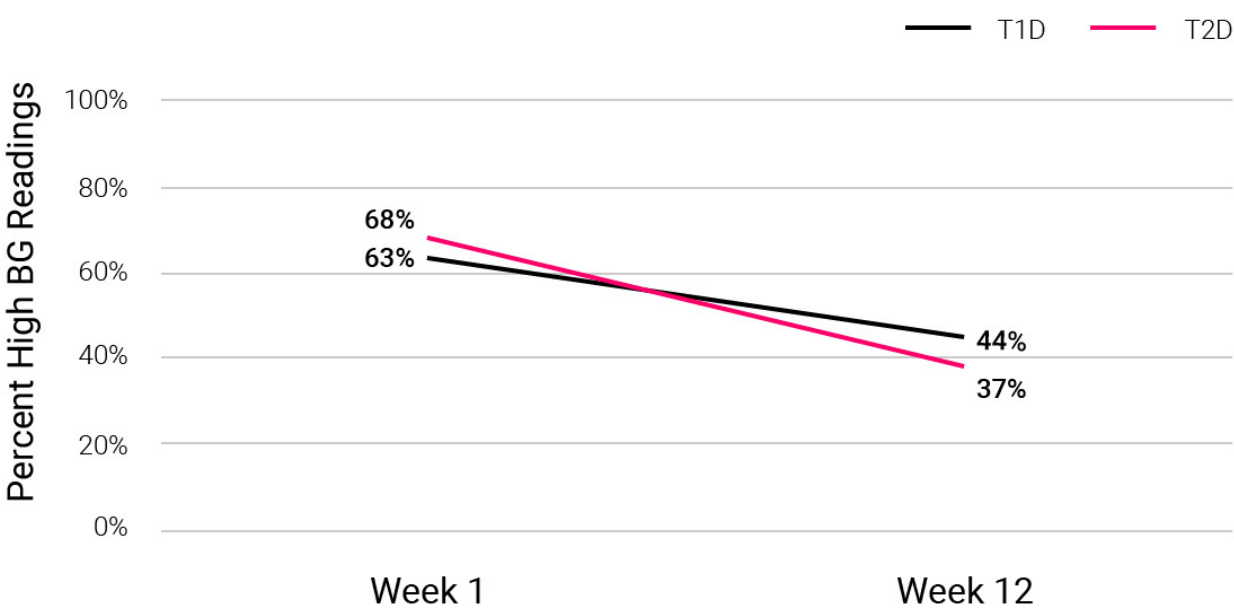
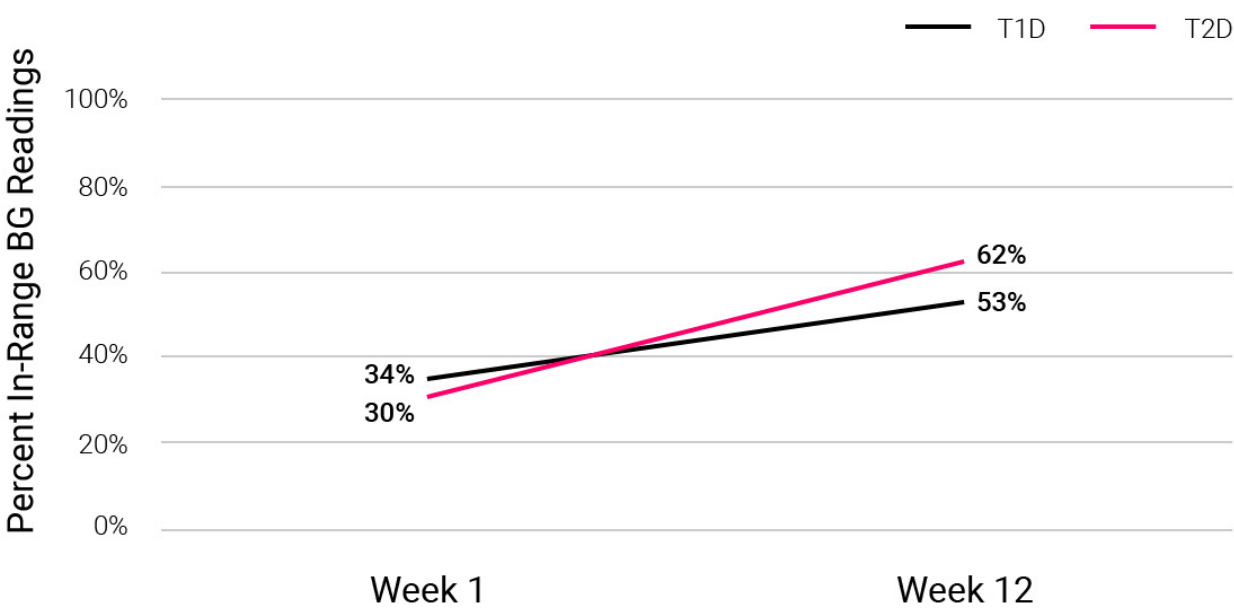


Figure 3. In-range BG readings improved for both diabetes types.



1. Osborn CY. The One Drop diabetes iOS and WatchOS app with in-app coaching from Certified Diabetes Educators improves blood glucose, carbohydrate intake, and physical activity. Stanford MedX. 2017; Palo Alto, CA.