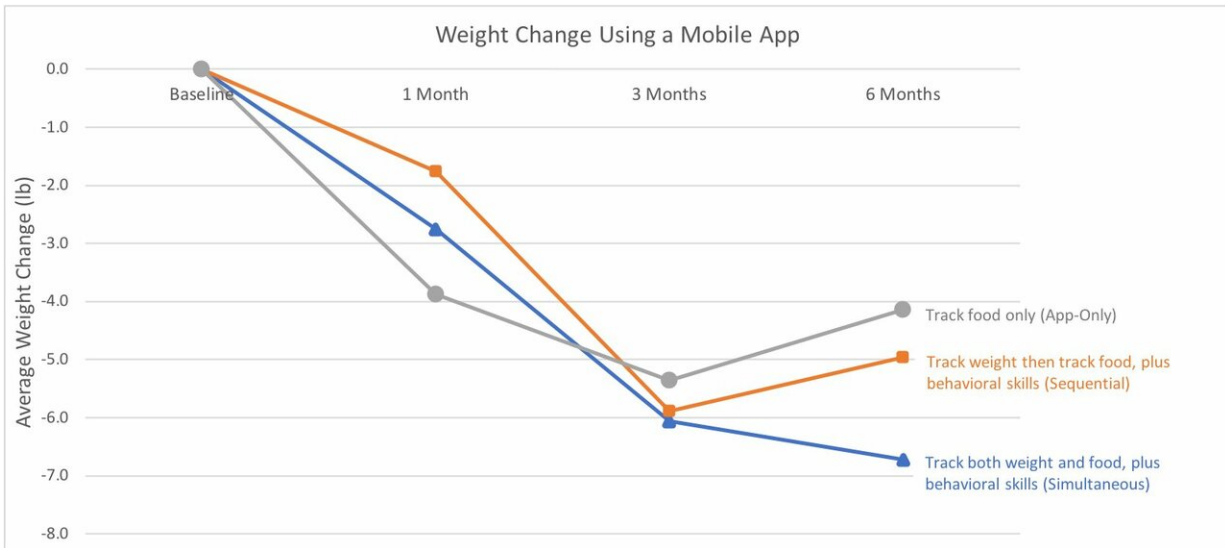


# Tracking food leads to losing pounds

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People who tracked weight and food using a free app lost pounds in a new Duke study. Credit: Duke University

Without following a particular diet, overweight people who tracked daily food consumption using a free smartphone app lost a significant amount of weight in a new Duke University study.

The results were achieved using automated, free tools, rather than expensive in-person interventions, suggesting a possible low-cost route to effective weight loss.

"Free and low-cost weight loss apps have changed the ways that

Americans manage their weight," said Gary Bennett, a Duke psychology professor and co-author of the paper. "However, we knew little about whether these tools worked very well on their own. We've shown that commercial smartphone apps can be a helpful way to get started with weight loss."

The new paper appears online in the open-access journal *JMIR mHealth and uHealth*.

The results surprised Michele Lanpher Patel, who conducted the research along with Bennett while completing her doctorate in psychology at Duke. Patel is now a postdoctoral fellow at Stanford University.

"We wanted to study a lower-intensity treatment for weight loss whereby people could join from the comfort of their home," Patel said. "But we were not sure how much weight people would lose with this type of remote treatment. Merging behavioral science principles with technology turned out to be successful.

"Not everyone wants or has time for a high-intensity weight-loss treatment," Patel said. "So it's important to create alternative strategies that can accommodate these people. Digital health approaches have potential to fill this need."

The researchers used a free app where dieters can record their [food intake](#) and weight. They then divided the 105 [study participants](#), who were between 21 and 65 years old, into three groups in a randomized controlled trial.

Participants were not instructed to follow a particular diet, but instead were given broad advice on [healthy eating](#), and were asked to simply monitor what they ate.

The first group tracked what they ate every day for three months. A second group tracked their weight for a month, then began logging food intake as well. That group also received emails with tailored feedback, weekly lessons on nutrition and behavior change, and action plans describing how to implement the weekly lesson.

The third group recorded both their weight and food intake for all three months, using the same app as the first two groups. They also received weekly lessons, action plans and feedback. For instance, weekly nutrition lessons included tips on topics such as reducing sugary foods and portion control.

Three months after the study began, participants in all three groups had lost clinically significant amounts of weight. Those who only tracked what they ate lost about 5 pounds on average. People in the second group lost about 6 pounds on average.

The final group—those who recorded their weight and their food intake for all 12 weeks, and received weekly lessons, action plans and feedback—fared only slightly better at 3 months, losing just over 6 pounds on average.

However, participants in that group kept the weight off longer. At six months, people in the third group had lost nearly 7 pounds on average.

Compliance was key. Successful participants didn't just say they would keep a food log; they actually did it. And in all three groups, those who were most diligent in tracking each day lost the most weight. By contrast, past research has shown that people often start with a goal of recording their [food](#) intake, but fail to continue over time.

Researchers suspect two factors helped participants follow through on their weight-loss goals. First, researchers helped participants set specific

goals, including tailored calorie targets, and losing 5 percent of their initial body weight. Second, the dieters received automatic in-app reminders to log their meals each day.

"We have very strong evidence that consistent tracking—particularly of diet, but also one's weight—is an essential element of successful weight loss," Bennett said. "Consumers should look for apps that make it easy for them to track on a consistent basis."

The study made use of a free, commercially available app called MyFitnessPal. However, similar results presumably could be achieved using another diet tracker, the researchers said.

The key is compliance. In all three groups, those who were most diligent in tracking—those who stepped on the scale or recorded what they ate on more days—lost the most [weight](#).

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**More information:** Michele L Patel et al, Comparing Self-Monitoring Strategies for Weight Loss in a Smartphone App: Randomized Controlled Trial, *JMIR mHealth and uHealth* (2019). [DOI: 10.2196/12209](#)

Provided by Duke University

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