



## Smartphone App to Fight Obesity



Adults who regularly engage in voluntary or prescribed physical activity may still be at risk for obesity if they spend most of their waking hours sitting or reclining. The new “B-Mobile” smartphone app was designed to monitor sedentary behaviours and prompt users to move for short breaks when they have spent too much time sitting still. In a report published in PLOS ONE, researchers at Miriam Hospital in Providence, Rhode Island tested the efficacy of their intervention in a study of middle-aged women who were overweight.

### Stillness and Obesity

Obesity rates are rising in many parts of the world, creating a public health epidemic. In many cases, doctors advise their overweight patients to ascribe to a healthier diet and to exercise for a given number of hours per week. Even if they follow such medical advice, a daily workout may not be sufficient to ward off obesity, however. The latest evidence indicates that it is the amount of sedentary time, independent of a person’s physical activity, which increases the risk for cardiovascular disease, obesity and mortality.

On average, American adults spend approximately 60 percent of their days being sedentary: sitting in traffic, sitting in front of a computer at the office, sitting in front of the TV or connected to the internet after work. By being prompted to stand and walk around periodically, researchers hope that overall sedentary time can be reduced. The challenge for many people has been how to incorporate physical activity into busy schedules.

### Motivation To Move

The B-Mobile app was developed by Dale Bond, PhD and Graham Thomas, PhD along with their colleagues in the Department of Psychiatry and Human Behavior at Miriam Hospital’s Weight Control and Diabetes Research Center. The app monitors time spent in still positions, sounding a tone and a motivational message when users languish in a seated or reclined position for too long. After getting up and walking around for a pre-established period of activity, encouraging feedback is provided.

The app was tested on obese middle-aged women, primarily, but obesity is not a prerequisite for its utility. The researchers compared three approaches to determine which was most successful in reducing sedentary time for better health. Although all of the approaches had the desired effect, the authors found that the best results came from taking shorter breaks more frequently.

### App Accessibility

The B-Mobile app is not the first low-intensity intervention to use behavioural strategies to encourage physical

activity among sedentary people. However, compared to other methods, it has the advantage of being automated and can be used in any setting throughout the day, enabled by a device users probably already own. There is no extra equipment to buy, and no face-to-face contact is required with coaches or trainers.

“Almost everyone knows that physical activity is important,” Bond said, “but it’s not widely recognised that someone who runs five miles in the evening but spends the rest of the day sitting at a desk can be putting their health at risk. That smartphone you use so often throughout the day could now actually help to improve your health.”

Source: EurekaAlert

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