

Sleep technology

Smart technology has entered all sectors of our lives, including sleep. From apps to wearable devices and even smart mattresses, technological innovations could help some people improve their sleep duration and quality—and along with it, their energy and even their health.

Smartphone sleep apps. There are now over 500 free and fee-based apps that can help you sleep and track how much and how well you sleep. A survey conducted by the National Sleep Foundation found that 28% of adults use a smartphone sleep app. Some of the apps play calming music or sounds, while others guide you through meditations or deep breathing exercises. Highly rated apps that promote relaxation and therefore sleep include Calm and Headspace. Other apps, such as Rise Science and NapBot, help you track your sleep duration and quality.

Wearable sleep trackers. The Oura and other rings are worn on the finger to monitor sleep and other health parameters. Smart watches or fitness trackers such as the Apple Watch, Fitbit, and Whoop are also capable of tracking both activity and sleep. These wearables range in price from \$25 to \$300 or much more.

Ayo light therapy glasses. Blue light (light at the short end of the visible spectrum) helps reset circadian rhythms, which is why a walk outdoors early in the day is recommended for sleep promotion. Similarly, these glasses, worn for 20 minutes in the morning while brushing your teeth, making your breakfast, or even reading, can help boost your energy during the day and improve your sleep at night. The eyeglasses, which cost \$229, can be used with the Ayo app (\$59 per year), which provides guidance on how to optimize their use.

Because the research on blue light in general is so robust, the device received a SleepTech Award from the National Sleep Foundation.

Sunrise sleep sensor. Another SleepTech Award winner, the Sunrise sleep sensor, is an FDA-approved medical device that is prescribed by a doctor for use at home to detect sleep apnea. The device can be used for three sleep sessions, the results of which are reviewed by a sleep specialist.

Smart mattresses. High-tech mattresses allow you to adjust their firmness, raise your head or feet (using an adjustable base underneath the mattress), or even draw excess heat away from your body (with special materials embedded in the mattress). Brands include Solaire, iSense Hybrid Premier, and Tempur-Pedic's Breeze. Costs range from \$2,500 to \$5,000.

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