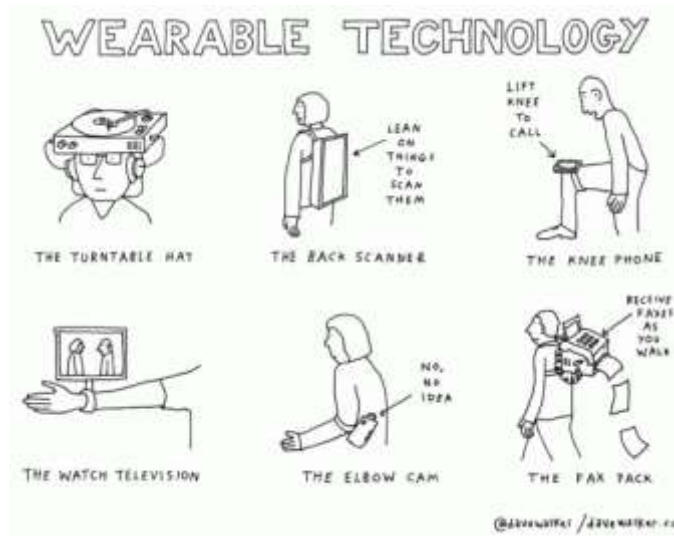


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Benefits of Wearable Technology



The Benefits of Wearable Tech for Seniors Go Beyond Workout Stats

HERE'S HOW YOUR FITNESS TRACKER CAN SUPPORT YOUR WELL-BEING, WHETHER YOU'RE LOOKING TO BOOST HEART HEALTH, REDUCE STRESS, OR MOVE MORE.

By Stav Dimitropoulos / Published Aug 23, 2023 / bicycling.com

Introduction

Wearables, whether worn on the wrist, chest, or finger, help cyclists [train](#) smarter, giving immediate feedback on the intensity and [distance](#) of rides, among other data. For seniors, though, wearables can also serve as potentially life-saving health trackers.

One small [study](#) published in the *International Journal of Environmental Research and Public Health* analyzed data from 13 participants over age 60 who used activity trackers for four months. Researchers found that activity trackers not only increased levels of physical activity, but also offered seniors a feeling of safety, particularly when it comes to falls.

Furthermore, because data like [heart rate](#) is collected more frequently than the same information noted in medical tests, a 2022 [study](#) published in *npj Digital Medicine* and involving 22 participants suggests that doctors can rely on the information from wearables as a diagnostic tool. “I have discovered critical and potentially fatal [arrhythmias](#) on several of my patients based solely on information obtained from wearable technology, including Fitbit and Apple Watch,” says [Robert Pilchik](#), M.D., a cardiologist with Manhattan Cardiology, a New York facility for cardiac testing and preventive treatment. To come to these conclusions, Pilchik looks at the full spectrum of heart rate information provided by wearables, including heart rate and [heart rate variability](#) (more on those below!).

Keeping track of heart rate isn’t the only benefit of wearable tech for [seniors](#). There are a slew of advantages you can gain from these devices when it comes to your [rides](#) and your overall health.

Benefits of Wearable Tech for Senior Heart Health

While on rides, most cyclists check their heart rate as one way to measure their workout intensity, but when it comes to overall cardiovascular health, [heart rate variability](#) or HRV can be a significant piece of information for senior cyclists, along with [resting heart rate](#). “HRV is a potential indicator of general well-being,” says Pilchik. “They may not be professional grade, but wearables are quite reliable.” Simply put, HRV describes changes in the times between each beat of your [heart](#), which, when healthy, remains steady and consistent. HRV declines as we age and varies by gender, according to a large 2020 study published in [The Lancet](#), but its significance isn’t in the number. Instead, it is a change in the pattern that might cause concern.

Similarly, resting heart rate—just as it sounds, that’s your heart rate when at rest and is best measured before you get out of bed in the morning or during the night—can vary widely from person to person, but sudden spikes mean it’s time to see a doctor. It can also inform you when you need to take time to [relax](#). “Wearables can help identify concerning patterns, such as irregular heart rhythms in the case of [cardio health](#), and provide early warnings for symptoms including dizziness, chest pain, heart palpitations, and shortness of breath,” [Naval Parikh](#), M.D., chief of medicine at Broward Health Medical Center North, a level II trauma center in South Florida, and emergency medical technician tells *Bicycling*.”

Wearables have two ways to communicate [HRV](#) information to users. You can find HRV information on Garmin, for example, in two places: Health Snapshot and HRV Status. When WHOOP's HRV metric detects potential problems it may communicate that information through its [Stress Monitor](#). It may suggest you "increase relaxation" by using breathing techniques, like the [cyclic sigh exercise](#) included in its app.

The Oura Ring, which measures HRV at a [98.4 percent reliability](#), and Fitbit, offer users Readiness and [Stress Management Scores](#), respectively—a daily summary of how heart rate variability, sleep, and activity levels influence physiological stress, workout readiness, and overall health.

The key to making use of this heart rate data is paying attention to your patterns and any alerts you get about abnormalities in HRV or resting heart rate. If you get an alert to take an easy day and doing so doesn't help your numbers or you see rapid spikes or drops, it's time to see a professional and to bring these stats with you to an appointment.

No tracker can replace seeing a doctor who can run tests and interpret numbers and symptoms. That's especially important, says Parikh, because slight deviations occur frequently and not all irregularities require immediate concern. "A malfunction or improper usage could lead to unnecessary distress," he adds.

Benefits of Wearable Tech for Fall Detection

Falling can be dangerous for seniors, according to a [2022 global study](#) published in the *Journal of Orthopaedic Surgery and Research*, which found that more than a quarter of adults suffer from falls each year, and some of those falls have serious consequences such as broken bones. "Fall detection features can potentially make the difference between a few minutes on the floor and several hours or even days. That is life-altering," Parikh explains.

Google's Pixel Watch, which comes with built-in [Fitbit](#) integration, not only has the capability to detect falls using motion sensors and artificial intelligence (AI) but can automatically call emergency services if you don't respond or move within a certain timeframe. It's also designed to know the difference between taking a hard fall and performing [vigorous physical activity](#) or even quickly recovering from a small stumble, so you don't have to worry about triggering an accidental emergency call, according to Fitbit. Other wearables with [fall detection](#) include [Apple Watch](#) and some Garmin models.

Whether the watch alerts a loved one or emergency services is an option in the various models, and while some have been known to send alerts when one wasn't necessary, it can offer serious benefits and a sense of security to seniors riding alone in the case of an emergency.

Benefits of Wearable Tech for Detecting Illness

Your blood oxygen level reflects the percentage of oxygen your red blood cells carry from your lungs to the rest of your body. A healthy individual's normal [SpO2](#) (the acronym refers to oxygen saturation in blood) should be 95 percent and higher. Blood oxygen level, along with respiratory rate, has been one of the warning signs that a person has [COVID-19](#), according to a 2022 study published in *Diagnosics*. Wearables measure both of these numbers.

Although older adults typically have lower SpO2 levels than younger adults, when someone has markedly low blood oxygen levels, they can feel significant [shortness of breath](#) and rapid heart rate.

To monitor your numbers, some Fitbit wearers can install a free SpO2 clock face, which leverages data from the red and infrared sensors on the device to measure estimated oxygen levels in the blood while you are sleeping. Likewise, Garmin has an [Oxygen Widget](#) that can calculate the percentage of oxygen in your blood, even when you are several meters above sea level and your SpO2 levels change due to [altitude](#). Whoop, Apple, and Oura also have SpO2 features.

As is the case with heart rate data, senior athletes should not assume that the latest wearable—no matter how high-tech—is a mini-doctor on the wrist. The doctors we spoke with say that when your wearable alerts you to a potential problem, like a drop in SpO2 levels, rather than panic, see a doctor to have them interpret not only the data, but any symptoms you may be experiencing.

Wearables Can Personalize Daily Activity Goals

Some metrics, including skin temperature, are reliably stable, meaning they don't change much from day to day even when you're exercising or at [rest](#). For example, while your body temperature lowers a bit when you sleep, it rises again to "normal" when you begin to move. While most wearables don't shout your temperature on the clock face or app, they will alert you if there is an unexpected variation. According to a 2023 article in [The Lancet](#), when elevated body temperature accompanies elevated resting heart rates, researchers can accurately estimate the prevalence of the flu using data from wearable devices alone. Skin temperature is also one of the key data points that determines the [Daily Readiness Score](#) from Oura and gets factored into your [Health Monitor](#) with Whoop.

"Readiness" refers to how much rest or exercise you should consider every day. A quality wearable suggests when you should move more or take more rest on its app. To that end, studies have demonstrated that wearables help [seniors become more active](#). One way they do that is prompting users to get up after a certain amount of idle time. You may be very comfortable sitting on your couch, but when your watch or ring sends you an alert to move, one of the best things you can do for your health is heed the warning and get some activity. Fortunately, this doesn't mean you need to immediately get on your bike. Instead, Oura, through its [Automatic Activity Detection](#), recognizes movement such as housework or yardwork or a light walk, as does Fitbit.

Famously, the Apple Watch encourages you to get up and move so you hit your stand goal for the day—one of the [three rings](#)—which requires you to move every hour. It also promotes exercise through the other two rings: exercise and active calories.

While many cyclists may think [counting steps](#) is less important than long rides, even cyclists who ride for an hour a day benefit from consistent movement throughout the day, outside of workouts.

Therefore, it is good practice to let your wearable boss you around a bit. Following its advice has been shown to lead to better health and fitness habits. [Multiple studies](#) have demonstrated that long periods of sitting negatively affect our [longevity](#) and [metabolic health](#), and interrupting those inactive periods with [movement](#) is key.

What Wearable Tech Cannot Do for Seniors

It's important to note that, to best utilize these metrics, you'll need to do more than just look at your watch or your ring. With all wearables, it's helpful to dedicate some time to familiarizing yourself with the [app](#) that goes with your device. "The first time you use it, there will be onboarding screens with what to expect and educational information about your Readiness Score, Sleep Score, and Activity Scores," Caroline Kryder, women's health lead and product manager at Oura tells *Bicycling*. Or whatever scores and data your wearable tracks.

All of the apps have videos and information screens that offer multiple ways to understand the [data](#), and engaging with that technology is key to reaping the benefits of the information. If you aren't someone who nerds out on numbers, ask your doctor if there is information they would find helpful to your care so you know what to pay attention to the most. And remember: To gain the benefits of wearables for seniors, you also have to regularly see your doctor and make sure to share any deviations in your metrics with them so you can figure out the best next steps.

See next week, until then....

Make Every Ride Epic,

Darryl