



How to Improve Your Health with Data Â

Budesheim, 79, ended up in the emergency room and then a catheterization lab, where doctors found that one of her arteries was fully blocked. Afterward, Budesheimâ€[™]s daughter bought her an Apple Watch to keep track of her heart health. The watch includes an ECG app and can measure blood oxygen saturation, heart rate, and more.

Of course, the ECG in her watch is not as sophisticated as the ones used in hospitals, but Budesheim says itâ€[™]s still comforting to have in reach. "It wonâ€[™]t detect a heart attack,― she says. "But it will tell me if I go into atrial fibrillation. And if that happens, I know I need to get in touch with the hospital or the doctor very quickly.―

Since Budesheim lives alone, fall detection is another important feature of her Apple Watch. "My watch does a whole lot of things,― she says. "But I am worried more about my heart than anything else.―

This worry puts Budesheim in good company. According to data from Johns Hopkins University, a desire to track their heart health is one of the top two reasons why people use wearable health-tracking devices. (The other is exercise tracking.)

Budesheim tests herself for atrial fibrillation at least once a day, and sometimes more. "lf I get stressed or something just doesn't feel right to me, l'II think, Let me just check my watch,― she says. "l get some reassurance that if something happens, the watch is going to give me a little heads-up.―

Fact Finding



As technology advances and prices decrease, health-tracking apps and wearable devices are becoming increasingly popular. In 2023, 40 percent of American adults reported using health-related apps as part of their daily routines, and 35 percent used at least one wearable device, such as a Fitbit, Apple Watch, WHOOP band, Oura Ring, or digital pedometer, according to Morning Consult.

David Stewart, 65, of Park City, Utah, says apps and wearables are only part of the larger healthtracking trend. As host of the *SuperAge* podcast and founder of *ageist.com*, a media site that aims to break stereotypes of aging, Stewart keeps his finger on the pulse of health-tracking trends for people aged 50 and older. But health is also one of his personal passions.

Stewart tracks his own health with multiple wearable devices plus quarterly blood work through InsideTracker and an array of yearly check-ins with various physicians. His annual exams include a bone density scan, hearing test, and "all the usual― recommended physical examinations for people his age, such as a colonoscopy, prostate cancer screening, dental visits, and eye exams. He says the greatest benefit of consistent tracking is that it helps identify potential issues before they become bigger problems.

For instance, Stewart says, his latest blood work revealed low iron and calcium levels, and various tests have made him realize he struggles to metabolize vitamin D. So he supplements with all three and hones the dosage of his supplements based on each quarterâ€[™]s blood test.

"You can only improve what you can track,― Stewart says. "lf you're not tracking, you're just guessing. It's great to be intuitive. But feelings are not facts.―

Prioritizing Prevention

Stewart says he thinks health care today is oriented toward disease treatment, not prevention. This is a common criticism within the circles of experts and consumers who support health tracking. "Health tracking is about optimizing your health before you can ever get to a disease state,― he says.

Evan Melcher, a CAPTRUST financial advisor in Alpharetta, Georgia, says health-tracking data provides a starting point for planning. $\hat{a} \in \mathbb{C}$ We can $\hat{a} \in \mathbb{T}^{M}$ t shape the future if we don $\hat{a} \in \mathbb{T}^{M}$ t know where we $\hat{a} \in \mathbb{T}^{M}$ re starting from, $\hat{a} \in \mathbf{e}$ he says. $\hat{a} \in \mathbb{C}^{T}$ hese tests and check-ins and devices, they $\hat{a} \in \mathbb{T}^{M}$ re not complete solutions. They are tools that can help guide you to make more informed decisions and, hopefully, create better health outcomes. $\hat{a} \in \mathbf{e}$

Budesheim agrees. In fact, she says she knows the exact moment when she really started paying attention to her health dataâ€"long before her heart attack. "l was never a real health nut until my husband passed away.―

"lt was very sudden,― she says. "We found out he was sick on a Friday, and Monday, he was gone. In my head since then, l've always had this voice saying, Nothing is going to sneak up on me. l'm going to be listening to my body. l'm going to be proactive with my health care. All



the tests you have to get, the preventive stuff, l'm there. Sign me up.―



In addition to the data she gathers from her watch, Budesheim keeps a folder that contains years of results from cholesterol tests, mammograms, and more. She uses this information to make sure her new healthcare providers have a robust picture of her health history and trends. But health tracking isn't only about long-term disease prevention. It might also help you create healthier daily habits.

More Good Habits

"What l've found over time is that l'm either spiraling up, or l'm spiraling down,― Melcher says. "lt's not one thing you do that keeps you healthy for life. It's a lot of little things that add up, and they are all connected like dominos.―

Melcher says health tracking has shown him how his daily choices impact his health. "l had back surgery a few years ago,― he says. "When I was recovering, I couldn't exercise or anything, so I put on some unwanted weight. Also, I was indulging in too much red wine at night, which was affecting my sleep. There were all these trends that were going in the wrong direction.―



When he was able to exercise again, Melcher says he started to feel better. "l was seeing improvements in almost all my metrics, except in sleep quality. So I quit drinking. My sleep score improved significantly, and my LDL-C cholesterol level also started to drop.―

Melcher began to view his wearable devices as accountability partners, encouraging him to keep up his good habits and avoid bad ones. Now, he uses an Oura Ring, an Apple Watch, a Qardio at-home blood pressure monitor, and a body composition scale. Plus he gets regular blood work through his cardiologist. Heart disease runs in his family, so he stays attuned to his heart health, like Budesheim.

Most of Melcherâ€[™]s tools report directly to his phone, which he uses as the central location for all his health data.

"l try to keep moving in the right direction with baby steps that add up to a lot of good things because I want to be here for my wife and kids,― Melcher says.

By paying attention to his metrics, then tweaking his habits slightly but consistently, Melcher says heâ€[™]s seen dramatic health improvements. His resting heart rate has dropped by 10 beats a minute on average over the past year. "Thatâ€[™]s more than five million heartbeats a year that lâ€[™]m saving,― he says. "My heart is thanking me over and over again.―

The New Doctor-Patient Partnership

Culturally, the relationship between healthcare professionals and consumers is shifting, perhaps in part because of health-tracking tools. Patients have access to more information than ever, and many are eager for a more collaborative relationship.

"There's no longer just a physician behind a curtain interpreting your information and handing down advice,― Stewart says. Instead, consumers are becoming equal partners in the decision-making process.

But of course, consumers also have access to misinformation and poorly interpreted studies. In a survey conducted by Merck Manuals, 97 percent of primary care providers said patients have come to them with misinformation they found online.

For Stewart, learning more about how his body works is part of being an informed healthcare consumer. "Having health data allows a greater sense of partnership with the practitioner,― he says. "But we have to remember that those practitioners are infinitely more skilled than we are.― Mutual respect and humility are important to the doctor-patient partnership.

Budesheim says she feels empowered by what sheâ€[™]s learned but tries not to obsess over the details.

"lf I see or I feel something that isn't right, I check it out,― she says. "l'm not obsessive about it. I don't diagnose myself. But understanding what might be happening gives



me peace of mind.―

She has some friends who disagree. For these people, health tracking feels like opening Pandoraâ€[™]s box. They worry about what they might discover and whether theyâ€[™]II be equipped to handle it. Tracking like Budesheim, Melcher, and Stewart do is not for everyone, and people can rely too heavily on their devices for predicting or managing health outcomes.

Also, when it comes to sleep specifically, there is some evidence that tracking can have a negative impact on outcomes. *The Journal of Clinical Sleep Medicine* calls this *orthosomnia*: a fixation on achieving perfect sleep data that leads to anxiety and disrupted sleep.

For some, information can create fear. For others, it can lead to obsession. Those who most enjoy and benefit from health tracking seem to avoid both extremes.

"lf we're willing to be informed and not alarmed by information, we can make better lifestyle choices,― says Melcher. "We can hack the system a little bit. And when we do, we give ourselves a better opportunity to live longer, healthier lives that can impact more people.―

BEYOND WEARABLES

For people with specific diagnosed conditions and those who are interested in more advanced tracking, the following tools may also be helpful.

Continuous glucose monitors. Typically stuck to the back of one arm, these patch-type devices measure blood sugar levels throughout the day so you can track changes and identify trends.

Smart blood pressure cuffs. Compact and portable, these at-home devices can report directly to your phone and your physician for remote monitoring between visits.

Body composition scales. Using weak electrical pulses, these smart scales can automatically calculate your fat mass, bone mass, muscle mass, total body water, and more.

Regular blood tests. After age 60, government recommendations for yearly blood work include a complete blood count (CBC), glucose test, hormone panel, nutrient panel, and electrolyte count. Companies like InsideTracker provide independent blood tests and biomarker analysis with customized recommendations for behavioral changes and supplementation.