

Week 1

DIGITAL HEALTH & WEARABLES

What Your Devices Can and Can't Tell You

WHY SHOULD I CARE?

From smartwatches to fitness trackers, wearable technology is giving people more health information than ever before. But what do all those numbers really mean? Learning how these devices measure things like heart rate, sleep, and activity can help you better understand your health without jumping to the wrong conclusions. Wearables are powerful tools, but they're only one part of the bigger picture. The more you understand what your devices can—and can't—tell you, the better prepared you'll be to make informed decisions about your health.



KEY VOCABULARY

Baseline: Your normal measurements over time, used as a point of comparison to identify meaningful changes in your health.

Biometric Data: Physical measurements collected by a device, such as heart rate, body temperature, or sleep patterns.

Data Privacy: The protection and responsible handling of personal information collected by digital devices.

FDA Clearance: Authorization showing that a medical device has met FDA requirements for its intended use.

Heart Rate Variability (HRV): The variation in time between heartbeats, often used as an indicator of recovery, stress, and overall health.

Medical Device: Equipment intended to diagnose, monitor, prevent, or treat a medical condition.

Resting Heart Rate (RHR): The number of times your heart beats per minute while your body is at rest.

Sensor: A component that detects or measures physical changes, such as movement, light, or heart rate.

Wearable Technology: Electronic devices worn on the body that collect health, fitness, or activity data.

Wellness Device: A product designed to support general health or fitness but not intended to diagnose or treat disease.



BIG IDEAS

YOUR HEALTH HAS A BASELINE

Everyone's body is different. Wearable devices are most useful when they help you understand your normal patterns over time, making it easier to recognize meaningful changes that may deserve attention.

NOT ALL DEVICES ARE MEDICAL

Smartwatches and fitness trackers can measure heart rate, sleep, and activity, but they can't diagnose medical conditions. Understanding the difference between a wellness device and an FDA-cleared medical device helps you use health data appropriately.

YOUR DATA IS PERSONAL

Wearable technology collects valuable biometric data, but it's important to understand how that information is stored, shared, and protected. Reviewing privacy settings can help you make informed decisions about your personal data.

WEARABLES SUPPORT HEALTHY HABITS

Technology can help you build healthier habits and recognize trends, but it doesn't replace healthy choices or professional medical advice. The best health decisions combine information from your devices with your own judgment and, when needed, guidance from a healthcare provider.



Learn it. Live it.

The numbers on a fitness tracker only become useful when you understand what they mean. This challenge will help you look at your own health habits with a more informed perspective.

Challenge: Track one health habit for a full day, such as your steps, water intake, sleep, or active minutes. At the end of the day, think about what the numbers tell you and identify one small habit you would like to improve.

Reflection: What surprised you most about your results?

DID YOU KNOW?

People using wearable activity trackers in research studies walked about 1,800 additional steps per day on average, showing how tracking progress can encourage people to move more.

Source: *The Lancet Digital Health*



EXPLORE AND EXPLAIN

- How can wearable devices help people better understand and improve their health?
- Why is it important to understand the difference between health information from a wearable device and a medical diagnosis?
- How can tracking measurements like heart rate, sleep, or activity levels help people make healthier lifestyle choices?
- How can understanding digital health technology help you become a more informed healthcare consumer?



WANT TO KNOW MORE?

VIDEO



How Does Your Watch Know Your Heart Is Beating?

See how the flashing green light on a smartwatch measures your pulse and why the number isn't always perfect.

ARTICLE



Does Your Smartwatch Really Know When You're Asleep?

Find out how your watch estimates when you're sleeping, including light, deep, and REM sleep.

ARTICLE



Who Else Knows What Your Smartwatch Knows?

Your wearable collects information about your health and habits. Find out who may have access to that data and how you can protect it.

***"Technology can help you understand your health...
but only if you understand what the data actually means."***