

Track Your Activity with Technology

What Are Activity Trackers?

- These are devices or applications that monitor fitness-related metrics, like heart rate, distance walked or run, flights of stairs climbed, calorie consumption, and even quality of sleep. The devices themselves are wearable, usually in the form of wristbands or clip-on pods. In the past decade, activity trackers have become ubiquitous; advertisements display fancy, complicated-looking technology, and people can be seen wearing them out and about, even when they're not exercising.
- Activity trackers can also typically be synced, or connected with, smart phone and computer applications for long-term data tracking. One of their big appeals is the social dimension of fitness. Some of the devices' corresponding phone apps will provide games to stir up rivalry between users. This provides fun, game-like motivators to encourage users to stay active with their devices.



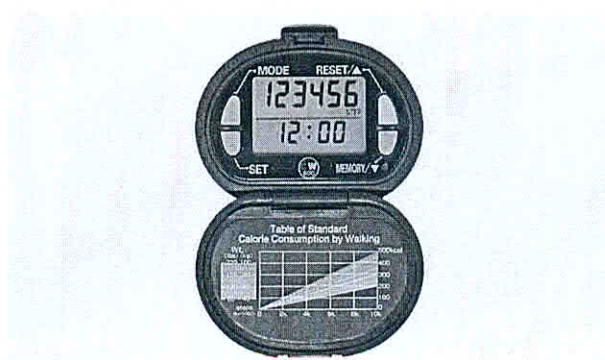
- Smart devices are a growing trend, and there will continue to be developments in this technology. While it may be intimidating when looking at the plethora of options, the devices all fundamentally do the same thing: help track fitness. In the past, technology was reserved for collegiate and professional athletes, but it has since been simplified and made accessible for everyday use.

Origins of Activity Trackers

- In order to get some perspective about where activity trackers came from, this page and part of the next will look at some important technology developments. These would all eventually become some of the most essential components of activity tracking instruments.
- 1921: The Lie Detector
 - Otherwise known as a polygraph, this device measured several aspects of physiology, including blood pressure, pulse, respiration, and skin conductivity while the individual was being interrogated.
 - Skin conductivity indicated how much someone would sweat, and this technology would be used later on with activity trackers, when it became commonplace to detect sweat changes during exercise.

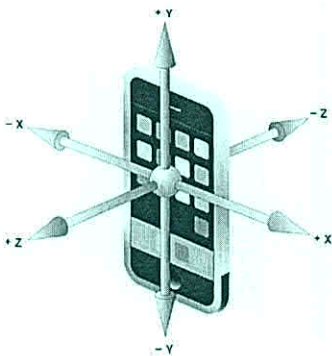


- 1965: 10,000 Steps
 - One of the most commonly referenced benchmarks for achieving basic health and fitness is the idea of walking, jogging, or running 10,000 steps each day.
 - This idea was put into use in Japan with the Manpo-kei Pedometer, which was created to assist with weight control and fitness in an increasingly obese Japan.
 - Interestingly, Manpo-kei translates to 10,000 (man), steps (po), and measure (kei).



• 1971: Accelerometer:

- Accelerometers are devices that measure proper acceleration, or g-forces. These were originally invented by Ford during the development of airbags. They needed a device that could detect sudden deceleration and make the airbags deploy.
- In addition to working in conjunction with airbags, accelerometers are also used in some smartphones, where the display can be rotated to show either a landscape or portrait view.
- For activity trackers, these accelerometers are used to detect the number of steps, such as in pedometers, and track the movement of someone sleeping to determine the quality of sleep.



Benefits of Using Activity Trackers

- The devices can absolutely help you improve your fitness. They allow you to set daily goals, such as with the number of steps you'd want to walk, and provide small awards and achievements when these goals are reached.
- Overall, they're easy to use. By having a piece of technology track your data for you, along with easy access to review the data, it's very easy to see how your physical activity changes over time. Having a sense of progress enables people to commit to using their device frequently.
- As mentioned before, there's a strong social aspect that can come with using activity trackers. While it's fun to get started with your own pace, achieving daily goals and becoming familiar with the technology. After awhile, it's fun to involve other people with your activity. Many of the devices have sharing features, where you can add friends who also have the same brand of device as you, and compare each others' daily goals and achievements.
- Studies have shown that involving other people in your progress helps you stick to long-term fitness plans. It's not so much encouragement between users, but rather our natural competitiveness that can make fitness feel a lot more fun.