

Researcher cautions against relying too much on smartwatches

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More and more heart rate monitors, fitness trackers and smartwatches are coming onto the market. But can you trust what they tell you?

Today's digital [fitness](#) gadgets should be able to tell you all kinds of things, from the quality of your sleep to how high your [heart rate](#) is. But these are not the measuring devices researchers use when measuring [activity levels](#). The reason? They are not of a high enough standard.

"The instruments we use in research have been thoroughly tested to make sure they measure what they are supposed to measure. The sensors in fitness watches and similar devices do not undergo the same testing, and therefore you cannot be sure that you are getting the correct metrics," says researcher Benedikte Western.

Uncertain basis

She is a Ph.D. research fellow at the Department of Sport Science and Physical Education at the University of Agder and uses activity monitors in her research.

She has noticed that many people are a little too concerned with what the numbers have to say about their training progress.

"The watch may give you a score that says something about your activity level that day, your sleep, the calories burned or similar. But we don't know how they calculate this," Western says.

Is it the heart rate above a percentage of maximal heart rate over time? The number of steps? Or perhaps a combination of several such factors?

"We don't know, and that makes it difficult to trust that you get the correct information."

They promise more than they can deliver

Finding the best way to measure activity is a large field of research. The

researchers themselves may not yet have found the best way to do this.

But what they use is the best there is so far, and they are aware that they don't have all the answers.

The marketing of many activity tracking devices says something entirely different. In some cases, they advertise that a fitness watch can give you a concrete insight into what time of the day you are in the best condition to achieve the best possible performance.

When researchers use activity monitors, they are primarily interested in the raw data which they later use to analyze the results.

This is a task the fitness watches do automatically.

"Some watches have daily activity targets, which can tell you that you've reached 60 percent of your fitness goal, for example. But based on what? Gender, age, weight, height, and body composition are some of the factors you need to take into account," Western says.

Best for motivation

She herself has used activity trackers in her research, also the regular ones that you can buy in the shop.

But then the purpose was not to look at the data the devices provide.

"I have been interested in finding out what motivates people to exercise, and activity trackers have a clear effect on most people."

She says that it is important to know that the best effect we know about from the use of fitness watches, is that they make you more active.

"If you go in depth on the numbers it provides, however, it is far from certain that you can trust the metrics," Benedikte Western says.

Provided by University of Agder

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