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Most citizens nowadays have access to some kind of activity or fitness tracker that can measure how much they walk, run, bike or sleep. Some persons use the standard applications in their smartphones or watches and others use more sophisticated purchased accelerometers to inform them about steps taken, calories burned, quality and duration of sleep. Many of these activity trackers allow us to review exercise patterns over the previous weeks and months. Some applications help to set personal goals such as training for a long-distance race or losing weight.

In addition to such monitoring of the activity performed during a certain time period and to goal-setting, a user of an activity tracker can get solicited (and unsolicited) advice on food choices or for example when it is time to buy new training shoes. Some applications even connect people with each other by finding persons who want to achieve similar goals or enrol persons to take part in a joint event, either ‘real time’ or virtual. Companies and industries seem to be successful to make people engaged in health, including increasing awareness on activities.

As health care providers we could use these developments and be inspired to use activity trackers to improve healthy behaviour for primary or secondary prevention, for example in cardiac disease prevention and treatment. It is known that barriers to achieve the recommended levels activity (and staying physically active) include lack of time, lack of money, and/or lack of motivation. (1,2) Health care providers and family members play a critical role in fostering motivation and the absence of a strong support structure may be one of the many reasons for the lack of motivation. (3) There is a need for tools that enable adults with cardiovascular disease to monitor their physical activity, set their own goals and obtain motivational feedback.

An activity tracker could be one of these tools, allowing patients to receive frequent and automatic feedback, tailored updating of goals based on achievement and possible remote contact with health care providers. Furthermore, incorporation of social components in activity trackers may support motivation through promoting relatedness to other patients. (4) Using activity trackers could help the patient to set realist goals. Currently, a lot of our advices to be more active are too general and might not feel realistic to reach for some
patients and for others they might be to ‘easy’. Activity tracking can help to personalize an activity advice.

In a recent activity program using an exergaming approach for diabetes patients, patients received a personalized advice. Based on the results of the baseline test and fitness assessment of the participant exercises and respective difficulty levels were selected from a pool of exercises. (5) A third application of using an activity tracker for motivation to be active can be to remind persons to be active for example by giving an alarm or vibrate to encourage behaviours. (6)

All these applications are promising and in a recent patient page of the JAMA-Cardiology wearable fitness trackers are predicted to become an integral part of society and health care. (6) The authors advise that ongoing and future studies will be needed to determine whether they can actually reduce the risk of developing heart disease and its attendant complications (6). However, as described earlier, adherence is the Achilles heel to the success of exercise and this can be extrapolated to the success of activity tracking (1). In this issue of the European Journal of Preventive Cardiology, the adherence to the use of a pedometer and accelerometer are discussed and Marin and colleagues describe that there was only 59% adherence to using the activity tracker, with forgetting to put the activity monitor in the morning or when changing clothes as an important reason for non-adherence (7). Another issue is the trust in the device by patients and by health care providers. Although Marin and colleagues pose that there is an increasing number of studies that the effectiveness and validity of using activity monitoring is well described, there is still a lot of debate on what the optimal tracking device is and how it should be optimally used. (8-10)

The article of Marin confirms that it is vital to study feasibility and usability of new applications of technology in “real-world” populations. There are great expectations of technology, but it should also be acknowledged that patients themselves have to be engaged in doing all this. Patients not only need to give active informed consent and have their confidentiality assured, it is important to with partnership making joint decisions and plans with the patient and if possible to integrate its use in the current care. Maybe in future some electronic health record systems will allow you to upload wearable data directly into your medical record and discuss them directly with your cardiologist or exercise physiologist, physical therapist or nurse.


