

Reading 2

Skills:

- Details
- Scanning
- Connect information

Getting started: Do you use any gadget to check your health state?

DEVICES THAT CONTRIBUTE TO OUR HEALTH

THE BODY MAP OF DIGITAL HEALTH SENSORS

The infographic shows a human silhouette with various body parts labeled and corresponding health sensors listed:

- HEAD:** Withings Health, Muse Neurosky, Fitbit, Miofit, Wahoo, Garmin, Luma Sun, Apple Watch, Polar.
- ARM:** Korla, Viatom, Spire, EKG Dongle, EKO, Cinclocloud.
- WRIST:** Viatom, Garmin, Fitbit, Miofit, Apple Watch, PIP, Empatica.
- FINGER:** Viatom, Garmin, Fitbit, Miofit, Apple Watch, PIP, Empatica.
- ELBOW:** Viatom, Garmin, Fitbit, Miofit, Apple Watch, PIP, Empatica.
- WHEEL:** Viatom, Garmin, Fitbit, Miofit, Apple Watch, PIP, Empatica.

As the future of medicine and healthcare is closely connected to the empowerment of patients as well as individuals taking care of their own health through technologies, we cannot omit health trackers, wearables and sensors as gadgets that can help people with different conditions. These are great devices to get to know more about ourselves and retake control over our own health.

For instance, a Fitbit Ionic can be used to monitor one's sleep and track their workout. It can be supplemented with the Polar H10 to fine-tune workout routines in order to find the best exercises depending on someone's abilities. For meditation, the *Muse headband* can help people find the main

things that they personally need for a successful meditation session. The device operates by representing brain waves that correspond to a more relaxed state through the sound of tweeting birds, and higher amounts of brain activity is represented by storm sounds, for example.

With the exponential progress in healthcare technology, we now live in a world where similar devices, which were once an illusion of sci-fi enthusiasts, are available. The *Viatom CheckMe Pro* is one such palm-sized gadget which can measure ECG (electrocardiogram), heart rate, oxygen saturation, temperature, blood pressure and more. There are also other companies working on similar devices like the *MedWand* which on top of measuring multiple vital parameters, includes a camera for telemedical purposes. Then there's the *BioSticker* from BioIntelliSense which, despite being tiny and thin, can measure a wide range of parameters like respiratory rate, heart rate, skin temperature, body position, activity levels, sleep status, the way someone walks and more.

Although the currently available products are a bit far from science fiction devices, we will get there soon. You will see high-power microscopes with smartphones, for example, analyzing tissue samples and photos of skin lesions. Sensors could pick up abnormalities in DNA or detect specific antibodies. An electronic nose, an ultrasonic probe, or almost anything we have now could be connected to a smartphone and augment its features. And we have to get ready for it!

No matter whether you would like to manage your weight, your stress level, your cognitive capabilities better or you would like to reach an overall fit and energetic state, there is a device for all of these needs and more! The beauty of these new tech-fueled devices is that they really make patients the point-of-care. With the ability to monitor one's health at home and share the results remotely with their physician, these devices empower people to take control of their health and make more informed decisions.

*Adapted from <https://medicalfuturist.com/ten-ways-technology-changing-healthcare/#>

Complete the following chart. Based on the gadgets described in the text, choose the device that matches each feature. Consider the specific gadgets but also the general ones. Sometimes more than one answer is correct.

	Feature	Device
1	It analyzes the way someone sits, lies or stands.	
2	It helps you meditate more effectively.	
3	It indicates how hot your body is.	
4	They can examine a layer of skin.	
5	It indicates if you're breathing correctly.	
6	It keeps track of your sleep.	
7	It has a built-in cam for virtual check-ups.	
8	They can perceive protective proteins.	
9	It analyzes the number of times the heart beats.	

What do you think?

Can technology also bring negative consequences for our health? Provide some examples.