

Table 1: Examples of features of lifestyle and wearable health technologyand home monitoring products

Feature	Health technology Devices	Relevance – (use with guidance of a health professional)
Heart-rate	Many smart watches record this parameter. Can also be obtained from phone apps, and from pulse oximeters.	Can give an indication of cardio-vascular health but does not lend itself to interpretation except by a health professional, or as a guide in intense exercising.
Saturated Oxygen	Can be captured from self- contained finger probes and some smart watches.	This is a relatively simple measure. It is a percentage value. It is particularly useful for people with compromised lung function (acute or chronic) and can provide a useful indicator to guide contact with health care services.
Temperature	Stand-alone digital thermometers, and those which link with apps.	Indicates infection. Can be useful during illness to inform escalation.
Blood pressure	Many stand-alone devices are available, including self- contained devices where the pump and display are built into the arm-piece. Some devices also connect with apps.	Useful measure of cardio-vascular health.
ECG	Some smart watches capture ECG and associated apps can detect Atrial fibrillation (Afib). None of these devices record passively – the user has to initiate the ECG recording. Recordings can be emailed as pdf documents.	Some of these devices claim automatic detection of one type of arrhythmia – Afib. Afib is serious, but it is only one type of arrhythmia. The recorded ECGs may be helpful in part of a diagnosis process by a healthcare professional.
Lung Function	Few lifestyle devices monitor lung function.	Important for those with compromised lung function but requires interpretation by a healthcare professional.
Heart Rate Variability	Available from some smart watches, smart rings, chest- straps and apps.	Used widely by exercise enthusiasts and athletes to guide their training intensity. Also is indicative of stress. Clinical value is still at a research level.

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Table 1: Examples of features of lifestyle and wearable health technologyand home monitoring products, continued.

Activity Falls Detection	Step counters are available as standalone devices, in smart phones and smart watches. Available on some smart watches.	Important for all to maintain a basic level of activity. Can also be useful if shared with a carer to indicate less movement than usual which could trigger carer level checking. If the watch wearer falls, the watch asks the user if he or she is ok, and if there is no response a message is sent to a predefined mobile number. This can include location information.
Weight	Available on low-cost weighing scales and higher cost digital scales which may provide info on fluid and fat content and record that on an app.	Important for all to manage their weight. Can be very important for those with some chronic diseases.
Pulse wave velocity	Available on some weighing scales.	An indicator of cardio-vascular health. Not ordinarily used by healthcare professions.
VO2max	Some smart watches.	An indicator of fitness levels, and so cardio- vascular health. It is based on rate of return of heart rate to normal levels after exercise. Not regularly used by healthcare professionals.
Sleep	Smart watches, smart ring, under mattress sensors.	Can encourage improved sleep hygiene and can also trigger self-referral to clinical services for sleep apnoea assessment.
Seizure sensor	Under mattress sensor.	Could be used by carers to alert in the event of a seizure.

Note: This is a very dynamic market and new devices are constantly being launched.