

Personal Emergency Respond (PER), Mobile PER (MPER) and Internet Of Things (IOT) devices Benefits & Limitations

PERS – PERSONAL EMERGENCY RESPONSE SYSTEM

PERS, commonly referred to as Medical Alerts, let you call for emergency support. A PERS usually consist of a transmitter (Personal Help Button - PHB), a console connected to your phone line or cellular module and an emergency monitoring center.

Help Buttons are lightweight, battery powered devices that can be comfortably worn around the neck or on the wrist. When help is needed, you can press the help button on the transmitter or the console, and it will automatically dial and connect you to the monitoring center. You will soon hear a voice from the console asking how you are and ascertain the type of help you need. Whether it's a false alarm, you need the attention of your responder or you need emergency services, the monitoring center will ensure appropriate help is dispatched. Even when you are unable to respond after pressing the help button, the monitoring center will ensure your wellbeing and safety.

BENEFITS

- Easy to use – simply press the help button
- Works within the effective range of the help button, usually up to 300ft.
- Relatively affordable monthly monitoring fee
- Qualifies for senior benefits subsidy for those that are eligible.
- Provides peace of mind for the user and their family
- Does not require charging
- Monitoring is around the clock, all year round.
- Allows you to safely live independently at home

LIMITATIONS

- Works only in and around its immediate vicinity within the effective range.
- Monthly recurring monitoring fee

Expert Tips

1. At minimum, the PERS should be water resistant to allow you to wear it in the shower or bath where falls are likely to occur and help is most crucial.
2. Choose a device where the help button is easy to press when you need it, yet does not cause too many false alarms.

PERS WITH AUTOMATIC FALL DETECTION

A PERS with fall detection is a step-up from the standard help button. In addition to the standard help button features, it automatically connects the user to the monitoring center via the console when a fall is detected; no button push is required. This is extremely beneficial for someone who is prone to falls, and could be incapacitated and unable to press the help button or respond to a monitoring center.

BENEFITS

- Automatically detects a fall and summons help, even when you can't.
- A must-have for people prone to falls or with a medical condition that affect cognitive function.
- Enhances safe, independent living at home
- Works within the effective range of the help button, usually up to 300ft.
- Relatively affordable monthly monitoring fee
- Does not require charging
- Provides peace of mind for the user and their family
- Monitoring is around the clock all year round

LIMITATIONS

- Could trigger false fall detections depending on activity and device.
- Only works in and around its immediate vicinity within the effective range.
- Monthly recurring monitoring fee

Expert Tips

1. It is not recommended that PERS with auto fall detection be worn as a wristwatch as arm movements would likely trigger false fall detections that could be an annoyance to the user, who would be discouraged from using the device.
2. The device detects a fall better when the device is close to the body.

MPERS – MOBILE PERSONAL EMERGENCY RESPONSE SYSTEM

Mobile PERS are medical alert devices that enable users to be monitored anywhere in and out of their homes. It does this by (a) pairing it to your mobile phone via Bluetooth or (b) with built-in cellular network capabilities similar to a mobile phone.

The latest MPERS devices come as all-in-one devices complete with cellular connection for two-way voice communication, GPS enabled location tracking and automatic fall detection. No console or phone lines are required and you can be monitored both in and out of your home.

BENEFITS

- Stand-alone device, does not need console or telephone line to work.
- 2-way voice anywhere with cellular connection.
- GPS and fall detection give you the freedom to do go more places and to do more unconstrained by the console.
- Allows you to safely live independently and the freedom to go everywhere and to do more.
- Monitoring is around the clock, all year round
- Qualifies for senior benefits subsidy for those that are eligible.
- Provides peace of mind for you and yours.

LIMITATIONS

- Requires charging every 2 to 3 days depending on usage and take between 3 to 6 hours to charge.
- GPS does not provide accurate locate when device is indoors but best outdoors under clear skies and away from tall buildings
- Requires cellular network connectivity to work.

- Some MPERS come with geo-fencing capabilities.

Geo-fencing is based on GPS coordinates and in many cases with Google Maps. This can sometimes cause false alarms of geo-fence breached due to technology-inherent location “drifts”.

Expert Tips

1. Look for one that is water-resistant and can be used in the shower or bath.
2. Test the loudness of the device speaker to ensure that you can hear clearly, even in places with higher background sounds.
3. Get one that incorporates the latest fall detection technology and algorithms.
4. You should be aware that the device does not provide coverage while it charges on dock. Be sure you are safe from falls and are near the device while it charges.

INTERNET OF THINGS (IOT)

The term “internet of things” (IoT) was first coined by Kevin Ashton, a digital innovation expert. IoT is a concept where everyday physical objects embedded with technology from a network via the internet where they communicate, share data and interact with one another. Internet of things is sometimes referred to as the second version of the internet where data is created by things, unlike the first version where data is created by people.

Several IoT categories have since arisen and “medical internet of things” (MIoT) or “internet of medical things” (IoMT) is one of them. More and more, medical alert devices are moving towards becoming IoT-enabled by integrating hardware, software, sensors, smart phones, medical applications, location tracking, fall detection and medical station analyzers. MIoT are wearables that provide reliable tools for long-term health monitoring that account for a large array of health and environmental indicators.

BENEFITS

- International monitoring possible with compatible mobile network connections.
- Employs other locational services such as cell-tower ping, WiFi and WiFi hotspots and LBS for better location precision indoors and outdoors.
- Geo-fencing with ability to trace route taken.
- Real time tracking possible.
- Integrated with BP, weighing scale, oximeter and glucometer to provide an accurate health status of the user.
- Usually come as small and attractive wearable device that moves away from the stigma associated with medical alert devices.

LIMITATIONS

- Precise location indoors is not possible, only an estimated location can be provided.
- Service is dependent on locational services available in the geo-fence area.
- Likely to drain device battery life significantly.
- Small size of device may be harder for some to use if they have poor sight, severe arthritis in fingers or aren’t tech savvy.