# Fall detection vs manual SOS buttons for older adults

## Understanding the two main ways to call for help

For older adults living independently, the ability to get help quickly after a fall or sudden illness can make the difference between a short recovery and a long hospital stay. Two common approaches dominate the market: automatic fall detection and manual SOS buttons. Each has its strengths and weaknesses, and the right choice depends on a person's lifestyle, health status, and daily routines.

Manual SOS buttons have been around for decades. They are simple, reliable, and require the user to press a button when they need assistance. Automatic fall detection, by contrast, uses sensors to detect a fall and alert a response centre without the wearer having to do anything. Both systems aim to reduce response time, but they suit very different situations.

## How manual SOS buttons work

A manual SOS button is usually a pendant or wristband with a large, easy-to-press button. When pressed, it sends a signal to a base unit connected to a phone line or cellular network, which then alerts a monitoring centre or a family member. The key advantage is control: the user decides when to call for help. This works well for people who are still steady on their feet and can reliably press the button when needed.

Manual systems are also less prone to false alarms. Because the button is pressed intentionally, the response centre knows the alert is genuine. This can reduce the number of unnecessary callouts and the stress that comes with them. However, the system is only as good as the user's ability to press the button. After a fall, a person may be unconscious, disoriented, or unable to reach the button. This is where manual systems fall short.

## How automatic fall detection works

Fall detection technology uses accelerometers and gyroscopes inside a pendant or wristband to detect the sudden motion and impact of a fall. When a fall is detected, the device automatically sends an alert to a monitoring centre. Some systems also include a short delay during which the user can cancel the alert if it was a false alarm.



The main benefit is that it works even if the wearer cannot press a button. This makes it ideal for people who are at higher risk of falls due to mobility issues, balance problems, or conditions like Parkinson's disease. It also provides peace of mind for family members who worry about a loved one living alone.

However, automatic detection is not perfect. It can miss some falls, especially slow or controlled slides rather than sudden drops. It can also generate false alarms from vigorous movement, such as bending over to pick something up or getting in and out of a car. Some users find the false alarms frustrating and may disable the feature.

## Comparing the two approaches side by side

When deciding between fall detection and manual SOS, consider the person's physical abilities, daily activities, and risk of serious falls. Below is a comparison of the key factors.

- **Reliability in a real fall:** Manual buttons require the user to be conscious and able to press. Fall detection works automatically, even if the user is unconscious.
- **False alarms:** Manual buttons have virtually no false alarms. Fall detection can trigger false alerts from everyday movements.
- **Ease of use:** Manual buttons are straightforward: press and help arrives. Fall detection requires no action from the user, but may need occasional cancelling of

false alerts.

- **Cost:** Manual systems are generally less expensive. Fall detection adds complexity and often a higher monthly fee.
- **Best suited for:** Manual buttons suit active, alert older adults. Fall detection suits those with higher fall risk or cognitive issues.

## When a manual SOS button is the better choice

A manual button is often the right choice for someone who is still mobile, lives alone, and wants a simple, low-cost safety net. If the person can remember to wear the pendant and has the strength to press the button, this system provides reliable, direct communication with a response centre. It is also a good option for people who are active and likely to trigger false alarms with automatic detection.

Manual systems are also more straightforward for family members to set up and monitor. There is no calibration, no sensitivity settings, and no learning curve. The user presses the button, and help is on the way. For many families, this simplicity is a major advantage.

## When automatic fall detection makes more sense

Automatic fall detection becomes valuable when a person's fall risk is high and the consequences of a delayed response are serious. This includes people with a history of falls, those with conditions that cause sudden weakness or dizziness, and anyone who lives alone without regular check-ins.

It is also worth considering for older adults who are reluctant to press a button for help. Some people feel they are bothering others or do not want to admit they have fallen. An automatic system removes that hesitation. The alert goes out whether they want it or not.




That said, automatic detection is not a substitute for good fall prevention. Removing slip hazards, installing bathroom safety rails, and using a mobility aid when needed can reduce the risk of falling in the first place. A medical alarm is a backup, not a primary safety strategy.

## Combining both approaches for maximum safety

Many modern medical alarm systems offer both manual and automatic features in one device. The wearer can press a button to call for help, and if they cannot, the fall detection kicks in automatically. This combined approach covers more scenarios than either option alone.

For example, a person might use the manual button for routine calls when they feel unwell or need assistance, while the fall detection provides a safety net for unexpected falls. This hybrid

model is becoming more common as technology improves and costs come down.

When evaluating such systems, it helps to look at the overall package: the quality of the monitoring service, the battery life of the device, and the range of the base unit. Some providers, like familyr.co.nz, offer medical alarm solutions that include fall detection, SOS alerts, and GPS tracking without monthly fees. This kind of integrated service can simplify the decision for families who want comprehensive coverage.

## Practical considerations before choosing

Before buying any medical alarm, think about the person's daily routine. Do they spend most of their time at home, or are they often out walking, shopping, or visiting friends? If they are active outside the home, a system with GPS tracking and a long battery life is important. If they are mostly at home, a base-station system with a good range may be sufficient.

Also consider the person's comfort with technology. Some older adults are happy to wear a pendant and press a button, while others find any device intrusive. Involve the person in the decision. A system they dislike is one they will not wear, and an unworn alarm is useless.

Think about the response time as well. How quickly does the monitoring centre answer? What happens if the alert is not acknowledged? Some systems automatically call a list of family members if the user does not respond. Others dispatch emergency services directly. Knowing these details helps you choose a system that matches the person's needs.



## Making the final decision

There is no single best choice between fall detection and manual SOS. The right option depends on the individual's health, lifestyle, and preferences. For someone who is active and alert, a manual button may be all they need. For someone with mobility issues or a history of falls, automatic detection adds a crucial layer of protection.

Many families start with a manual system and upgrade to fall detection later if the person's health declines. That flexibility is worth looking for when choosing a provider. Some companies allow you to add fall detection to an existing pendant, while others require a whole new device. Check before you buy.

Ultimately, the best medical alarm is the one the person will wear consistently and that provides the right balance of reliability, ease of use, and coverage. Whether you choose manual, automatic, or a combination, the goal is the same: to ensure that help arrives quickly when it is needed most. For those exploring options in New Zealand, providers like familyr.co.nz offer a range of features that can be tailored to individual circumstances, making it easier to find a solution that fits.