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Extending independence with dignity



# The Unsolved Problem – We All Fall Down

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## Why Fall Detection and the Medical Alert Industry, Overall, Needs Fresh Thinking

Medical alert devices save lives and keep seniors independent and aging in place longer. The medical alert industry ensures that millions of seniors get the help they require when they need it, whether from emergency services or a neighbor, as the situation warrants. Since the vast majority of seniors who wear a medical alert device do so specifically because they are concerned about experiencing a fall, the relatively recent introduction of fall detection technology has been a boon to the industry and consumers.

Despite these advances in the medical alert industry to provide fall detection, the percentage of seniors actually wearing these devices is low. The industry may be failing the senior population by not providing this fall detection technology in a device that is trusted and non-stigmatizing; problems that could be solved if the industry was motivated to do so. Let's take a look at these issues and identify reasons that they exist, and highlight companies that are leading the way towards better solutions for seniors and other vulnerable populations.

### A quick history of fall detection

Fall detection technology first entered the market in the form of wearable chest straps. The medical alert device manufacturers began to design wearable pendants utilizing this same technology. These devices, combined with a 24/7/365 access to emergency response centers, were widely available by 2010 and usable with an in-home communicator box configured to contact emergency responders when a fall was confirmed. As fall detection capability became standard, companies began to sell mobile devices wearable outside the home but still capable of reaching an emergency response center, either when a fall was detected by the device or when the help button was pressed. Some seniors have certainly been helped by auto detection and response fall technology, if for no other reason than the danger of older adults falling is real and growing.

## The increasing danger of senior falls

According to the CDC, 36 million adults aged 65+ fall every year. The [CDC cites particular fall risk](#) in individuals who have poor balance, Vitamin D deficiency, low blood pressure, medications linked to falls, vision impairment, foot or ankle disorders and home hazards. [One in five results in an injury](#), and 300,000 of these falls result in hip fractures, mostly in women. And a 'long lie time' (time on the ground before help arrives) [has been associated](#) with increased mortality. Even if a fall does not result in serious injury, those who fall may develop a fear of falling again, adding to the concern of social isolation that many seniors face.



## THE REALITY OF FALLS

### Lifestyle is a contributing factor for risk

Some factors may increase the risk (or at least exacerbate fear) of falling. In the US, 22% of adults aged 65+ are 'elder orphans' or solo agers, that is living alone without nearby friends or family. And 46% of women aged 75+ live alone. Yet all of these individuals want to retain their independence for as long as possible, including activities such as gardening, joining friends to socialize, going to the gym, and owning a dog that must be walked each day. In the face of known fall risks, how can they preserve their confidence in being out and about?

## THE REALITY OF FALLS

36 million adults aged 65+ fall every year

Every 19 minutes an elderly person dies from a fall

Falling once doubles the likelihood of falling again

Fall risk factors include:

- Poor balance
- Vitamin D deficiency
- Low blood pressure
- Medications linked to falls
- Foot or ankle disorders
- Home hazards

46% of women aged 75+ live alone

### The impediment to broad use of medical alert devices with fall detection:

Today where ageism is a surprising side-effect of the pandemic, "I am old" stigmas, like pendants, are yesterday's poorly implemented medical alert solution. Older adults want to live independent lives as long as possible.

Given that, it is surprising that even with the many health and life-protecting benefits that a medical alert device can provide, including fall detection, **fewer than 10% of seniors have one of these devices (and those that have the device wear it less than 50% of the time).**

There is a real stigma to these pendant-based devices, brought on by the industry itself through fear-based “fallen” advertising. This has literally turned off the vast majority of seniors that could benefit from these offerings.



It doesn't have to be this way and consumers see that

## The smart watch emerges and addresses the stigma.

In recent years, smart watches, including Apple and UnaliWear's Kanega Watch to name a few, have begun offering fall detection as a built-in reliable feature to be worn on the wrist.

The watch form factor has eliminated the stigma of wearing a bulky medical alert pendant device around the neck, which is a deal breaker for so

many prospective users. Unlike the Apple Watch, the Kanega Watch connects 24/7/365 to a dedicated emergency response center, an essential feature to properly triage the situation, promptly direct the care needed (whether to an emergency service or previously identified individuals), as well as alert family members and/or caregivers about the event that has taken place.

The trained care specialist receiving the alert can prevent unnecessary deployment of emergency services, which might lead to wasting valuable police, fire and/or medical resources. Equally important to the emergency response is the form function of these watches over traditional medical alert pendants. Since these smart watches provide basic and regularly used features, like time of day, day of the week and date, they are worn substantially more consistently

than traditional medical alert devices, including during the night and in the shower, where falls and other emergencies are most common (see **Figure 1 Comparison**):

	<b>Basic Medical Alert Offerings</b>	<b>Kanega Watch</b>
How to initiate in emergency	Button-press	Button press or voice-activated
24x7 safety	Frequently removed at night to recharge	Can be worn 24x7
AI (learning capability)	Not available	Fall detection learns over time, decreasing false fall detections
Medication reminders	Not available	Standard
Requires base station communicator in home	Requirement	No base station required; the watch is the entire medical alert system
Requires wearing of a pendant for fall detection	Yes, frequently a separate pendant from the medical alarm	No pendant required
Average age of wearer	82-year-old	75-year-old
Marketing messaging	Fear-inducing	Life-sustaining

# WHAT OLDER ADULTS NEED TO SUSTAIN AND RETAIN INDEPENDENCE

As 10,000 baby boomers began to turn 65 each day, beginning in 2011 through 2030, the population aged 75+ grows in parallel; today that's **roughly 22 million people**. Average life expectancy today at age 65 is 85.7 for women, 83.9 for men. With half of these older women living alone, they benefit from a well-understood variety of factors, including a healthy diet, exercise, weight management, medication adherence, social connections, and even pet ownership.

## Feeling safe or actually being safe?

Older adults also need to feel safe whether they are at home or out-and-about. UnaliWear's Kanega Watch is a wearable that enables them to experience a greater degree of safety, whether they are in the kitchen, the shower, out with the dog or by themselves. If the wearer needs emergency help, a trained care specialist at the 24/7/365 response center can be the best choice (see Figure 2):

Device contacts family or 911	Device contacts Response Center
Designed primarily for critical emergency response	Care Specialists are trained to fully engage with user, properly triage the severity of the situation and engage the proper response
Fear of 'bothering' inhibits wearer from requesting help	Care Specialists are able to speak with the wearer, for both major and minor emergencies, and stay in contact until help arrives
Much publicized 'knock the door down' inhibits wearer from use	Empowered Care Specialists can deploy the appropriate help to the wearer, including contacting a neighbor or caregiver, increasing likelihood of use
No mitigation of loneliness or self-neglect	Care Specialists can be trained to ask situation-specific questions to detect issues (heat, cold, health)
No health profile available	Health profile of wearer available immediately to the Care Specialist

## UNALIWEAR KANEGA WATCH

# Customers prefer to wear their watches



The key opportunity for providing the right capability to an older adult constituency is to find a way to ensure that they can benefit from and will wear a device when they acquire one.

**In comparison to traditional medical alert devices, the daily active usage of the Kanega Watch is 2-3x higher. In fact, 92% of Kanega Watch wearers wear their watch 24/7/365.**

In many cases, this can be the difference between responsive help in an emergency—particularly at night or in the shower—and no help at all.



# Conclusion

Older adults do not want to be perceived as old. They have historically felt a stigma associated with wearing a medical alert pendant (particularly for men), which has kept their adoption level low in comparison to the numbers of older adults at risk for falls. The UnaliWear Kanega Watch, with its emergency medical response center immediate connectivity, has also gained traction with this population by overcoming the stigma of pendants, providing a cool, non-stigmatizing smart watch that many more older adults are willing (and may even want) to wear to feel safe.

## About Laurie Orlov



Laurie M. Orlov, a tech industry veteran, writer, speaker and elder care advocate, is the founder of Aging and Health Technology Watch, providing critical thought leadership, analysis and guidance about health and aging-related technologies and services that enable boomers and seniors to sustain and improve their quality of life. Her perspectives have been quoted in the *Wall Street Journal*, *the New York Times*, *Senior Housing News*, and *Consumer Reports*. Laurie has also provided testimony about technology at a Senate Aging Committee hearing and consulted to AARP. Learn more at <https://www.ageinplacetechnology.com/>.

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