About 200,000 people in Ontario are living with dementia, and more than half will go missing at some point.¹

Roundup of Canadian GPS devices for Alzheimer's/dementia: stop wandering in its tracks
By Aysha Mendes – Freelance Health Journalist

Wandering is one of the most common and dangerous symptoms of Alzheimer's/dementia – a disease currently affecting close to 747,000 Canadians.² In 2013, Toronto’s 911 emergency services received 1200 calls about missing people with Alzheimer’s/dementia who had wandered, and many patients across the country have actually died as a result.³ The disease costs Canadians $33 billion a year in both medical care and lost earnings, and this number is continually on the rise.⁴ Family members are increasingly looking to support their loved ones to remain in their own homes and to maintain their independence for as long as possible – but safety is a top priority.

Below are my findings on some of Canada’s top GPS tracking solutions for people with Alzheimer’s/dementia:

1. **Personal devices**

GPS tracking devices, some of which have been designed especially for use in Alzheimer’s Disease and other forms of dementia, are becoming an increasingly popular option for minimizing wandering. They can usually be worn as a traditional pendant on a lanyard, are small enough to fit into a palm, pocket or purse, or can be attached to a belt. Many come with an SOS button and some with two-way communication capability. They can be linked to a GPS tracking system through which family members and caregivers can use their computers, smart phones or tablets to monitor the whereabouts of their loved one.

Users can also set “safe zones” through what’s called “geo-fencing” in the technology world. Geo-Fences allow parameters to be set of any shape and size so that when the person carrying the personal device approaches zone boundaries, any number of individuals set up as contacts can be notified via text or email, and an emergency contact centre can alert the appropriate emergency services. They will not only be able to identify the person’s approximate location, but will also be able to see in what direction and at what speed they are travelling, allowing insight into whether they are travelling on foot or in a car.
2. **Smart insoles**

For those concerned about their loved ones having to remember to carry around a personal device, particularly those in the later stages of Alzheimer’s/dementia, assistive wearable GPS technology may be the solution. One example of this is a pair of comfortable, ergonomic insoles designed to fit the user’s shoe. They can simply put on their shoes as they usually would and leave the house. They don’t need to remember to find or bring along a device, and don’t need to mention to anyone where they’re going – as soon as they leave the house, their relative or caregiver can be alerted.

For an additional layer of safety, they are water-resistant, and similarly to the GPS personal tracking devices discussed above, they are synced in real-time with a tracking portal which can be monitored by any number of emergency contacts. They offer the same monitoring and geo-fence features, can be charged wirelessly and allow for tracking of multiple users at one time, which can be particularly useful for care facilities.

3. **Watches**

Another wearable GPS solution available to people with Alzheimer’s/dementia is a watch. Although wrist and ankle bracelets are also available for this purpose, these are more often used for court-ordered monitoring rather than elderly care, and can make seniors feel restricted. A watch is something that everyone wears, and like the smart shoe insoles, can discreetly monitor a loved one with Alzheimer’s/dementia without actually making them “feel monitored”. They can go about their normal lives, but have the peace of mind that their loved ones will come for them if they get lost while out walking. They can press an SOS button if they panic, notifying their emergency contacts and can rest assured that their family member or caregiver will know if they inadvertently leave their ‘geo-fence’ safe zone.

Diverse solutions to suit different people and lifestyles- such as those listed above- are in demand by the families of people with Alzheimer’s/dementia, as well as their caregivers and police services. Panic pendants have been in use for some time but the realization that people with Alzheimer’s/dementia will not always be able to push a button for help has been spreading. In the age of GPS tracking, lives can be saved by pinpointing a person’s precise location, police resources can be more efficiently used and relatives of people with Alzheimer’s/dementia can maintain their peace of mind- while supporting their loved one’s independence. It is important to research and review products and the testing undertaken in development when considering products. There may be limitations and issues when considering the use of a device or tool. Please visit [http://www.alzheimer.ca/en/Living-with-dementia/Day-to-day-living/Safety/Locating-devices](http://www.alzheimer.ca/en/Living-with-dementia/Day-to-day-living/Safety/Locating-devices) for more information. Please visit [www.safetracksgps.ca](http://www.safetracksgps.ca) for more information on the Smart Sole and GPS devices.

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**References:**


**Sources:**

A new way of looking at the impact of dementia in Canada. Alzheimer Society, 2012