



# ActiveAdvice Guidelines DEMENTIA

HOW CAN AAL PRODUCTS SUPPORT YOU IN A SITUATION WHERE SOMEONE SUFFERS FROM DEMENTIA?

## WHAT HAPPENS WHEN DEMENTIA OCCURS?

People who suffer from a form of dementia experience the loss of cognitive functioning — thinking, remembering, and reasoning. Furthermore, it comes with a loss of behavioural abilities to such an extent that it interferes with a person's daily life and activities. These functions include memorization loss, language skills, visual perception, problem solving, self-management, and the ability to focus and pay attention. Dementia ranges in severity from the mildest stage, when it is just beginning to affect a person's functioning, to the most severe stage, when someone must depend completely on others for basic activities of living. [1]

## WHAT DO YOU FACE WHEN YOU ARE CONFRONTED WITH DEMENTIA?

Dealing with dementia does not only affect the individual itself, but also his or her immediate surrounding. The inner circle of people is also heavily affected by the disease. The

moment dementia is diagnosed, their world changes. The hardest thing is that a person's autonomy gets affected, and that communication diminishes. These aspects in particular put an extra burden on the people who take care of the person with dementia. [2]

## HOW CAN AAL TECHNOLOGY HELP?

Of course, technology cannot solve all the difficulties with regard to dementia, but it can support and relieve certain aspects. Which product can support depends on the stage of dementia the person is in. Technology is not only helping the individual who suffers from the disease, but could also relieve the inner circle of informal caregivers. In this guide we explain in which stages which type of products can be of help. We distinguish three different target groups for whom the technology is of use:

- The person with dementia
- The informal caregiver (their inner circle)
- Formal caregivers and health care professionals



*The use of in home cameras have helped in assuring that mom takes her medicines. Mounted under the cabinet and pointing down at the pill box we can remotely monitor if medications were taken and give reminder calls to coax her to do so.*

– Julie, alzheimers.net



## WHICH PRODUCTS CAN HELP ME?

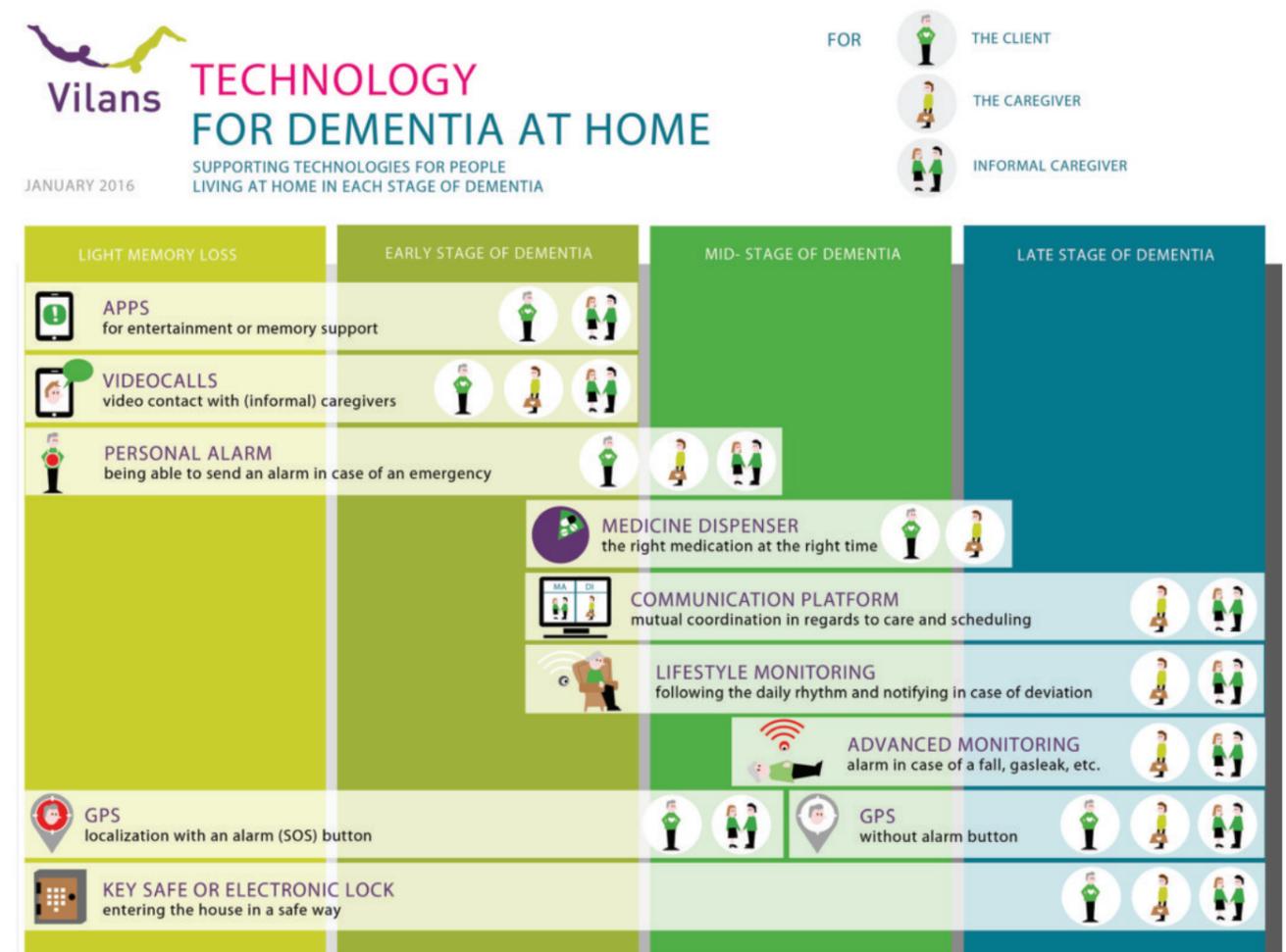
There are several solutions on the market, but depending on the needs you can determine which one suits your situation. The following infographic visualizes in what stage of dementia which type of technology can be used. We will now briefly describe the products that can be most helpful in the situation when a person with dementia lives at home.

**Mobile applications (apps).** An app is a computer programme for a tablet or smartphone. [3] There are several ones that can be used in the case of dementia. First, apps can be useful for the person suffering from the disease. For instance, playing games, listening to music or watching pictures from the old days etc. Next to that several apps can be used as a reminder, for instance to tell what time and day its. [4] Applications can only be used when the affected person suffers from light memory loss or is still in the early stage of dementia. Second, for informal caregivers there are special apps providing information on all kinds of subjects regarding dementia. Especially in the early stage of dementia, this can help to inform you about what to do and to expect.

**Videocalling.** By video calling you communicate via a

screen so you can see and hear each other. This is pleasant for the person suffering from dementia because it offers the possibility to call (informal) caregivers when he or she wants. In addition, seeing a face is more comfortable because it is easier recognizable. At the same time, it offers the caregiver(s) more reassurance to also see how the person reacts and responds. So, video calling can increase the safety and feeling of control on both sides. This type of support is mainly useful in an early stage of the disease. Examples of used products could be facetime on iPhones, Google Hangouts, or specialised programmes and telephones such as Pal-4.

**Personal alarms.** Alarm buttons are suitable for people with a light to mild form of dementia and can be used in case of emergency, for example when the patients have





fallen. The button is connected to an alarm centre, which contacts the first contact person. Alarm buttons are working based on an amount for a subscription for the connection to the alarm centre. When patients suffer from medium-stage dementia, the button cannot be used anymore since they might not be able to remember when to use it. Today, several forms and types of alarms exist, e.g. medalion, watch and bracelet.

**Medicine dispensers.** Taking the right medication on time can be a struggle for people with dementia. A range of different dispensers can support people to keep track of their medication by themselves. A medication dispenser provides a person with the right medication at the right moment. Medication is being released from the dispenser and a signal will be sent to caregivers(s). This way, it works both as a reminder for the person with dementia and as a monitoring system for the caregiver(s). This product can be of use starting from a mild stage up to late stage. In a very severe stage, however, people are not able to respond to the release of the dispenser anymore.

**Communication platforms.** Arranging all the care for persons with dementia can be a difficult task. By means of online secured communication platforms, caregivers can schedule care in an online agenda. If you would like to make use of such a product, check whether the platform you use is compatible with the system of professional care provider. [5] This solution is only of use for caregivers.

**Lifestyle monitoring.** People with dementia who live on their own will benefit of using lifestyle monitoring systems. Sensors register a daily rhythm and as soon as a deviation occurs, a notification is sent to a (informal) caregiver. This way, you can keep an eye on the person with dementia without intruding too much on privacy. Furthermore, situations of crises are easier to predict as a consequence

of changing daily patterns. It can provide reassurance to caregivers while being at a distance. This type of product can be used up to the late stage of dementia.

**Advanced monitoring.** In the late stage of dementia, more monitoring could be necessary. Advanced monitoring is the next step of lifestyle monitoring. These systems offer a more advanced set of sensors which alert in case of an emergency, for instance a fall or gas leak. This system reassures caregivers that they will be alarmed in time in case of real emergencies.

**GPS.** Forgetting the way or wandering can happen when someone suffers from dementia. In order to keep them safe and being able to locate wherever they are, a GPS system is a good solution. The system enables professional as well as informal carers to keep an eye on where the person is located. In the early stage of dementia and memory loss, a GPS system with alarm button can be useful. This way, the person can alert when they feel lost or when something happens on the way. From a medium to late stage of the disease they won't know when to use the button, so this function won't be useful any longer.

**Key safes or electronic locks.** For several reasons, people with dementia can be unable to let people enter into their house. Specially if they live alone, this can become really problematic when for instance a caregiver cannot enter. In this case, an electronic door lock or key safe can be of help. With a safe, one can stow the door key with an access code or specific key: An electronic lock offers the possibility to determine who can enter the house. The door only opens automatic for people that have a tag or electronic key or code. This provides a safe feeling for informal caregiver that the right people can enter when necessary and that strangers won't enter that easily. This type of product can be used in every stage of the disease.

## ACTIVEADVICE CAN HELP YOU IN FINDING THE RIGHT PRODUCT

Since every situation is different, it can be hard to find the right product for your needs. The ActiveAdvice platform is designed to help with this search. By means of decision support, the platform guides you to the most relevant solutions. Go to [www.activeadvice.eu](http://www.activeadvice.eu) and see how technology can support you.



*With no existing cure for dementia we must look towards technology to allow people with dementia to live independently in their homes, for longer.*  
– Dame Wendy Hall



## WHERE CAN I FIND ADDITIONAL INFORMATION?

The ActiveAdvice Information Hub provides up-to-date information about the AAL community, insights in the AAL market, practices and stories, products and services, and concepts and projects. Visit us on <https://www.activeadvice.eu/>



### Sources

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