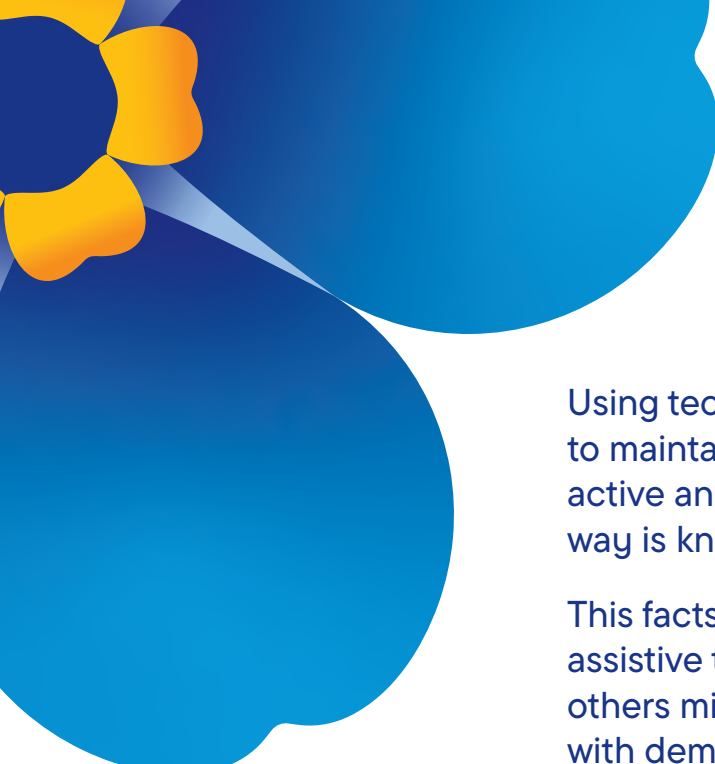


Using technology to help with everyday life



**Alzheimer's
Society**

Together we are help & hope
for everyone living with dementia



Using technology in everyday life can help to maintain independence, keep safe, and stay active and involved. Technology used in this way is known as ‘assistive technology’.

This factsheet is about the different ways to use assistive technology in everyday life, and how others might be able to use it to support a person with dementia. It explains the benefits as well as things to be aware of when using assistive technology.

Non-electronic items, for example mobility aids or pressure relief mattresses, aren’t covered in this factsheet.



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1 What is assistive technology?

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Assistive technology refers to devices or systems that help maintain or improve a person's ability to do things in everyday life. These can assist with a range of difficulties, including problems with memory and mobility.

Assistive technology ranges widely from items like electronic pill boxes (that remind you to take medication) to 'smart home' systems (that you can instruct to turn up the heating or switch off the lights).

There is also a lot of new technology on smartphones and tablets, which you may already have. This includes 'apps' that have been developed for general use, as well as apps specifically developed for people with dementia. Over time the apps for general use may replace some products that were originally developed for people with dementia. For instance, electronic medication alarms could be replaced by smartphone calendar apps.

You can use technology in a variety of ways, such as helping with everyday tasks and activities, improving your safety and monitoring your health. Some technology can also help people to support you. Some of the specific things technology can help with include:

- memory problems
- problems with planning and carrying out each step of a task
- communication, including speech and hearing
- mobility
- keeping safe both inside and outside the home
- maintaining independence and self-confidence
- socialising and doing things you enjoy.

You can find a range of items in our online shop (shop.alzheimers.org.uk) or in our Helpful everyday products catalogue (shop.alzheimers.org.uk/catalogue-download).

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2 Using technology

Assistive technology can help you to remain independent, safe, involved and active. Technology can also help other people to support you, and give them reassurance that you have the support you need. However, there are important things to consider about using technology.

Any technology must be suitable for you. Consider what you need and feel you can manage – it's important to use technology that you are comfortable with or think that you could learn to use. For instance, if you prefer typing on a keyboard instead of a screen then a tablet device may not work for you. The technology should work for you, and not the other way around. You may find some technology harder to use than others. You may find that you need to try different types of technology to find what works best for you.

If you are unsure what may help speak to a professional such as an occupational therapist.

If other people are helping to put technology in place for you, they should always make sure that what they are doing is in your best interests. The aim of using assistive technology should always be to enable you to be independent or safe, or to help you improve or continue living your daily life.

Consent

It is important that no decisions are made without your consent.

If someone doesn't have the ability (mental capacity) to consent, a decision would need to be made on their behalf. This would be made on a 'best interests' basis. However, the person should still be involved in the decisions as far as possible.

Consent is especially important when considering 'safer walking' devices (see page 11), as use of these devices may take away someone's privacy or could restrict their freedom. Anyone using this technology should be clear on how it works, how it can help and what information other people will be able to see.

The Mental Capacity Act 2005 sets out the law on making decisions for people who aren't able to make them for themselves. It also includes guidance on how people can make decisions. For more information see factsheet 460, **Mental Capacity Act 2005**.

Using technology appropriately

Technology can be very helpful, but it's best to use it only as much as you need to. For example, it should never be used to replace all face-to-face contact. Staying in touch with others is very important for your wellbeing, so meet with other people face to face if you can. Technology should not be your only way of staying in touch with others.

Cost

Some technology can be expensive. However, you may be able to rent rather than buy it. You can also get some technology second-hand. This can be useful as you may find that the support you need changes over time.

Planning for the future

If you're recording your wishes for the future (for example, in an advance care plan) you might want to mention technology that you do or don't want to use. For more information about planning ahead see factsheet 463, **Advance decisions and advance statements**.

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3 How technology can help

There are many different technologies that can help you in your everyday life. This includes assistive technology designed to help with problems related to dementia as well as general technology that may be useful, such as apps for smartphones and tablet devices.

There is more information in this section about technology that can help with:

- memory problems and daily activities
- keeping safe
- socialising and doing things you enjoy
- safer walking.

You may not need some of this technology now, but it can be helpful to know what's available and what may help in the future. You may also find some technology helps with more than one thing. For example, automatic lights may be helpful if you get up in the night, but they can also save electricity, as they can turn off if they don't sense movement for a set time.

Many people with dementia find that introducing and using technology as early as possible helps them to get used to it and means they can use it for longer.

For more information on technology to help you speak to your local social services, an occupational therapist or independent living centre, who can provide more information and advice on what is available locally. You can also contact one of the organisations listed in 'Other useful organisations' on page 15.

Memory problems and daily activities

If memory loss is affecting your everyday life, there are a number of devices that can help. They usually work by giving a visual, verbal or audible reminder to do something.

There is more information on the next few pages about electronic devices that can help. However, there are also non-electronic solutions to help with memory loss. These can be very simple, such as writing on notice boards and diaries, or using sticky notes or signs (it often helps to have pictures as well as words on these). For more information on non-electronic items see booklet 1540, **The memory handbook**.

You can find information on specific products and prices by searching online. It can be useful to read reviews to find out whether particular products will meet your needs.

Automated prompts and reminders

There are different devices available for setting reminders, and you can tailor many of these to your needs. Some of them can include a voice recording of you or your family or friend. Types of prompts and reminders include:

- **devices that detect motion** – these use a sensor or pressure mat and play a pre-recorded voice when there is movement. For example, you could set one of these to play a message when you walk out of the kitchen to remind you to turn off the gas.
- **devices that play set reminders** – these play messages at certain times. For example, you or your family or friend could use one of these to record a message reminding you to take your medication. If you have a smartphone, a calendar app can also show reminders.
- **accessing devices remotely** – with many devices, including tablets, PCs and smartphones you can give people you trust the ability to access it remotely. This means they can support you by adding reminders on your behalf.

Clocks and calendars

There are lots of products that can help you keep track of the day and date. Automatic calendar clocks show the date and day of the week as well as the time. Some clocks also show whether it is morning or evening, which can be very useful when it's light in the evening or dark in the morning.

Talking clocks are also available, and there are clock and calendar apps that you can download to your smartphone or tablet. These can be set up to meet your specific needs – for instance by choosing whether the alarm will be a noise, a flashing light or a vibration, and customising the layout of the calendar and clock.

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Medication aids

There are lots of different aids that can help you to take your medication at the right time. These include:

- **simple pill boxes** (often known as dosette boxes) – these have separate compartments for days of the week and times of day, to make it clear when to take your medication.
- **automatic pill dispensers** – these are pre-filled and locked. When it's time to take medication, the dispenser sets off an alarm and the right compartment opens so that you can access the correct pills. Some devices can be set so the alarm goes off until the pills are removed. Some devices can also alert friends or family if the medication hasn't been taken, or if there's a problem with the device (for example, the battery is low or it needs refilling).

It's useful to ask the pharmacist about medication aids including what is available and what would work best for you. The pharmacist may offer you an assessment to help you pick the best one.

Locator devices

A locator device can be used to help you find things you often misplace, such as keys. A small electronic tag is attached to each item you want to track.

Locator devices can work in different ways. In one system, if an item gets lost, pressing a button on a dedicated locator device will activate the tag with either a beeping noise, a flashing light, or a combination of both.

Locator devices can get lost so it's usually best to keep them somewhere safe in the home, for example mounted on the wall or fixed to a shelf (as long as the battery compartment can be accessed).

Another option is to attach a small tile to each item and link them to a smartphone using an app. The location of the item can then be shown on the phone's map app. Some apps will store the last place where the phone 'saw' the tile.

Hearing and vision aids

There are a range of devices that can help with sight and hearing difficulties.

For help with sight problems, there are different kinds of magnifiers that you can use for reading, ranging from handheld magnifiers to electronic magnifying video screens. There are a number of other devices such as Braille remote controls which may also help. There is also a wide range of technology available for people with hearing difficulties. This includes hearing aids, amplified phones (with louder ringtones or speech volumes), and doorbells that connect to a vibrating pager.

For more information, see 'Other useful organisations' on page 15.

Virtual assistants

Smart devices and virtual assistants (such as Amazon Alexa or Google Assistant) allow you to give voice commands or ask questions, which they then carry out or answer. This can range from asking what the weather is like, to creating an entire 'smart home' system which plays music, controls the lights and adjusts the central heating (although additional equipment would be needed for these).

These devices work using 'artificial intelligence' which means that over time they become more useful as they 'learn' to recognise your voice and the best way to help you. They can be useful for lots of different purposes and you can add new functions as they are released – such as adding a home alarm system that will 'listen' for sounds like glass breaking and can alert you remotely. You can also programme it to remind you about appointments or when to take medication. You can also use it to make phone calls.

If you're thinking of buying one of these devices, it's important to know that they are always on and listening out for what is called the 'wake word'. This is the word you use to let the device know you are about to ask a question or give an instruction. Some people have concerns about what information these devices record, how long it's stored for and who can access it.

Robotic technology

There is a growing range of robotic technology available, including small robotic pets and automatic vacuum cleaners. There are also more advanced devices such as 'smart robots' that can, for example, bring you an umbrella before you leave the house when it's raining. Like virtual assistants, many of these devices use artificial intelligence so that over time they should become more useful.

As some of these devices can be quite complicated and very expensive, they won't be suitable for everyone.

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Keeping safe

Everyone needs to feel safe and able to live independently in their own home. This may be especially true if you live on your own. While assistive technology is helpful for reducing risks, it will never make an environment completely risk-free. Technology that supports you to feel safe can be a great help when living with dementia. It could include:

- **Automatic lights** that come on when they sense movement and go off again when the room has been empty for a set time. These can be very useful if you get up at night, for example, as the light will come on automatically without you having to find the switch. You can also set how long they stay on for.
- **Automated shut-off devices** that can stop the gas supply or turn off a cooker if the gas has been left on. These may need to be installed, which may cost money, although there are local schemes and organisations who may do this for free. Check with social services or your local fire service for more information about this.
- **Water isolation devices** that can turn off a tap if it's left running, to prevent flooding.
- **Special plugs** that allow you to choose a certain water depth in a sink or bath. If the water goes above that level, the plug opens and the water drains. They can also include a heat sensor that changes the colour of the plug when it gets too hot. This can help prevent both floods and burns.
- **Fall sensors** that can register if a person has fallen. These can also be linked to telecare devices which can raise an alarm (see 'Telecare systems' below).

Telecare systems

Telecare systems are another way to help you stay safe. If you set up one of these systems, it can alert nominated family or friends in certain situations and will also allow you to access support if you need to.

Telecare systems can include community alarms, sensors and movement detectors, and video calling. An alarm can be linked to a certain person or a call centre. They will be alerted either when a sensor detects a problem or when the person themselves presses a panic button or community alarm.

The aim of these systems is to allow you to live independently and comfortably, knowing that your family or friends will be alerted if you have a problem. You can also set up a system to assist you to do things (for example, phoning you when it's time to take medication).

Telecare systems often need a telephone line or the internet to operate. However, some use mobile data (in the same way that mobile phones do).

You can get more information on what is available in your local area from social services or your local independent living centre, or by searching online.

There are different types of telecare and it can be used for a range of situations:

- **Community alarm** – these are wearable alarms that you can press if you become worried about your safety (for instance if you were to fall and be unable to reach the telephone).
- **Monitored medication reminders** – these are similar to automatic pill dispensers but are linked to a call centre. If your medication isn't taken at a set time, an alert is raised and you'll be phoned with a short reminder.
- **Floods** – sensors can be fitted on skirting boards or floors in the kitchen or bathroom. If taps have been left running and cause a flood, the system will shut off the water and raise the alarm.
- **Extreme temperatures** – you can install sensors that will send a warning if the temperature is very low, very high or changes suddenly. This can be especially useful in the kitchen where it can help prevent a fire or contact the emergency services if there is one. It can also detect if the temperature in a room is low enough for there to be a risk of hypothermia.
- **Bed or chair absence sensors** – a sensor can be put on your bed or chair so that if you get up and don't return by a certain time, or don't get up in the morning, an alarm is raised.
- **Getting up in the night** – sensors by the bed can activate an alarm when you get up in the night – for example, to alert someone to help you get to the bathroom.
- **Door sensors** – a system can let your family or friends know if the front door is opened – for example during the night, or if you were due to be out until a certain time but haven't returned.
- **Daily activity** – movement sensors can help to show your family or friends that you are at home and getting around safely. They are not the same as cameras because they do not record you – they only sense movement. This can be a good way to reassure your family or friends. These sensors can also be set to let your family or friends know about unexpected events that are not part of your usual routine.

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Like many of these devices, you'll need to consider carefully whether you want to use them and, if necessary, if you're happy to consent to someone else using them on your behalf. It is very important that decisions are made with your consent (where possible) and always in your best interests. You may want to consider whether you feel it's worth losing some privacy in order to be more independent. For more information see 'Using technology' on page 2.

Socialising and doing things you enjoy

Assistive technology can support you to stay engaged, keep in touch with others and do the things you enjoy – as well as trying new things. All of these are important for your wellbeing.

There are a number of apps on smartphones and tablets that you can use to help you do the things you enjoy – for example listening to music, video calling and activities to help with memory loss (such as reminiscence and life story work).

For more information about these activities see booklet 1540, **The memory handbook**.

As well as apps, there is lots of other technology you can use. These range from simple aids to more sophisticated devices.

- **Phones** – both landline and mobile phones can be pre-programmed with numbers that you need to call often, such as family, friends, or the GP. Adapted landline and mobile phones mean you can call people by pressing a large button, or a button with their photo on it. Most smartphones also have this option using a touch screen. On some phones it is also possible only to call numbers that have been preprogrammed into them, and also to block calls from numbers that you do not know.
- **Video chat** – you can use a programme or application such as Skype or FaceTime on your computer, tablet or smartphone to make video calls. You'll need internet access to use these.
- **Communication apps** – these are applications such as the 'Talking Mats' app which are designed for tablets, mobile phones and computers. This allows you to communicate how you're feeling or who you want to spend time with by selecting a word, picture or symbol. There are also physical communication mats and books which work in the same way but do not require an electronic device to use.
- **Social media and online communities or forums** – these can be used either to keep in touch with people you already know or to 'meet' new people. When using social media and online forums it can help to be aware that some people may not be who they claim to be. It is also important to never disclose any personal information online.

You may want to join Alzheimer's Society's online community, Dementia Support Forum, for people with dementia, their carers, family and friends. Go to forum.alzheimers.org.uk

- **Adapted equipment** – equipment such as radios, music players and other equipment can come in easy-to-use versions. Even small items such as a 'one-button' radio or simplified remote control can make a big difference.
- **Digital games, puzzles and apps** – you can use these for entertainment, leisure or mental stimulation. Some puzzle apps allow you to play with another person remotely, so they can be a good way to keep in touch as well as enjoy the game. AcTo Dementia provides guidance on different types of suitable apps (see 'Other useful organisations' on page 15).
- **Sensory devices** – these are items that use touch, sound and light to stimulate your senses (for example, sensory cushions can be very relaxing to use).
- **Digital photo frames** – these can display a slide show of photographs, as well as pieces of music, which are important to you. They can also provide something to talk about with visitors.

Safer walking

Some people with dementia might feel the need to walk about. Often this is not a problem, and can be good for their wellbeing. However, there may be times when going for a walk may result in getting lost or putting a person with dementia at risk, especially at night.

If you're caring for a person with dementia and want to know more about walking about see factsheet 501, **Walking and dementia**.

There are devices that can help someone to walk more safely. When choosing whether to use these, it's important to balance the needs of the person with those supporting them. Any device designed to help a person stay safe should respect their privacy and support their independence without being too restrictive.

Types of safer walking devices include:

- **Smartphone apps** – this is one of the easiest ways of keeping safe and letting people know where you are. Many smartphones have a 'find my phone' function (or a similar app you can download) and you can give a family member or friend permission to 'see' where you are (as long as you have your phone on you).
- **Boundary alarm system** – this can be set up to provide an alert if someone moves outside a certain boundary (for example the end of the garden). These devices cannot locate a person outside of that area.

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- **Door sensors** – this works in a similar way to the telecare devices above, where sensors are placed, for example, on the front and back door, and will send an alert if either door is opened. Similarly, some sensors will play a pre-recorded message reminding the person to tell someone where they are going.
- **Tracking devices or location monitoring services** – these use satellite or mobile phone technology to locate a person who is at risk of getting lost or going missing. This is the same technology that is used in smartphone ‘find my phone’ apps (see page 11). There are a number of different devices available such as watches, key rings or pendants. The person’s location can be seen on a computer, tablet or smartphone. On many devices there is also a panic button, and some feature two-way communication.

If you decide to get a safer walking device, consider how suitable it is. Think about the following.

- Is it easy to use?
- How often will it need charging?
- Will it work indoors?
- Is the signal strong enough in your area?
- How easy would it be to follow the guidance in the event of an alert situation?

Safer walking technology can help you to stay independent and continue doing things you enjoy. However, you’ll need to consider whether you and any family or friends are comfortable using it.

4 How to obtain assistive technology

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There are a number of ways that you can get hold of assistive technology including:

- Local authority needs assessments, which look at how a person's care needs can be met. These will usually include looking at assistive technology devices and how they might be able to help. For information on arranging one of these assessments see factsheets 418, **Assessment for care and support** (in England), NI418 (in Northern Ireland), or W418 (in Wales).
- If you live in supported, sheltered or extra care housing, some housing providers may supply assistive technology. A number of private housing providers have built properties which already incorporate telecare.
- You can buy many devices through shops or online suppliers. There are a number of useful websites which give more information on assistive technology (see 'Other useful organisations' for more information).
- Some local areas have places where you can get advice and try out devices before buying them. You can see a list of independent living centres on the Living Made Easy website (see 'Other useful organisations' on page 15).
- You can buy it yourself. Before doing this, it is a good idea to speak to a professional for advice, such as an occupational therapist. Your GP may be able to refer you to one or you can ask your local social services.

When you're choosing assistive technology, it's a good idea to find out as much as you can about what's available. A good starting place is our online shop (**shop.alzheimers.org.uk**) or the Society's Helpful everyday products catalogue (**shop.alzheimers.org.uk/catalogue-download**). When choosing technology, the decision should be made by, or with, you. If you aren't able to choose for yourself, a decision should always be made in your best interests.

It's important to find technology that you are comfortable using and which meets your needs. What works for one person may not work for another. If there is technology you already use, such as a smartphone, tablet or radio, it's a good idea to try and find ways to adapt it (for example by using a specific app). You may want to look for other technology that works in a similar way.

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It's important to make sure that any technology you choose works for you and doesn't restrict your independence more than necessary. Technology should be tailored to your needs and it should work with what you already have in place. As well as technology there are other steps you can take to retain your independence and stay safe and active. For example, look at your home and see if there are adaptations to the environment that may help – making sure there are good lighting levels, removing trip hazards, and making use of signs for example. For more information see booklet 819, **Making your home dementia friendly**.

When choosing assistive technology, it's important to think about:

- whether there is a need for it, or can you get the support another way
- what technology will best meet your needs
- your preferences and ability to use devices, and how these might change over time
- whether you have any other conditions that may affect how you use the technology (such as sight or hearing problems)
- how much support you have from other people and whether you will need this to be able to use the technology
- how well the technology will fit in with your usual routines
- whether the technology requires a phone line or internet access
- the cost of the technology – this includes both the upfront cost and any contracts, such as for the use of mobile data. Some devices are expensive, although some technology is cheaper than it used to be.

You can also find a list of questions to consider when choosing a solution in the Dementia-friendly technology charter – see **alzheimers.org.uk/technologycharter**

Other useful organisations

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AcTo Dementia

www.actodementia.com

AcTo Dementia provides recommendations and guidance on accessible touchscreen apps for people with dementia.

AlzProducts

024 7642 2224 (10am–3pm Monday–Friday)

www.alzproducts.co.uk

AlzProducts is a UK Alzheimer's and dementia specialist shop.

Living Made Easy

lme-enquires@shaw-trust.org.uk

www.livingmadeeasy.org.uk

Living Made Easy provides advice, information and training on independent living. Their website includes a web tool that offers advice, support and products for making daily living easier for older and disabled people (asksara.livingmadeeasy.org.uk). This tool has replaced the AT dementia website.

Healthcare Pro

customerservice@healthcarepro.co.uk

www.healthcarepro.co.uk

Healthcare Pro provides products and services designed to support independent living.

Royal National Institute of Blind People (RNIB)

**0303 123 9999 (helpline 8am–8pm Monday–Friday
and 9am–1pm Saturday)**

helpline@rnib.org.uk

www.rnib.org.uk

RNIB provides practical and emotional support to people affected by sight loss.

Royal National Institute for Deaf People (RNID)

0808 808 0123 (8.30am–5pm Monday–Friday)

contact@rnid.org.uk

www.rnid.org.uk

RNID provides support and care to people living with deafness, hearing loss and tinnitus. It was previously called Action on Hearing Loss.

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TechSilver
hello@techsilver.co.uk
www.techsilver.co.uk

TechSilver provides gadgets designed to make life easier, safer and happier.



Factsheet 437

Last reviewed: April 2019

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Reviewed by: Dr John Woolham, Senior Research Fellow
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This factsheet has also been reviewed by people affected
by dementia.

To give feedback on this factsheet, or for a list of sources,
please email publications@alzheimers.org.uk

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At Alzheimer's Society we're working towards a world where dementia no longer devastates lives. We do this by giving help to everyone who needs it today, and hope for everyone in the future.

We have more information on **Adjusting to living with dementia**.

For advice and support on this, or any other aspect of dementia, call us on **0333 150 3456** or visit **alzheimers.org.uk**

Thanks to your donations, we're able to be a vital source of support and a powerful force for change for everyone living with dementia. Help us do even more, call **0330 333 0804** or visit **alzheimers.org.uk/donate**



Patient Information Forum



Together we are help & hope
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