

Using Telecare and other technology to Support People with Autism in Moray

What Is Telecare?

Telecare is the name for a range of technology, such as alarms and sensors, which can help people to be more independent.

It can be useful in:

- Supporting independence at home
- Getting help quickly in an emergency
- Providing support in a less intrusive manner
- Helping create a safer environment.
- Preventing accidents.
- Giving re-assurance and peace of mind to carers and families.

In Moray, telecare is available to any adult with an assessed need eg you have discussed and agreed it with a Community Care Officer/Social Worker and you both agree that it would be beneficial in helping you be, or become more, independent.

There is a small charge for the telecare services if connected to the call centre. The call centre is an office which is staffed 24 hours a day. Some of the equipment below is linked to the call centre so that if you are having difficulties or are in danger the staff in the call centre will receive a message and will be able to contact you or an agreed person to support you.

Telecare Equipment

| What Is It? | What Does it Do? | When It May Help |
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|  <p>Community Alarm Unit</p> | <p>The alarm is connected to your home telephone line. When the alarm button is pushed it automatically telephones the call centre</p> <p>The call centre staff are able to talk to you through the telephone to check if you are okay. If you are not ok or you cannot talk to them, they will ask someone you know to attend. If necessary, they will contact the emergency services.</p> <p>The alarm can also be programmed with pre recorded reminder messages for example to remind you to take medication or to leave the house to catch the bus.</p> | <p>Getting help quickly in an emergency</p> <p>Helping reduce anxiety</p> <p>Can be linked with other equipment to help with door step security or to minimise harassment</p> <p>Reminders and prompting, including medication reminders</p> |
| <p>Timers and reminder devices</p> | <p>There is a wide range of “stand alone” timers, clocks and reminder devices which do not link to the community alarm.</p> <p>A memo minder announces a message when it detects movement nearby – for example if the device is placed near the door, it can be programmed to say “remember to take your keys” if you tend to forget them.</p> | <p>Reminding you to do something.</p> |

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|  <p>Automatic smoke detector</p>  <p>Temperature Extreme sensor</p>  <p>Gas sensor</p> | <p>Sensor monitors detect environmental changes or hazards in the home and raise an alert to the call centre if required.</p> <p>The smoke detector works in the same way as a conventional one, sounding an alarm when it senses smoke. This detector also telephones the call centre. Staff there will call the Fire Service if necessary.</p> <p>The temperature extreme sensor detects both high and low temperatures and a heat detector monitors for extreme heat. Often positioned near the cooker to raise an alarm if the heat is not switched off. It can also be placed low on the wall in living areas to raise an alarm if the room temperature becomes dangerously low.</p> <p>The gas sensor and carbon monoxide sensor sound an alarm when it detects natural gas or carbon monoxide and telephone the call centre if necessary..</p> <p>There are also devices to turn off electric hobs and shut off the gas cooker supply.</p> | <p>Fire risks in the home</p> <p>Extreme high temperature which may indicate a potential fire.</p> <p>Extreme low temperature such as heating breakdown/inadvertently turned off.</p> <p>For those with heightened or reduced sensory sensitivity to temperature changes</p> <p>Raise an alert to potentially dangerous levels of carbon monoxide or natural gas.</p> |
|  <p>Flood detector and Magiplug</p> | <p>The flood detector sits on the floor by the bath, sink or washing machine and detects if water has over-flowed onto the floor. It sounds an alarm in the room and can be programmed to telephone the call centre.</p> <p>Magiplug can be used to prevent a bath or sink from overflowing. When the water in the bath/sink reaches a certain depth the pressure plate in the middle of the plug opens and releases the excess water. The plug is also temperature-sensitive changing colour if over 32 degrees.</p> | <p>Prevents serious flooding.</p> |

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|  <p>Bed occupancy sensor (or chair)</p> | <p>The bed occupancy sensor can tell when the person has got out of bed during the night, or if they do not return within their usual time It can telephone the call centre or call a pager carried by family members or support staff.</p> <p>A similar sensor pad on a chair can also raise an alert if the user gets up.</p> | <p>Rising at night and risk of falls or wandering</p> |
|  <p>Movement sensor and Property Exit System</p> | <p>The movement sensor can be used to detect lack of movement, which may indicate that the person is unwell or has fallen. The sensors will be set to send an alarm call to the call centre if no movement is sensed in the house during a set period. It can also be used to alert a carer when someone moves into a dangerous area (e.g. near stairs).</p> <p>A movement sensor can be used in conjunction with a door alarm, to detect if a person goes out the door and does not come back in within a set time. This is used to alert family/keyholders if the person goes out at inappropriate times or is at risk being out on their own. It can be set for night time only, or for 24 hours. Alarms can also be placed on internal doors or on windows.</p> | <p>Wandering or leaving the house at inappropriate times</p> <p>Monitoring movement or inactivity within the house</p> |
|  <p>Epilepsy Sensor</p> | <p>A pad placed under the mattress monitors changes to breathing and rapid shaking movements which may indicate a seizure. It can raise an alert to either a carer's pager or to the call centre.</p> | <p>Epilepsy and seizures</p> |

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|   <p>GPS Tracker (emergency locator)</p> | <p>A Tracker enables family members or carers to locate the wearer quickly or allows the wearer to call for help if they get into difficulty or distress when outside. It works on mobile phone signals and checks where the tracker device is. Location can be checked by calling a call centre, viewing a map on a secure website, by text or email. Most models are worn around the neck, although some can be placed in a bag, or worn on a belt clip.</p> <p>Depending on the model selected, they may also have a:</p> <ul style="list-style-type: none"> • Built in fall detector to raise an alarm to call centre • SOS button the user can activate if they get into difficulty • A “safe zone” and alert raised if the tracker moves outside an agreed area • A speed detector (e.g. if the person is in a vehicle) • Limited mobile phone function | <p>Safer walking or travelling</p> <p>To support the user travel independently, for example on public transport</p> <p>To support carers locate user in an emergency situation</p> <p>For those unresponsive to verbal calls</p> |
|  <p>Fall Detector</p> | <p>It senses if the user falls down and does not get back up, and will telephone the call centre.</p> | <p>Those at risk of falling and being unable to get up independently.</p> |
| <p>Just Checking</p> | <p>This system uses movement sensors and door sensors in the main rooms in the house to show movement in the house. It does not use video camera or broadband. With consent, relatives can log on to a secure website to view the movement graphs. The system can also be set</p> | <p>Gives family peace of mind that the person is ‘up and about’</p> |

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| | <p>up to send text and email alerts if there is no movement.</p> <p>The telecare service use this only on a short term basis for assessment purposes. However, families can rent the system from the supplier or self purchase.</p> | |

Images courtesy of Tunstall and Tynetec

It is appreciated that some people with autism may be sensitive to some noises or lights and may find the introduction of equipment difficult. This would be taken into account when deciding what equipment might be useful.

All equipment can be tried for a short time to see if the person with autism and/ or their family/carers finds them helpful.

There are ethical issues in respect of choice, individual rights and consent when using certain telecare items. This will be discussed with the person with autism and/ or their family before any equipment is installed or provided.

To Find Out More About Telecare in Moray

- Further general information can be found on the Moray Council website (www.moray.gov.uk) listed under social care, community care, living independently, Lifeline and telecare.
- Anyone can ask for an assessment for telecare by contacting the Access Care Team, based at the Annex, High Street, Elgin. Tel 01343563999 or email accesscareteam@moray.gov.uk.
- The Independent Living Centre at Moray Resource Centre, Maisondieu Road, Elgin also has a display bedroom, kitchen and bathroom set up to demonstrate OT and telecare equipment which can promote independence and confidence. The centre is open to everyone - to make an appointment contact the Occupational Therapists on 01343 559461.
- Turnstall are one of the suppliers of telecare equipment. They have a section on their website called "Help for Carers" including a case study of telecare equipment supporting a mother and child with autism. You can also download a Carers UK booklet called "Carers and Telecare". www.tunstall.co.uk

Other Technology and Reference Sources

‘Apps’ are software applications designed for use on Smartphones, tablet computers and other mobile devices (e.g. notebooks, ipads and kindles). Apps are downloaded to the device you use – some are free, while others must be bought. They cover a wide range of topics but many are now available to support people who have autism to be more independent and/ or learn different skills for use in everyday life.

None of the apps listed have been formally tried and evaluated by The Moray Council; therefore mention here does not imply any endorsement of suitability or efficiency.

| App or Article about Apps | Brief Description | Where To Find Out More |
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| Wide variety of apps | Large database/list of apps | Autismspeaks.org |
| Various, including 5 fact sheets on apps | <p>Articles about using a hand held computer or apps for reminders; task scheduling; healthy living advice; behaviour management.</p> <p>Includes:</p> <p>“Apple Apps Resource Guide”</p> <p>“Apple and Android Apps for the support of people with autism”</p> <p>“Promising apps for hand held devices”</p> <p>“inexpensive apps for augmentative communication”</p> <p>“Reminder apps for the iphone, ipod touch, ipad”</p> | Virginia Commonwealth University (VCU) Autism Centre – www.vcuautismcenter.org |
| Various networking – | <p>Helps connect with and share with others incl parents:</p> <p>My autism team and Wrongplanet</p> | Myautismteam.com Wrongplanet.net |

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| Iprompts | Helps user follow a schedule or build a daily routine | Iprompts via handholdadaptive.com |
| The social express | Help with social situations | www.thesociualexpress.com |
| Superbetter | Managing anxiety or achieving a specific goal | Superbetter.com |
| Chorewars | Structure and fun around family activities, chores, homework etc | Chorewars.com |
| My Voice (app for iphone) | Picture on screen is tapped by the user and the word is spoken | www.autismahead.org myvoiceaac.com |
| iPrompt app | For ipad/iphone/touch/kindle/android phone. Provides visual support tools to improve attention to tasks, understanding of upcoming events, organisational skills, sequencing, and picture options for making a choice (e.g. food), prompts and timers. Can add own photos to standard picture library. Clear and well presented info on website | www.handheldadaptive.com |
| Buddyapp.co.uk | Therapy aid. Uses texting to keep a daily diary of what the user is doing and how they feel. May support positive behaviour. | Buddyapp.co.uk |
| Various apps and tools | Can customise for each individual uses videos, images and sounds - (designed for children) – suite of apps focusing on structure (breaking everyday tasks into defined steps); communication (vocabulary and speech based on customised images, videos and photos) and social skills app | Tech4autismnow.org |
| Various apps mentioned for communication aids and scheduling (includes some | Apps mentioned include – Lamp words for Life; TouchChat; SonoFlex; Grace; MyTalk; iCommunicate; Tap to Talk; Yes/No | www.autismconsortium.org |

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| <p>reviews)</p> <p>Also refers to visual timers; iPrompts; Social Media Communication aids and Job Interview Apps</p> | <p>Scheduling: Choiceworks app for completing daily tasks understanding feelings, waiting skills. Also Visual Schedule Planner app – can customise ipad app with audio and visual view of the day’s events and can include video clips.</p> <p>Video Scheduler app – app for iphone or ipad.</p> <p>Visual Cue app and ChorePad app</p> | |
| <p>Ipad, apps and autism – article weighing up pros and cons of using ipad technology for learners with autism</p> | <p>2013 Journal article from Sally Millar Specialist Speech & Lang Therapist, CALL, Moray House School of Education University of Edinburgh</p> <p>CID 29885</p> | <p>Available from UK National Autistic Society Information Centre</p> |
| <p>Article – Routes to Appiness</p> | <p>From Summer 2012 Autism Eye – selected 21 from 600 apps that get the thumbs up from parents. All apps available from iTunes apps and low cost – short summary of each</p> <p>CID 28389</p> | <p>Available from UK National Autistic Society Information Centre</p> |
| <p>Everybody ‘appy</p> | <p>NetBuddy article – a roundup of ipad applications that have been found to be useful for some children with autism</p> <p>CID 26392. Autumn 2011</p> | <p>Available from UK National Autistic Society Information Centre</p> <p>Or www.netbuddy.org.uk</p> |
| <p>Book “Apps for Autism” by L J Brady</p> <p>Published by Future Horizons</p> | <p>Apps for Autism – an essential guide to over 200 effective apps for improving communication, behaviour, social skills and more. Published 2011. CID 27545</p> | |

In addition the UK National Autistic Society provide the following list of articles, publications and links about apps, ipods and ipads:

| UK National Autistic Society – Apps and Technology for Autism (2013) | |
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| Website Link | Details |
| http://www.callscotland.org.uk/Common-Assets/spaw2/uploads/files/iPads-for-Communication-Access-Literacy-and-Learning.pdf | Mill, C. and CALL team (2012) iPads for Communication, Access, Literacy and Learning (iCALL). Edinburgh: CALL Scotland. |
| Netbuddy suggestions http://www.netbuddy.org.uk/info-packs/apps-ipad/ | Lots of tips and advice on this topic, and links to other reviews. |
| Autism Plugged In www.autismpluggedin.com | American website provides reviews of applications for the iPad and iPhone that are beneficial to children with autism and other special needs. These apps include AAC programs, social story and behavioural applications, reading and writing apps, fine motor skills apps. |
| http://www.ocali.org/view.php?nav_id=101 | The Ohio Centre for Autism and Low Incidence has a guide to apps for students with autism spectrum disorders |
| http://www.youtube.com/watch?v=W-eWvnWMx6c | Apps for communication |
| http://momswithapps.com/apps-for-special-needs/ | |
| http://www.scribd.com/doc/24470331/iPhone-iPad-and-iPod-touch-Apps-for-Special-Education | iPhone, iPad And iPod Touch Apps For (Special) Education |
| http://dsaq.probitypartners.com.au/down-syndrome-information/DSAQ_publications | Down Syndrome Association Queensland guide to apps |

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| http://itunes.apple.com/us/app/findme-autism/id491925436?ls=1&mt=8 | Find Me (free) |
| image2talk: http://image2talkapp.com | Can be used by adolescents and adults, age-appropriate pictures. |
| http://itunes.apple.com/us/app/ipicto/id423225072?mt=8&ls=1 | iPicto |
| https://itunes.apple.com/gb/app/calm-myself-down/id535009635?mt=8 ; http://appfinder.lisisoft.com/app/calm-myself-down.html | Calm Myself Down |
| http://www.dunedinmultimedia.com/index.html | Emotion-x – Dunedin Multimedia |
| http://appfinder.lisisoft.com/app/calm-counter-anger-management.html | Calm counter |
| https://itunes.apple.com/us/app/autism-5-point-scale-ep/id467303313?mt=8 | Autism 5-point Scale EP |
| http://www.fraser.org/Resources/Products/QuickCues.aspx | Quick Cues apps |
| http://autismxpress.com/ | Autism Xpress |
| http://www.oneplaceforspecialneeds.com/main/library_special_needs_apps.html | Complete guide to educational and special needs apps |

Some useful websites are listed below (some based outside the UK), including those collating a database of information on apps for autism and those with information on technology supporting autism:

- www.autism.org.uk National Autistic Society website.
- www.autismspeaks.org This website has a full database/list of apps. It is based on feedback from users and can be searched by age group or category or user ratings. The most common apps listed cover communication; social skills; functional skills, behaviour and organisation. It also details if the feedback is anecdotal, evidence based or research based. The website also has a “Guide to Technology” and

includes information on tools for communication skills, scheduling, supporting social situations, task organisation and managing anxiety

- www.tech4autismnow.org This includes details of a range of apps developed by TAN – including structured app; communication app; video modelling (using videos for modelling appropriate behaviour); social skills app and vocational skills app
- www.autismconsortium.org (search on their website for technology & autism)
- www.vcuautismcenter.org extensive section on autism and technology and includes fact sheet “Apple Apps Resource Guide” and “Apple and Android Apps for the support of people with Autism”. Also includes video entitled “strategies for video modelling with ipods and ipads” and various webcasts on technology.