



## Trellis Factsheet

### ***Dementia and gardening – creating a therapeutic gardening environment for people with dementia***

#### **Introduction**

This Trellis factsheet is a starting point for anyone gardening with people with dementia or interested in developing such a garden. It contains general information on **dementia** and the importance of garden activities for health & well being (page 1); **garden design** (pages 2-3); **planting** and **garden activities** (page 4) and provides **resources** and references for further in depth reading on pages 5-6.

#### **Dementia**

Central to designing a garden for people with dementia is to understand what dementia is and how it affects human health and behaviour.

Dementia is a syndrome, a group of related symptoms that is associated with an ongoing decline of the brain and its abilities, including thinking, language, memory, understanding, and judgement. People with dementia may also have problems controlling their emotions or behaving appropriately in social situations. Aspects of their personality may change. Most cases of dementia are caused by damage to the structure of the brain (NHS, 2010). This decline in brain function can have the effect of causing confusion, hallucinations, agitation and difficulties in controlling body movements. The majority of people with dementia are over 65 years of age and may have additional sensory impairments associated with aging such as deteriorating eyesight and hearing. They may also have declining physical mobility and strength as well as painful arthritic conditions etc. For further resources on understanding the needs of those with dementia see the Resources section on pages 5-6.

*Approximately 71,000 people have dementia in Scotland in 2010. Around 2,300 of these people are under the age of 65. The numbers of people with dementia in Scotland are expected to rise to 127,000 by 2031 (Alzheimer Scotland, 2010)*

## Why garden activities?

Having access to a garden can meet many health needs for people with dementia and their caregivers. For example:

- Physical health benefits. Garden activities provide exercise, for large and small muscle groups. This maintains and improves muscle tone and hand & eye co-ordination.
- Opportunities for Vitamin D production in skin in response to sunlight (Cobley 2003)
- Provides stimulation with colour, smells and sounds of wildlife. Multisensory stimulation (Cobley 2003, Kennard 2006)
- Opportunities to relieve tension, frustration and aggression & bring about positive mood change (Pallister, 2001)
- Provides personal space for reflection and privacy; reminiscence opportunities for self expression and reinforcing a sense of self (Cobley 2003)
- Provides different social environments: group activity reinforcing intimacy, privacy for solitude (Cobley 2003)
- Caring for plants may alleviate feelings of helplessness and of being dependent on others for care (Cobley 2003)

## First steps to designing a garden

**Consultation** is another key aspect of designing a garden for people with dementia, as it is for any garden design.

Directly consulting all those who will be involved in using the garden can reveal many aspects and issues which would otherwise be unknown and can lead to a garden that will be well used and become a vibrant and useful social space.

Consider who you consult:

1. Service users - people with dementia are individuals, with particular needs, abilities, likes and dislikes.
2. Service user families & friends
3. Staff

Consider how you consult. In order to enable views and preferences to be expressed consultation can be carried out in a series of discussions and events as part of daily activities. For those with dementia which affects their ability to communicate, using a series of pictures to communicate garden features, plants, likes and dislikes and other preferences may be a useful tool.

It is useful to find out:

What are everyone's expectations of a garden?  
What specific features, planting etc would they like?  
What resources/funding is available for now and in the future?

## Design features useful in creating a therapeutic gardening environment for people with dementia

A garden for people with dementia should be one that is easy to use and understand, free from ambiguity and one that provide opportunities for meaningful activity within it. To compensate for the various perceptual changes experienced by a person with dementia, garden design should strive to provide structure and reduce anxiety and confusion.

Consider including the following elements:

Access from garden to adjoining building should be obvious and visible e.g. visible, accessible doors, porch and path leading to garden or building entry.

An enclosed garden may be useful to keep wanderers in and provide shelter. The fencing, walls should be visually inconspicuous and can be disguised by planting.

A returning path system is useful to lead you on a journey through the garden returning back to the house or building (Kennard 2006), e.g. a figure of 8 or a more freeform loop.

Sturdy, comfortable seating, ideally with line of site from one seating area to another to provide opportunities to admire, rest, contemplate, socialise and continue the journey around the garden.

Easy visible access to toilet from garden.

Consider the mood and feeling of the garden. Create areas for communal activity and areas for being alone or in smaller groups. Include places to sit, shelter from the sun and the wind. Bushes and trees provide structure and can direct movement around the garden.

Think about garden access in all weathers. Provide protection from the extremes of weather throughout the four seasons of the year. Conservatories, greenhouses, pergolas, portable parasols, summerhouses or an indoor/outdoor activity room with access to the garden, all offer shelter and extend gardening access throughout the seasons, especially in the changeable Scottish climate. Protection from the sun in summer is important as certain medications, e.g. largactil, (Thorazine) or mellaril (thioridazine), can make the skin more prone to sunburn.

Think broadly about who will use the garden, e.g. those with dementia, friends and family, residential care staff .Plan for a range of ages and abilities. Include activities and play facilities that allow generations to interact, e.g. a slide, a games table, garden, BBQ. Think about visibility and observation so caregivers can still relax if they use the time for separate pursuits.

Consider locality and cultural trends as they may suggest appropriate objects to include in garden, e.g. mining area; seaside setting; residential home for those in media professions. These may all have bearing on items to include in the garden which reinforce the sense of setting or of self identity. For further resources on understanding the needs of those with dementia see the Resources section on pages 5-6.

Incorporate bird feeders or a bird table or bath, with opportunities to sit comfortably and view the bird activity.

As well as dementia, consider specific disabilities that deny use of one or more senses – gardens can be designed to have specific design features to compensate for that disability e.g. impaired vision – planting that can easily be reached , touched, smelt and with accessible signage, e.g. Braille; large text and high visibility tools that are easy to see against soil & vegetation.

Consider physical access for gardening activity, i.e. provide seating or wheelchair access – ‘table top’ beds, potting benches with space to allow chair users legs to slot in underneath and allow people to have hands in contact with plants & soil.

Use the *Dementia Design Checklist* to see if your garden design is dementia friendly. From the Health facilities Scotland web site at: [www.hfs.scot.nhs.uk/publications/dementia-checklist-v1.pdf](http://www.hfs.scot.nhs.uk/publications/dementia-checklist-v1.pdf)

### **Providing a safe garden**

Safety issues are central to good garden design for people with dementia. The design should include:

- Too much light reflection or too many dark areas are not helpful to older people who can have problems with their sight. A number of degenerative eye conditions are common in old age that can cause problems with perception , e.g. dark manhole covers can be perceived as holes in the ground
- Pathways that are smooth, and low in glare.
- Avoid steep gradients and steps
- Appropriate path width and patio area is very important if you are catering for wheel chair users. As people with dementia tend to lose physical skills and ability over time, it may be a good idea to cater for mobility aids at the outset.
- Use upward bevel edges on concrete walkways. This can keep wheelchairs from rolling into lawns or landscape beds.
- Handrails can be used along the pathways to help those who have difficulty in walking make these bright and easy to identify.

## Planting

Successful gardening relies on making the most of the local climatic and soil conditions. Many general gardening resources can advise on this. In relation to planting gardens for people with dementia, here are a few guidelines that may be borne in mind:

Avoid creating large dark shadowy areas with dense trees and shrubs. As well as create difficult plant growing conditions, people with dementia can perceive these areas as being forbidding or off putting. Trees such as birch or cherry can provide light cover. For more information and a comprehensive guide to plants, trees and shrubs try the RHS Gardeners' Encyclopedia of Plants and Flowers, <http://www.rhs.org.uk/Plants/News/New-RHS-Encyclopedia-of-Plants-and-Flowers>

Maximize perennial planting. Annuals take up more time but seed sowing & propagation can be incorporated into meaningful garden activity.

Place herbs, lavender and other scented plants so that when brushed they will release their fragrance

Use non-poisonous and nontoxic plants. Some plants can harm people if eaten, others can cause skin rashes and irritation. Consult the Royal Horticultural Society listing of potentially hazardous garden plants at [http://www.rhs.org.uk/research/documents/c\\_and\\_e\\_harmful.pdf](http://www.rhs.org.uk/research/documents/c_and_e_harmful.pdf)

Plant spiky, thorny plants out of arms reach or at the back of a border, where their architectural attributes can be admired, without being hazardous.

## Garden Activities

Always consult the person to see if the activity is something they would like to do, or do part of, or just watch (Cobley 2003)

Remember that taking a family member or a friend with whom to share the garden experience with, is often an enjoyable social activity.

Prompts for interaction and reminiscence can be found in the garden. For example, looking at flowers, fruit, vegetable and herbs, admiring the beauty of the shape, colour, flower, texture and smell can all stimulate the senses and provide enjoyment.

Be culturally aware, e.g. for older people, traditional garden plants such as roses, lillies etc. can evoke memories. Also daisy chains, dandelion clocks, conkers, unusual wartime recipes and old remedies from nature can all be brought up in conversation (Cobley 2003)

Using things grown in the garden suggests further activities such as arranging flowers (incl. drying & pressing them), leaf/potato print cards, make lavender bags and sprays, pot pourri, muslin bath herbs as well as preparing and eating produce from the garden (Cobley 2003).

Physical gardening can be enjoyed as well as garden watching, try bringing chairs into the garden (Cobley 2003)

Plan the garden using plant catalogues, garden books, magazines, TV programmes and gardening web pages such as the BBC

For suggestions regarding all year round garden activities, many of which can be adapted for those with dementia and sensory impairment see the Trellis Factsheet *Planning Year Round Garden Activities Ideas and Resources* available from the Trellis Factsheet web pages at <http://trellisScotland.org.uk/factsheets>

## Resources

### Dementia

For information about dementia and support available to those with dementia see the Alzheimer Scotland: Action on Dementia web pages at <http://www.alzscot.org/>

Dementia Services Development Centre list of publications on dementia and caring for those with dementia available at [http://dementia.stir.ac.uk/files/PublicationsList-Nov09-EDITED3\\_0.pdf](http://dementia.stir.ac.uk/files/PublicationsList-Nov09-EDITED3_0.pdf)

Talking Mats - visual communication system used with those with dementia

<http://www.psychology.stir.ac.uk/research/AAC/documents/DementiaandDecisionMakingshortfindings.pdf>

### Design for dementia

*Best Practice in Design for People with Dementia, 2007*, kit includes:

- Pollock, A. *Designing Gardens for People with Dementia*
- Pollock R., McNair D., McGuire B., Cunningham C., *Designing Lighting for People with Dementia*
- Pollock R., *Designing Interiors for People with Dementia*
- *Dementia Design Checklist*

Available from the Dementia Services Development Centre, University of Stirling <http://www.dementiashop.co.uk>

*Dementia Design Checklist* is also available in electronic format for general use from the Health facilities Scotland web site at: [www.hfs.scot.nhs.uk/publications/dementia-checklist-v1.pdf](http://www.hfs.scot.nhs.uk/publications/dementia-checklist-v1.pdf)

*Design for People with Dementia: Audit Tool*, DSDC, University of Stirling <http://www.dementiashop.co.uk>

*Alzheimer's Garden Plan* by Christine Kennard for About.com [http://alzheimers.about.com/od/familyandfriends/a/garden\\_design.htm](http://alzheimers.about.com/od/familyandfriends/a/garden_design.htm)

*Gardens for people with dementia*, available from Ageing and Health - Norwegian Centre for Research, Education and Service Development at [www.aldringoghelse.no](http://www.aldringoghelse.no) or email [post@aldringoghelse.no](mailto:post@aldringoghelse.no)

## References

Alzheimer Scotland, Action on Dementia web pages, *Table 1: Estimated number of people with dementia in Scotland in 2010 by local authority area*, <http://www.alzscot.org/pages/statistics.htm> accessed 13.10.10

Cobley, M., 2003, 'A place to delight the senses and refresh the soul' *Journal of Dementia Care*, July /August 2003, pp20-23, London, Hawker Publications

Equally Well Review 2010: Report by the Ministerial Task Force on Implementing Equally Well, The Early Years Framework and Achieving our Potential, The Scottish Government, Edinburgh 2010, <http://www.playscotland.org/assets/2010-Review-Equally-Well.pdf> accessed 6.10.10

Kennard, C. 2006, Alzheimer's Garden Plan for About.com updated 24.11.2006 [http://alzheimers.about.com/od/familyandfriends/a/garden\\_design.htm](http://alzheimers.about.com/od/familyandfriends/a/garden_design.htm)

Loughborough University research paper on gardening for patients with dementia [http://www.lboro.ac.uk/research/ccfr/growing\\_together/Gardens%20for%20Patients%20with%20Alzheimer.pdf](http://www.lboro.ac.uk/research/ccfr/growing_together/Gardens%20for%20Patients%20with%20Alzheimer.pdf)

Mind, 2007, Ecotherapy, The Green Agenda for Mental Health, [http://www.mind.org.uk/campaigns\\_and\\_issues/report\\_and\\_resources/835\\_ecotherapy](http://www.mind.org.uk/campaigns_and_issues/report_and_resources/835_ecotherapy) accessed 13.10.10

NHS Choices, *Dementia* web pages <http://www.nhs.uk/conditions/dementia/Pages/Introduction.aspx> accessed 13.10.10

*Designing Balconies, Roof Terraces and Roof Gardens for People with Dementia* by Annie Pollock & Mary Marshall available from Dementia Services Development Centre, University of Stirling at <http://www.dementiashop.co.uk/products/designing-balconies-roof-terraces-and-roof-gardens-people-dementia>

### Planting

RHS Gardeners' Encyclopedia of Plants and Flowers, <http://www.rhs.org.uk/Plants/News/New-RHS-Encyclopedia-of-Plants-and-Flowers>

Royal Horticultural Society – listing of potentially hazardous garden plants

[http://www.rhs.org.uk/research/documents/c\\_and\\_e\\_harmful.pdf](http://www.rhs.org.uk/research/documents/c_and_e_harmful.pdf)

Garden Which, 2007, *Poisonous Plants*, factsheet available at <http://www.which.co.uk/documents/pdf/poisonous-garden-plants-153943.pdf>

accessed 13.10.10

### Funding

The Scottish Voluntary Sector Dementia Support Service provides subsidised help for voluntary sector & community groups in Scotland dealing with dementia. The Dementia Services Development Centre, University of Stirling, in conjunction with the Tudor Trust, gives subsidised access to specialist information on dementia care, support training, consultancy. Contact Jemma Galbraith, Project Manager 01786 467740, or email: [jemma.galbraith@stir.ac.uk](mailto:jemma.galbraith@stir.ac.uk)

### Other

For information on how to make gardening easier for the physically less agile try the Trellis Factsheet *The Trellis No-Sweat Guide to Planting* available from <http://trellisscotland.org.uk/factsheets>

Arthritis is often found in older populations and can inhibit movement, for practical ideas of how to garden with arthritis see the Arthritis Research Campaign web pages at [http://www.arthritisresearchuk.org/arthritis\\_information/arthritis\\_\\_\\_daily\\_life/gardening\\_and\\_arthritis.aspx](http://www.arthritisresearchuk.org/arthritis_information/arthritis___daily_life/gardening_and_arthritis.aspx)

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Pollock A. 2007, *Designing Gardens for People with Dementia*, The Dementia Services Development Centre, University of Stirling

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