

Hallucinations in people with dementia

This factsheet looks at different types of hallucinations that are sometimes experienced by people with dementia, and ways of responding to them. It is intended to give basic information about hallucinations for people with dementia and carers.

Hallucinations can occur for all the senses (sight, hearing, touch, smell, taste, and perception of our body), though visual hallucinations are thought to be the most common type experienced by people with dementia.

'Visual mistakes' - such as illusions and misperceptions - are not hallucinations, though they are sometimes mistaken for them. Visual mistakes can result from poor vision and damage to anywhere in the visual system including the brain.

Not everyone with [dementia](#) will be affected by hallucinations, and not everyone who has hallucinations has dementia. Since a person with dementia may have difficulty finding the words to describe accurately what they are seeing or experiencing, this should be taken into consideration when observing and listening to accounts of what they say they have experienced.

[People with dementia](#) may be particularly concerned about visual hallucinations that persist for long periods, recur often and/or frighten the person and alter normal behaviour and interaction patterns. Indeed, such [symptoms](#) can be troublesome and also signal a more severe disease course. Of note, there is emerging evidence that some people with hallucinations seem to respond particularly well to anti-dementia drugs, whereas some respond quite poorly.

How common are hallucinations?

Since hallucinations are often associated with mental illness, people experiencing them may be reluctant to discuss them. Some hallucinations are temporary, do not cause long-term difficulties, and are unrelated to mental illnesses. Sometimes, though, they can represent a major problem and specific treatment is needed. In addition to the dementia itself, there could be other causes for hallucinations including physical illness, fever and medications.

Many healthy people experience brief hallucinations at some time in their lives. But since they can 'test reality' or solve problems accurately, they are aware that these are not real, and as such, not worrying. People with dementia may not be able to do this accurately.

Visual hallucinations

Genuine visual hallucinations involve seeing things that are not present, as opposed to seeing something poorly and mistaking, misperceiving or misinterpreting what is seen. There are a variety of types of 'visual mistakes' resulting from poor vision and damage to the visual brain areas (see Factsheet 527, [Visuoperceptual difficulties in dementia](#)), which should be distinguished from genuine visual hallucinations.

Visual hallucinations can be simple or complex, and can be as diverse as seeing light flashes, patterns, people, animals, distorted faces, objects, complicated landscapes or bizarre situations.

Momentary visual hallucinations can result from a number of causes including seizures, headaches, infections and strokes, which affect the visual areas of the brain or other related areas. Other temporary causes of hallucinations include certain types of injury and a variety of illnesses. Also, many categories of medications commonly taken by older persons can have visual side-effects.

Hallucinations may be associated with the progression of some specific types of dementia, in particular dementia with Lewy bodies - see Factsheet 403, [What is dementia with Lewy bodies?](#)

It is not always easy to determine whether someone with dementia is having genuine visual hallucinations. A number of other possibilities need to be eliminated, and a medical professional may need to be consulted.

1. Could lighting conditions or illusions explain what was reported? Someone could have misinterpreted glare, a reflection, a dark shadow, or patterns. (For example, people have mistaken reflections in mirrors for imposters, and small patterns or stains on carpets for insects and vermin. In one instance, rays of sunlight shining on heavily embossed wallpaper were mistaken for a waterfall coming from the ceiling, which was then mistakenly attributed to being caused deliberately by neighbours living upstairs.)
2. Could language or time perception difficulties explain what was reported? It may be that a person is referring to things inaccurately but not literally seeing things that are not there. For example, someone might refer to four green frilly-edged cushions as cabbages.
3. Consult the GP to check for other illnesses and also take into account other factors that might be contributing like a recent bereavement.
4. Consider any medication. Check if the person is or was recently taking medications that could produce visual or other side-effects.
5. Special visual testing may need to be arranged (by eye specialists).

Poor eyesight and visual perception

It is important to be aware that simple interventions may help people experiencing visual perception problems.

A variety of visual mistakes and misperceptions can occur as a result of age-related visual change and eye conditions. There can be damage to the visual system in various [types of dementia](#), including [Parkinson's disease](#), [dementia with Lewy bodies](#), and post-stroke [vascular dementia](#). In addition, in [Alzheimer's disease](#) especially, there may be damage to the parts of the brain involved in visual object processing, leading directly to visual deficits, and subtle changes in optical markers that reflect progression of disease.

There are a number of ways in which people with sight problems can be helped:

- The single biggest thing to consider is lighting levels. Make sure that lighting in the home or care setting is good. It has been estimated that more than half of British homes do not have enough lighting even for ordinary visual purposes (Whitfield Grundy, 1992). Improved lighting was found to be instrumental in preventing falls, and in reducing visual hallucinations (Pankow et al, 1996).
- Try to eliminate shadows and surfaces with busy patterns. Some people with dementia also find mirrors and television screens problematic (they misperceive their reflection for someone else, and may think people on TV are in the room).
- Arrange regular eye checks and encourage the person to wear glasses if they need them. Glasses will improve acuity (sharpness) and this is important, however they cannot correct difficulties resulting from other types of damage to the visual system. Such difficulties can include ability to detect movement, boundaries, depth, and making the correct small eye movements necessary to read from line to line accurately or watch TV.
- Check that any glasses worn are clean and that the prescription is correct.
- If cataracts are the cause of poor sight, talk to a GP about whether to remove them surgically.

Other types of hallucinations

Less frequently, hallucinations can involve hearing, smelling, tasting or feeling things that are not present or perceived by others. Different types of sensory hallucinations are associated with certain illnesses, injury, medication and some specific types of dementia, and need to be investigated if they recur or persist.

Auditory hallucinations

These involve hearing voices, sounds or noises, when no such sounds exist. As with visual hallucinations, it is important to rule out possible physical causes such as illness and the side-effects of medication. Always check the person's hearing and make sure that their hearing aid is working, if they have one. Auditory hallucinations are rare in dementia, and are more commonly seen in people with certain types of mental diseases, in particular schizophrenia.

Tinnitus is sometimes described as an auditory hallucination. Tinnitus is a condition which occurs commonly with increasing age, characterised by persistent, unstoppable, background sounds/noises - often of high frequency - which are not present in reality.

One early indication that a person may be experiencing auditory hallucinations is if they talk to themselves and then pause, as though listening to someone else before continuing. However, talking to oneself is very common especially in people who spend a considerable amount of time alone. Not everyone who does this is experiencing auditory hallucinations.

People are less likely to hear voices that are not there when they are talking to someone real, so company can help.

Other sensory hallucinations

Every sense can be affected by hallucinations. Less common sensory hallucinations include:

- tasting things that are not present (gustatory hallucinations)
- smelling things that are not present (olfactory hallucinations)

- feeling things on or under the skin, nails or in the mouth, that are not present (tactile hallucinations).

Note that a number of mouth conditions, illnesses and medications can alter taste and smell perception - and appetite (Bromley, 2000). Some antipsychotic medications can leave a bitter taste in the mouth for many hours and even alter sweet and salt perception (Schiffman, 1998). Such things need to be ruled out before considering if they are genuine smell or taste hallucinations.

Multi-sensory hallucinations

Sometimes people experience several types of sensory hallucinations simultaneously. Multi-sensory hallucinations can indicate serious toxic or infectious illness (or other physical illness), and can also be experienced with acute drug and alcohol withdrawal. These require urgent medical attention.

Supporting people experiencing hallucinations

Where you suspect real hallucinations, try to explain calmly what is happening, to see if the person can take in this information and retain it. If they cannot, try repeating it when the person is more rested and calm. However, if this is still not possible, there is little point in arguing. You are extremely unlikely to convince someone with damaged logical thinking ability that their thoughts are incorrect, or to persuade them of the objective facts of reality through logical argument. Efforts to reason logically become even more difficult when adrenalin levels are raised, as they are during an argument. Trying to convince someone that they are mistaken can lead to more distress, for both parties.

Stay with and observe the person if possible, especially if they are frightened. Improve light levels, eliminate shadows and dark areas. Listen carefully to what they are describing. Offer reassurance. See if distraction stops the apparent hallucination. Tell them that what they are sensing is not evident to you, but that you want to know what they are experiencing. Try not to make them feel stupid about what is happening. Get urgent medical help for the person if hallucinations involve multiple senses, are of long duration (several weeks), recur frequently, and/or frighten the person.

If a person appears to be genuinely hallucinating, consult a GP. It will help if you have the following information:

- Accurate notes or observations about:
 - what was allegedly seen or sensed (to compare to what was actually present or happening)
 - when (what time of day) after what event (nap, meal, exercise)
 - where (details of the exact location)
 - for how long (seconds, minutes, hours, days; intermittent or constant)
 - whether the person was distressed
 - the words the person used to describe what they think they saw.
- Current and recent medications (including self-prescribed) and dosage.
- Recent and past physical and mental health illnesses (including alcohol or drug use or overdose).
- Recent bereavements.
- Information about previous sight (or other sensory) conditions and most recent sight test prescription (or other prosthetic devices).
- Use of alcohol or other recreational drugs, or overdoses.

For details of Alzheimer's Society services in your area, visit alzheimers.org.uk/localinfo
For information about a wide range of dementia-related topics, visit alzheimers.org.uk/factsheets

Useful organisation

Dementia and Sight Loss Interest Group

Alzheimer's Society, RNIB and the Thomas Pocklington Trust have created the Dementia and Sight Loss Interest Group. The Interest Group considers connections between loss of vision and dementia, including difficulty with visual perception that may be related to dementia and other eye conditions such as cataracts.

For further information and support contact:
Clive Evers

Alzheimer's Society

T 020 7423 3586

E cevers@alzheimers.org.uk

Rebecca Sheehy

RNIB

T 0117 9341 702

E rebecca.sheehy@rnib.org.uk

Sarah Buchanan

Thomas Pocklington Trust

T 020 8995 0880

E sarahb@pocklington-trust.org.uk

References

Ballard CG, O'Brien J, James I, Swann A (2003) 'Dementia: Management of behavioural and psychological symptoms', *Nordic Journal of Psychiatry*, Vol 57, No 2: pp159-160.

Bromley S (2000) 'Smell and taste disorders: A primary care approach', *American Family Physician*. Jan 15;61(2):pp427-36, 438.

Jones GMM, Harding J, van der Eerden-Rebel W (2006) 'Visual phenomena in Alzheimer's disease: distinguishing between hallucinations, illusions, misperceptions and misidentifications' *Care-giving in Dementia* (Vol 4), (BML Miesen & GMM Jones Eds), Routledge, London, pp59-104.

Jones GMM, van der Eerden-Rebel, W, Harding J (2006) 'Visuoperceptual cognitive deficits in Alzheimer's disease', *Care-giving in Dementia* (Vol 4), (BML Miesen & GMM Jones Eds), Routledge, London, pp59-99.

Pankow L, Pliskin N and Luchins D (1996) 'An optical intervention or visual hallucinations associated with visual impairment and dementia in elderly patients' *Journal of Neuropsychiatry*, 8: pp88-92.

Schiffman SS, Graham BG, Suggs MS, Sattely-Miller EA (1998) 'Effect of psychotropic drugs on taste responses in young and elderly persons', *Annals of the New York Academy of Sciences*, 855: pp732-737.

Whitfield Grundy J (1992) 'A glimmer of light', Optometry Today, 21 September: pp18-21.

Factsheet 520

Last updated: June 2010

Last reviewed: June 2010

Contributing Reviewer: Dr Gemma Jones, Dementia Education and Care Consultant, The Wide Spectrum, Dementia Education Resources.

Alzheimer's Society National Dementia Helpline

England, Wales and Northern Ireland: 0300 222 11 22

9.00am-5.00pm Monday-Friday

10.00am-4.00pm Saturday-Sunday

Registered charity no. 296645. A company limited by guarantee and registered in England no. 2115499.