

Dementia and people with learning difficulties – some basic information

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What is dementia?

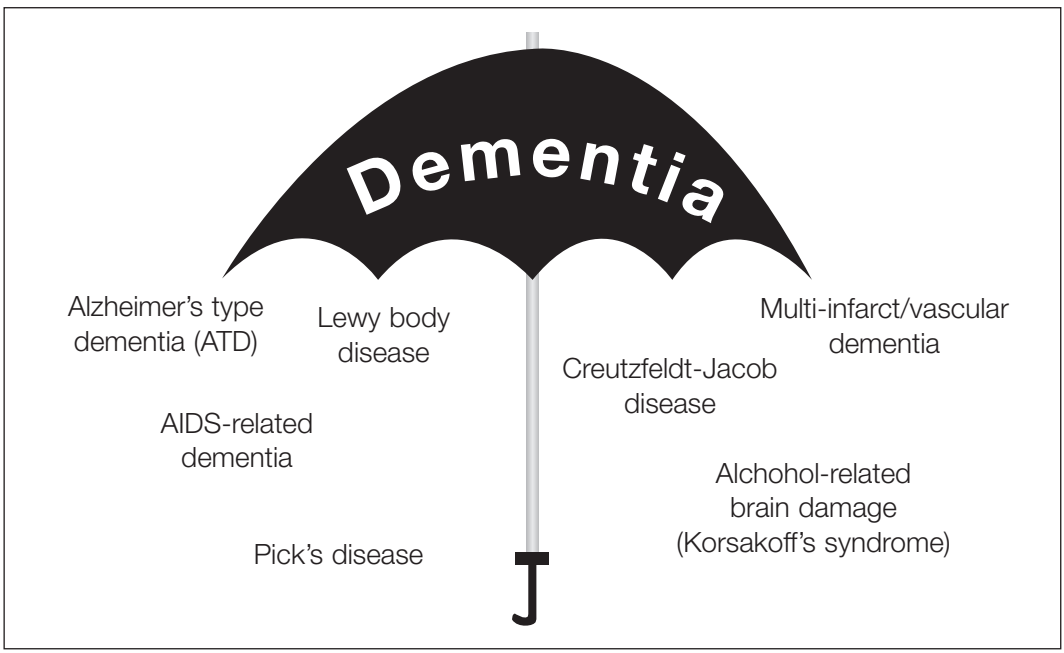
Dementia is an umbrella term used to cover a number of conditions of the brain that have a similar pattern of symptoms.

The symptoms will vary slightly, depending on the type of dementia. Generally, however, the person will experience a progressive deterioration in all areas of functioning.

The most common characteristics of dementia are:

- failing memory
- changes in mood, personality and behaviour
- impaired reasoning
- impaired ability to learn new things
- a high susceptibility to stress (anxiety, fear and panic)
- acute sensitivity to the social and built environment
- increasing dependence on the senses.

There are many dementias that come under the umbrella heading of ‘dementia’. Some of these are:



Alzheimer's type dementia is the most common type of dementia.

Alzheimer's type dementia (ATD) is caused by changes in the brain caused by the production of plaques (which contain a protein called beta-amyloid) and tangles and deterioration of the nerve cells. Once these changes have occurred, they are irreversible.

The disease progresses throughout the brain at varying rates. As each part of the brain is damaged, it loses its ability to function. *It is important to note that some functions are found in more than one area of the brain.* This means that damage in one area can sometimes be compensated for by another area. An example of this would be speech and language.

The second most common dementia is known as vascular (or multi-infarct) dementia. In this type of dementia, the person has tiny strokes which damage the brain. Unlike ATD, the brain is able to compensate a bit for the damage, so the person does temporarily regain some functions before further deterioration.

It is very important to note that no two people will have the same experience of the condition.

Although the damage is irreversible, it is characteristic of people with dementia to be more receptive some days than others. Changes can also occur throughout the course of the day. This may be due in part to an on-off impulse in the transmission of signals in the cells, or simply because the person has fewer resources to call on, so is much more likely to be affected by things like tiredness, stress, anxiety and physical illness.

Dementia and people with learning difficulties

🔧 Tool 1

For more information about the brain and how it works, see the diagram of the brain

People with learning difficulties, like the rest of the population, are living longer. They are, therefore, susceptible to the illnesses and conditions of older age. Dementia is one of these.

There are mixed messages from the research about how many people with learning difficulties are affected by dementia. It seems, however, that people with learning difficulties *for reasons other than Down's syndrome* have a similar or only slightly increased risk of developing the condition, compared to the rest of the population.

The prevalence of dementia in the general population

Age in years	%
30–59	0.1
60–64	1.0
65–69	1.4
70–74	4.1
75–79	5.7
80–84	13.0

(Adapted from Hoffman *et al*, 1991)

For people with Down's syndrome, however, there is a different, higher rate. Studies vary slightly but the following prevalence figures are the findings from one study (Prasher, 1995).

The prevalence rate of Alzheimer's type dementia amongst people with Down's syndrome

Age in years	%
30–39	2.0
40–49	9.4
50–59	36.1
60–69	54.5

- The average age at onset is 54 years.
- The average time between diagnosis and death is 4.6 years.

Although these figures show that people with Down's syndrome have a much higher rate of ATD than the general population, they also show that **not everyone develops the condition**.

What is the reason for the connection with Down's syndrome?

The most favoured explanation for the link between Down's syndrome and dementia is the existence of the third chromosome 21. This chromosome is involved in the production of the beta-amyloid protein that is found in the plaques and tangles that are found in the brains of people with ATD.

By the time they are 40, almost everyone with Down's syndrome will have these plaques and tangles deposited on their brain. At this stage, few will have the clinical symptoms of dementia and, indeed, some may *never* develop the symptoms. At the moment no-one is able to explain this fully.

References

Hoffman A, Rocca WA, Brayne C, Breteler MMB, Clarke M, Cooper B, Copeland JRM, Dartigues JF, Da Silva Droux A, Hagnell O, Heeren TJ, Engedal K, Jomker C, Lindsay J, Lobo A, Mann AH, Molsa PK, Morgan K, O'Conner DW, Sulkava R, Kay DWK & Amaducci L (1991) The prevalence of dementia in Europe: a collaborative study of 1980–1990 findings. *International Journal of Epidemiology* **20** (3) 736–748.

Prasher V (1995) Age-specific Prevalence: Thyroid Dysfunction and Depressive Symptomology in Adults with Down's syndrome and Dementia. *International Journal of Geriatric Psychiatry* **10** 25–31.

Further reading and information

Factsheet on Learning Disability and Dementia

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Web: www.alz.co.uk

Learning disabilities and dementia. Alzheimer's Society information sheet (January 2000)

Alzheimer's Society (UK)

Web: www.alzheimers.org.uk/pdf/i_learningdisabilities.pdf