

The Physical Comorbidities of Dementia



Consumer Edition



Health
Northern Sydney
Local Health District

An overview of dementia

What is dementia?

- Dementia describes the progressive, irreversible syndrome of impaired memory, intellectual function, change in personality and behaviour causing significant impairment in function. These symptoms are caused by disorders affecting the brain. There are many different types of dementia.
- The most common is Alzheimer's disease, caused by the presence of plaques and tangles in the brain. The second most common is vascular dementia mainly caused by strokes, and leads to memory problems.
- Dementia with Lewy Bodies is a combination of memory loss and problems with movement similar to Parkinson's disease.
- There are several other behavioural types of dementia, for example Fronto-temporal dementia, Picks disease and other rarer types of dementia.

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What is a comorbidity?

A comorbidity is a condition or disease that co-exists with another disease. The comorbidities discussed here occur more commonly in people with dementia than in those without dementia.



Who should read this booklet?

This booklet is for people living with dementia and their caregivers. It contains information about the most common physical comorbidities of dementia. This easy to read guide provides a definition of the comorbidity, an explanation on how it is linked to dementia, and practical recommendations for managing the comorbidity.

1

Epilepsy

- **People with dementia have a 6x increased risk of having a seizure**
- **Between 5 – 10% of people with dementia are likely to have one seizure**
- **Seizures may occur in up to 25% of people with Alzheimer’s disease**
- **Seizures are more common in people with vascular dementia (vascular dementia is frequently seen following a stroke, due to impaired blood flow to the brain.)**

Why do people living with dementia experience seizures?

Epileptic seizures are defined as brief, unprovoked disturbances of consciousness, behaviour, motor function, or sensation and are known to occur more frequently in older people. However, the likelihood of seizures in people living with dementia is further increased compared to the general older population, and it has been suggested that many of these, particularly partial seizures, are not detected and remain undiagnosed. One possible cause is the interruption of electrical signals within the brain due to changes caused by dementia.

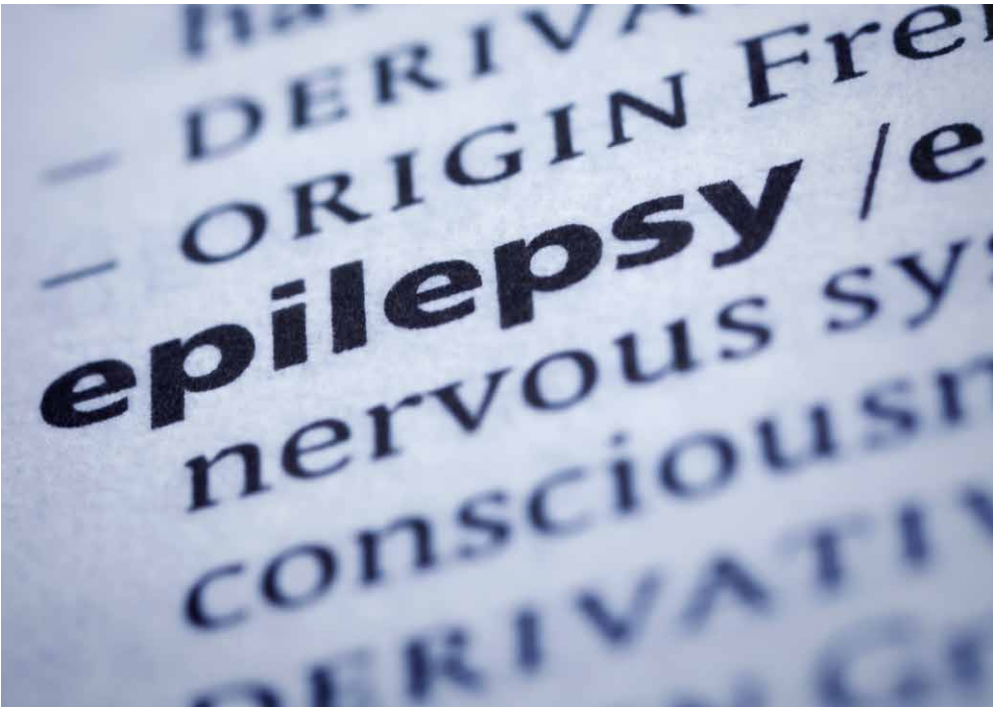
Studies suggest that the younger onset dementia group aged 50-59 have an increased chance of seizures.

Recommendations

- Consider the possibility of seizures if people living with dementia report the occurrence of falls, fainting, or moments of unresponsiveness to your doctor.



- Be aware that seizures may be unusual and difficult to detect.
- If seizures are suspected, visit your doctor to exclude other possible causes for new onset seizures.
- If two or more suspected seizures have occurred, see your doctor as a trial of anticonvulsant medication such as carbamazepine, valproate, gabapentin, or lamotrigine may be recommended.



2

Delirium

- **People living with dementia have a 5-fold increased risk of developing delirium compared to people without dementia**
- **Delirium can occur in 22% – 89% of older people**
- **Delirium can persist for months and can result in permanent memory impairment.**
- **75% of delirium cases occur in people with dementia**



Why are people living with dementia at a higher risk of delirium?

Delirium is a condition of acute confusion which presents with rapid onset of altered level of consciousness, disturbances in attention, orientation, memory, thinking, perception, and behaviour, and a fluctuating course. Signs of delirium include being easily distracted, disorganised speech, periods of altered perception, restlessness, agitation alternating with sleepiness, and showing clear changes in cognitive function over the course of a day.

There are likely to be similar underlying mechanisms for dementia and delirium including impaired sending and receiving of signals in the brain.

Delirium is an acute medical illness

Dementia is the strongest risk factor for the occurrence of delirium, and people living with dementia have a five-fold increased risk.



Recommendations

- Visit your doctor or local emergency department if there is sudden onset of confusion.
- Treating the cause of the delirium such as infections or fluid imbalance, and avoiding the use of physical restraints improves recovery in hospitalised people with dementia.



- Some medications can also increase the risk of delirium.
- Management in a specialised hospital ward environment with staff trained in the management of patients with delirium improves treatment outcomes.
- Delirium can also be treated with short term use of medication.

3

Falls

- Falls occur at least once a year in approximately 70-80% of people with dementia.
- Fractures in people with dementia occur 3x more than the rest of the population
- Hip fractures are 3x higher in people with dementia and these people are also 3x more likely to die within the first 6 months of the injury.



- People with dementia
- People without dementia

Why do people living with dementia experience falls?

Falls are a major health issue in older people. A fall can lead to a downward spiral of immobility, reduced confidence and incapacity which may result in early institutionalization and death. Studies have shown that dementia is associated with an increased risk of falls which is twice that of cognitively normal older people.

Falls refer to losing balance and coming to rest on the ground. The increased rate of falls may be due to the presence of postural instability, impaired executive function, and impaired visuospatial skills. They can occur due to the use of psychotropic drugs which are drugs that specifically change a person's mood or behaviour.

They can also occur due to orthostatic hypotension. When a person moves from a sitting or resting position to a standing position too quickly, the person can experience a significant drop in blood pressure. This can result in fainting, or falls.



Recommendations

There are no interventions proven to prevent falls specifically in people with dementia, but you can consider the following:

- Ask your doctor to review all medications.
- Review and treat postural hypotension.
- Visit your ophthalmologist to correct visual impairments.
- Exercise, particularly strength and balance training.
- Occupational therapy home hazard assessment.



4

Weight loss and nutritional disorders

- People with Alzheimer's disease have been known to lose up to 10% of their body weight over the course of the disease.
- This weight loss may occur up to 20 years before the appearance of dementia symptoms, despite an adequate diet.

Weight before Alzheimer's disease



Weight loss due to Alzheimer's disease



Why do people living with dementia experience weight loss and malnutrition?

Weight loss accompanied by malnutrition is one of the major signs of Alzheimer's disease and is also seen in other types of dementia. Even at an early stage in the disease process, weight changes may become apparent, and weight loss may even occur before the diagnosis of dementia. Weight loss is recognised as a significant comorbidity of dementia, and research has shown that malnutrition can increase disease progression and death, as a loss of muscle mass leads to reduced overall function resulting in an increase in falls, fractures, pressure ulcers and infections.

Other symptoms such as an increased tendency for distraction, anxiety, and agitation, especially with constant pacing, also have a significant impact on eating. Mouth discomfort including a dry mouth, ill-fitting dentures and gum disease leads to problems with eating.



Recommendations

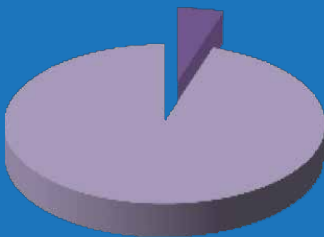
- Record body weight monthly and observe progress.
- Increase oral fluids.
- Use artificial saliva to relieve a dry mouth.
- To improve food intake, consider providing favourite foods and finger foods.
- Give oral supplements 2 hours before meals.
- Visit a dietician for individualised meal plans and advice.



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Incontinence

- **Dementia is associated with a 3-fold increase in incontinence**
- **Frequency increases with age**
- **Faecal incontinence is estimated to occur in 2%-5% of the normal older population and may be considerably higher in the population of older people with dementia.**



■ Faecal incontinence
■ No faecal incontinence

Why do people living with dementia experience incontinence?

Urinary and faecal incontinence refers to the inability to respond appropriately when the bladder and/or bowel is full.

Incontinence can occur earlier in persons with vascular dementia or fronto-temporal dementia than in Alzheimer's disease.

Urinary and faecal incontinence in older people can cause great distress and lead to social isolation. Changes in bladder and bowel function are common in the older population and are due to a combination of disease, medication, and functional decline. Incontinence in people with dementia is a combination of normal ageing and impairments in memory and function.

Some medications can worsen incontinence. Delirium, disorientation and decreased levels of consciousness can lead to incontinence.



Recommendations

- Ask your doctor to review all medication which could cause incontinence.
- Consider an occupational therapy home visit for grab rails and other equipment in the toilet.
- Consider using contrasting paint on the toilet door, contrasting toilet seat and adequate lighting.
- Ensure appropriate clothing with ease of access, e.g. using elasticised waistbands and Velcro closures.
- If pads are used, ensure that they are easy to pull down so that toileting can be encouraged.
- Follow a prompted toileting program with a fixed timing schedule.
- Look for clues of a full bladder – including restlessness, pacing, and pulling at pants.



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Sleep disturbance

- Up to 50% of people with dementia have reported sleeping difficulties
- In all types of dementia, studies indicate that between 25% and 50% of people experience sleep disturbance



- Reports of sleeping difficulty with dementia
- No sleeping difficulty reported

Why do some people living with dementia experience sleep disturbance?

Age-related changes in sleep patterns are well known in the older adult population. Changes occur in several areas, with increased time taken to fall asleep, more awakenings, and more time spent in the lighter stages of sleep. In dementia, and particularly in Alzheimer's disease, there is reduced sleep efficiency and an increase in the number of awakenings. The ability to distinguish night from day may be lost as the disease progresses.

Disrupted sleep patterns have a significant impact on the carer's quality of life, with chronic sleep deprivation playing a key role in the decision to institutionalise the person with dementia.





Recommendations

Sleep can be improved by ensuring that:

- The room is dark at night.
- The avoidance of caffeine after 2:30 pm.
- Discourage daytime napping.
- Increased exercise with daily walks.
- Increased exposure to natural light during the day

Treatment with non-pharmaceutical measures (as mentioned above) should be tried first before using medication which may cause other unwanted side effects.



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Visual disturbance

Symptoms could be some or all of the following:

- Blurred and distorted vision
- Difficulty in reading and writing
- Issues with depth perception
- Inability to recognize known objects
- Reduced sensitivity to low light



Why are people living with dementia at a higher risk of visual dysfunction?

Visual dysfunction refers to restrictions in visual function, which occurs in Alzheimer's disease and many of the other dementias. The disease causes changes in the eye and the part of the brain which processes vision.

Some types of visual dysfunction in people living with dementia are:

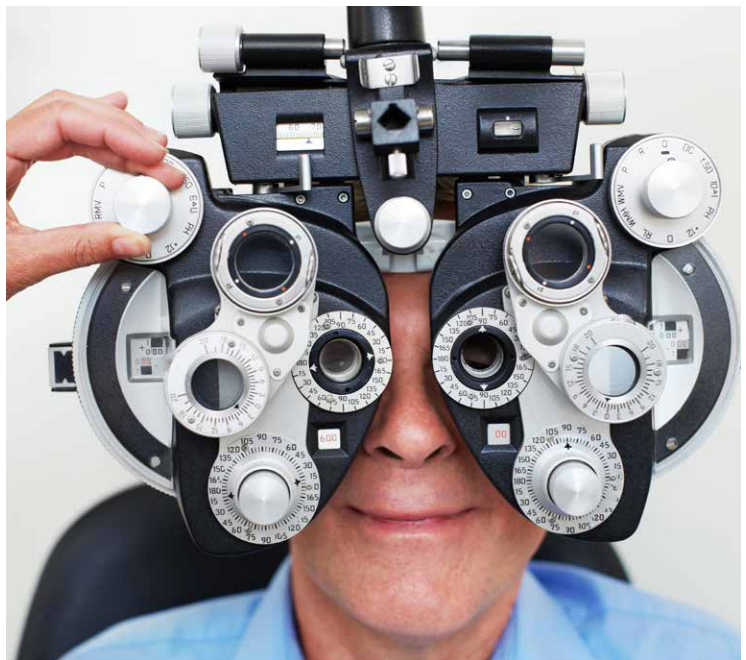
- Decreased contrast sensitivity which results in the inability to distinguish objects from their background.
- Decreased visual acuity, which is the inability to see objects clearly.
- A partial loss of visual field can occur in people with dementia.
- Visuospatial difficulties may cause a number of problems with activities of daily living, including difficulty dressing, miss-reaching for objects, bumping into objects, misjudging steps or uneven surfaces, losing one's way in a familiar environment, and falling.



Spectacles may improve vision however, surgery is also an option depending on the condition.

Recommendations

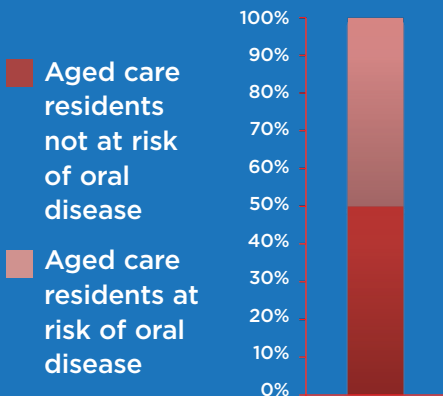
- Be aware that visual impairments can arise due to the onset of dementia.
- Visual acuity and contrast sensitivity may be improved by the correction of conditions such as cataracts and making environmental changes such as improved lighting and the use of high contrast markers.
- Visit an optometrist or ophthalmologist for an assessment of intraocular pressure, refractive errors and the presence of cataracts.
- Establish a vision management plan including the frequency of follow up visits.



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Oral Disease

- More common in people with dementia than those without dementia
- Worldwide studies report an increase in the amount of poor oral hygiene cases in people with dementia.
- Studies indicate that up to 50% of older people in residential aged care facilities appear to be at risk of oral disease and have high levels of dental caries and plaque accumulation



Why do some people living with dementia experience oral disease?

Recent advances in preventive dentistry and the retention of natural teeth into older age mean that more people will require dental attention as they age. As a large proportion of these older people will have dementia, it is important to establish good oral hygiene practices and dental care for people living with dementia.

People with dementia are likely to have fewer natural teeth, increased plaque accumulation and dry mouth.

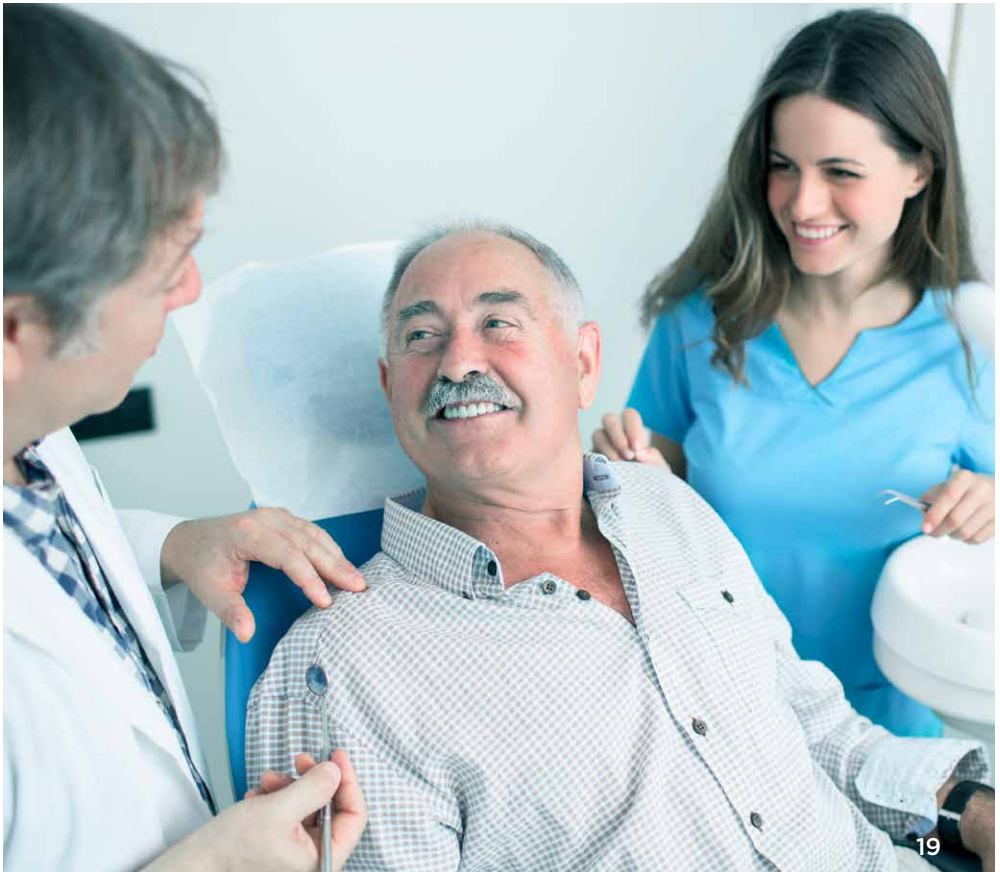
Common symptoms and signs of oral disease are:

- Refusing to eat or drink
- Restlessness and agitation
- Drooling and spitting
- Bleeding from the gums, tongue or cheeks
- Refusing tooth brushing or the use of mouthwashes
- Refusing to wear previously worn dentures
- Bad breath



Recommendations

- Brush teeth twice a day.
- People with early dementia should have a full assessment of their dental health because they may not be able to describe their symptoms or tolerate treatment in later stages of dementia.
- Drink water to avoid a dry mouth.
- Use mouthwash or gel if unable to brush the person's teeth due to increased resistance.

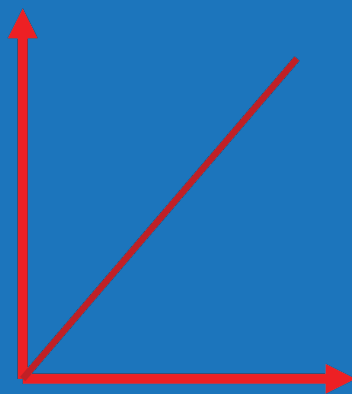


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Frailty

- There are more cases of dementia in frail older people than in non-frail older people
- Frailty increases with age and is more common in women
- Studies indicate that people who have both a cognitive impairment AND a slow walking speed were 5 times more likely to develop dementia.

Frailty



Age

Why do people living with dementia experience frailty?

Frailty is a state of reduced physiological reserve resulting in poor physical function. Frailty increases an individual's risk of functional dependence, institutionalisation, and death. No single process has been identified to explain frailty, but it is known that frailty increases with age and is more common in women.

Features of frailty include:

- Weight loss
- Decreased muscle strength
- Slow walking speed
- Loss of balance

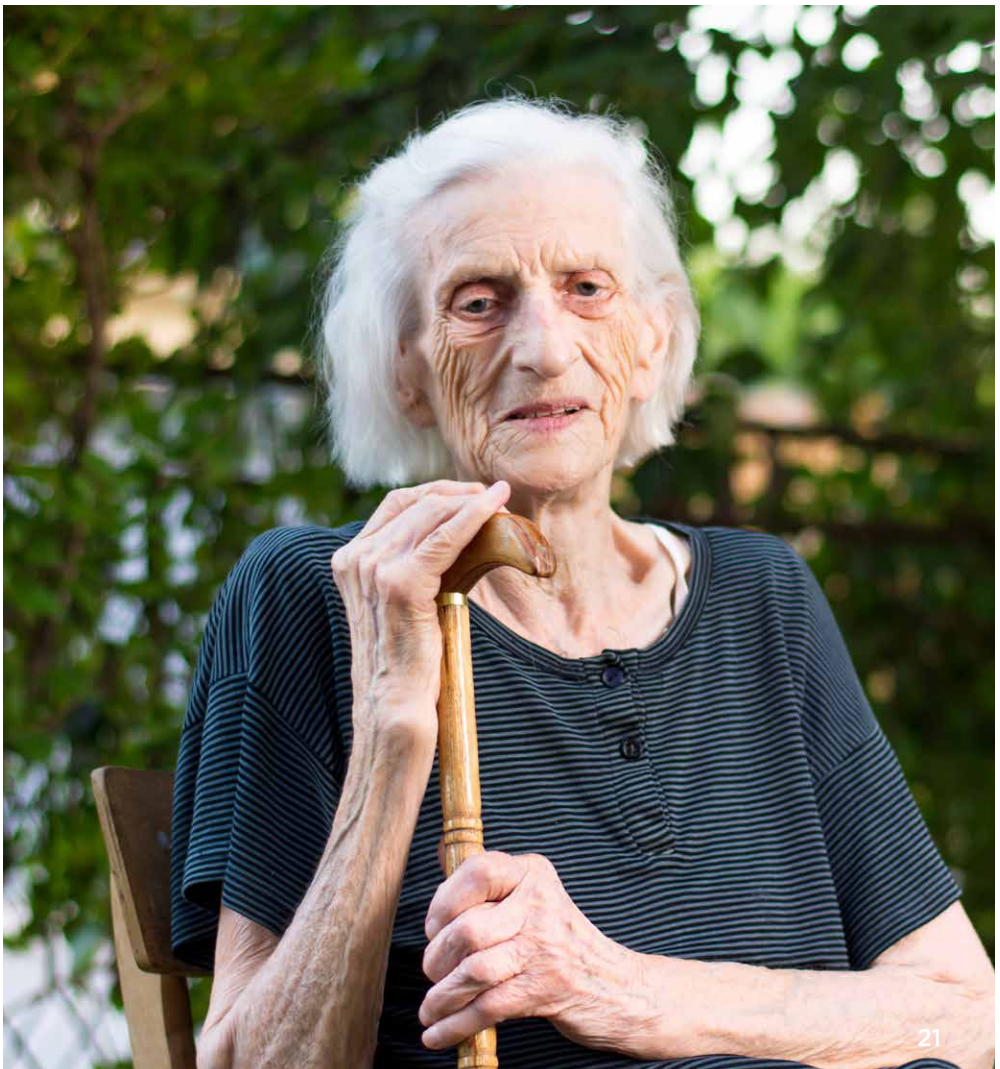
There is evidence to suggest that the above features can be caused by dementia but they can also occur many years before the onset of dementia.

Recommendations

- Consider regular exercise such as walking, resistance training, strength training and exercises for balance.



- If weight loss and poor appetite are factors that cause frailty in people with dementia a visit to a dietician may help.
- Focusing on nutritional requirements, including supplements may be appropriate.



What to expect at each stage of dementia

Very Mild

You may notice minor problems or start misplacing things around the home: this could be dismissed as normal age related memory loss. Memory tests are unlikely to detect the disease.

Mild Decline (Mild Cognitive Impairment)

Friends and family members may begin to notice memory and cognitive problems. You may notice problems with finding the right words during a conversation, remembering people's names, planning and organising activities such as eating regular meals and cleaning your teeth.

Performance on memory and cognitive tests is affected and your doctor will be able to detect impaired cognitive function. You may be offered medication by your doctor.

Moderate Decline

Further decline is noticed by friends and family, you may or may not be aware of your memory problems. Difficulty with simple maths can result in an inability to manage finances and pay bills. Expect increasing short term memory loss and loss of details about your past life.

Moderately Severe Decline

Significant confusion may be present most of the day, with an inability to recall simple details about yourself such as your own phone number or where you live. Some people will have difficulty dressing appropriately but can still bathe and toilet independently. Family members remain familiar and some details about your past, especially childhood can be recalled.

Severe Decline

Constant supervision and support services may be required to provide continued community care. As confusion or unawareness of the surrounding environment increases, major personality changes and difficult behaviours may appear at this time. Assistance with activities of daily living such as toileting and bathing is required. You may be unable to recognise faces except closest friends and family. Wandering and loss of bowel and bladder control are likely to occur.

Very Severe Decline

Because dementia is a terminal illness, expect total loss of the ability to respond to the environment or communicate. While some may still be able to utter words and phrases, most have no insight and full assistance is required with daily activities. In the final stages of dementia the ability to swallow is lost.

Ambulance, Fire, Police.....000
National Dementia Helpline 1800 100 500
Dementia Behaviour Advisory Services (DBMAS)1800 699 799
Lifeline.....13 11 14



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