



Nutrition issues in Dementia

Dementia is a broad term used to describe a group of degenerative brain disorders that are marked by a decline in an individual's cognition, significant enough to impact their ability to function and live independently. There is strong evidence that lifestyle factors, including diet, may play an important role in the development of dementia.¹ In 2018, there are approximately 425,416 Australians living with dementia, it is the second highest cause of death in the country.² It is the leading cause of disability in older Australians. In fact, it is projected that by 2060, the cost of dementia to the health care system will exceed that of any other condition.² Life expectancy after diagnosis varies significantly between individuals, but is on average six years.²

There are numerous types of dementia and the type and severity of symptoms varies, however the gradual onset and nature of the disease is irreversible. The most common types of dementia are Alzheimer's disease, vascular dementia, Lewy Body disease, frontotemporal lobar dementia, alcohol-related dementia and AIDS-related dementia². It results in gradual deterioration in cognition and the ability to perform everyday tasks. It also impacts on mental health including mood and emotions, and often leads to depression.² Changes in people's behaviour are often problematic, especially as individuals lose their independence and self-control.³

Nutritional issues in dementia

During the early stages of dementia a person will generally still have the ability to continue to eat normally. Dementia tends to exist in progressive stages and as the illness progresses, additional support and strategies may be required. In the end stages it's important to adopt a palliative care approach.

Throughout the illness, nutrition remains a vital component to maintaining both physical and psychological wellbeing. Nutrition support needs to be tailored to the progression of the illness and should focus on maintaining a variety of healthy food choices and adequate oral intake.

Weight loss is a prominent clinical feature of dementia and can often precede the diagnosis.⁴ Continued loss of weight can impact not only ongoing cognitive capacity, but also physical capacity; so nutritional intervention to minimise further weight loss is essential.⁵

Dementia-related brain atrophy may impact regions of the brain involved in appetite regulation and eating behaviour, thus monitoring of weight change is highly recommended in people with dementia. Feeding assistance can also help to prevent malnutrition and muscle loss which increases frailty, skin fragility, falls, likelihood of hospitalisation and mortality.⁶ Common issues linked with dementia as it progresses to the middle and later stages include changes in movement, reduced concentration, difficulties obtaining and preparing food, problems eating and drinking independently, or the limited availability of dietary assistance when needed.⁷ These ultimately contribute to suboptimal food intake and/or increased nutritional requirements, leading to malnutrition. Malnutrition has a significant impact on the progression of disease and clinical prognosis, both cognitively and functionally, as well increasing the risk of morbidity, hospitalisation, institutionalisation and finally mortality.⁸

Although the symptoms of dementia are varied and progressive, implications on nutrition are displayed in table 1.³⁻⁷ Feeding assistance can reduce the impact of many of these problems and use of nutritional supplementation is often of benefit, but advanced eating and swallowing problems must be considered in the context of holistic palliative end-of-life care as necessary.

Table 1. Symptoms of dementia and nutrition implications

Symptoms	Nutrition Implications
Memory loss	Affects all food related behaviours such as food purchase, meal preparation, remembering to eat or drink, poor food and drink recognition.
Communication decline	Affects ability to communicate changes in food and flavour preferences, changes in eating habits and mealtimes, and therefore the amount of food eaten.
Ageusia	Sensory or perceptive loss, which may affect vision and smell, hampering recognition of cutlery, food items and decreasing appetite.
Limited attention span	Impacts upon the person's ability to sit still for a length of time to eat, easily distracted during mealtime.
Increased movement	Including compulsive walking, increases energy requirements.
Behavioural issues	Spitting out food/medications, refusing diet and fluids, violence towards staff or carers trying to assist with feeding can decrease overall oral intake, pocketing or hoarding food.
Apraxia	Loss of the ability to plan and carry out movement such as food preparation or eating with utensils.
Neurological disorders	Most common in the later stages of dementia and may adversely affect chewing and swallowing thereby increasing the risk of dysphagia.
Progressive increase in apathy	Reduced drive to eat.
Aversive food behaviours	Including refusal to open mouth, spitting food out, inappropriate coordination of oral neuro-musculature (e.g. chewing without swallowing, drooling) and eating unusual items (pica).
Progressive oral musculature and coordination problems	Affecting swallowing and thereby reducing intake.

Flexible approach & environmental set-up

- Small frequent meals - ensure 5-6 small meals each day
- Offer small finger foods and fluids throughout the day (within food safety regulations), ensuring these are visible and easy to access
- Keep to familiar recipes to avoid rejection of 'unknown' foods
- Help your client maintain as much independence as possible – make sure they are positioned properly and with appropriate set up of utensil to assist. Assistive and/or adaptable tableware may be used such as spoons with larger handles for example.^{9,10} Consider referring to an occupational therapist to assist with appropriate equipment
- Ensure the mealtime environment is pleasurable, and as free of distraction as possible to maximise the chance those easily distracted will eat. Although a quiet environment is favourable, familiar background music can help increase the overall food intake¹⁰
- Don't clutter the meal table with decorations or too many items, as it can increase confusion and distraction and thus reduce intake
- Where possible, make mealtime flexible to accommodate changes in mealtime preferences

During the meal

- Offer prompts to begin meal and regular prompts and encouragements to eat and drink¹²
- Give guidance with cutlery and hand to mouth movement as necessary, or provide foods that can be eaten without cutlery¹²
- Use a client's name and make eye contact when talking to them. If appropriate get a family member or carer to eat with the client so they can copy how it's done
- Consider liaising with nursing staff or family/carers to assist with meal time set up and feeding assistance

- Offering one type of food at a time rather than mixing foods in each spoonful can help, as some clients are confused by varying textures in a meal¹³
- Add extra flavour (including salt, sugar, herbs, sauces etc.) to meals where necessary and appropriate, as taste acuity can be diminished and affect acceptance of even familiar foods
- Don't rush your client to finish their meals, as they may feel pressured and leave food unfinished. It can take up to an hour to assist someone with dementia to complete a meal
- If clients are forgetting to chew or chewing without swallowing, a light touch on the lips to encourage chewing, mimicking chewing and gently stroking the client's throat (as long as acceptable to the client and appropriate) can help

Dysphagia in dementia

Dysphagia is common in individuals with dementia. Swallowing difficulties can result in a variety of complications including chest infections from aspiration and compromised nutrition. Aspiration refers to the inhalation of food or fluid into the chest (or lower airways), thus increasing an individual's risk of developing a chest infection. Changes to a person's swallowing may be acute or chronic and may be caused by: acute illness (e.g. urinary tract infection), decline in consciousness, alertness or increased fatigue, acute neurological event (e.g. stroke), progression of dementia, delirium, or a throat stricture or tumour.

Approaches to manage dysphagia include safe swallow strategies, and diet (eg. texture modified) or fluid modifications to minimise the risk of aspiration. Change in normal meal time behaviours may occur including impulsivity and agitation, e.g. excessive chewing, spitting food out, refusal of food or fluids especially previously

preferred foods and impulsivity at meal times. This may be more appropriately referred to an Occupational Therapist for management, however dietitians' may do some meal time behaviour strategies.

Speech pathologists are able to assess the extent of impairment in an individual's swallow. They are able to provide individualised advice and education to the client, carers and their family. The following are signs that a person may be at increased risk of aspiration and should be referred to a speech pathologist:

- Coughing or throat clearing before, during or after having something to eat or drink
- Drooling, food pooling in mouth after eating
- Prolonged chewing
- Fear of swallowing
- Pain or discomfort whilst swallowing
- Wet, gurgly voice, loss of voice after swallowing
- Difficulty swallowing medications
- The person has a history of chest infections
- Holding food in the oral cavity (e.g. forgetting to swallow food)

Enteral nutrition in dementia

For those who are unable to consume adequate amounts of nutrition orally, enteral and parenteral nutrition are an option. However, these modes of feeding can potentially be invasive interventions and result in complications which therefore must be weighed against the potential benefits of improved nutrition on clinical outcome.¹⁴

Consideration should be given to the stage of dementia and medical indication weighed against clinical benefits and individual patient wishes, values and goals of care. An open discussion must be had with the patient, their family or next of kin and with the multidisciplinary team to determine goals of treatment.

There is insufficient evidence for the efficacy of enteral tube feeding in patients with advanced dementia on increased survival, improved quality of life and better nutrition. In these cases, a palliative approach may be more appropriate.¹⁵

Other members of the multidisciplinary team

In addition to providing counselling/therapy to the individual regarding health changes, social workers, psychologists and physiotherapists can support families and carers by connecting them with available services and assisting with 'future planning'. An occupational therapist can prescribe equipment if the individual has difficulty completing activities of daily living and provide meal time assistance, while physiotherapists can assist if the individual's mobility declines or is at increased risk of a fall.

Further reading & information

- DAA Aged Care and Rehabilitation Interest Group resources
- Alzheimer's Australia. Fact sheets on nutrition and statistics, <http://www.fightdementia.org.au>, or ordered by phoning 1800 100 500
- Alzheimer's Society (2013) Nutrition and eating. <http://www.alzheimers.org.uk/site/scripts/documents.php?categoryID=200367>
- Alzheimer's Disease and Dementia Resources. (2013) <https://www.dhs.wisconsin.gov/aging/index.htm>
- Mental Health Disorders - Dementia: Toolkit (2013) <http://www.pennnutrition.com/KnowledgePathway.aspx?kpid=3527&tkid=20320&secid=20401>
- Alzheimer Society of Toronto. Food For Thought, Practical Tips about eating, feeding and nutrition for people with Alzheimer Disease (2002). <http://www.alzheimertoronto.org/>
- Fact sheet – Alzheimers statistics. *Alzheimer's Australia*. <http://www.fightdementia.org.au>
- MHANDi Section 5.0: [Links to Mental Health Resources](#)
- MHANDi Section 3.0: [Working with Carers](#)
- PEN Knowledge Pathways: Mental Health Disorders – Dementia. Last updated 2012

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14. D. Volkert et al. ESPEN guidelines on nutrition in dementia. *Clin Nutr*. 2015;34:1052-73
15. Sampson EL, Candy B, Jones L. Enteral tube feeding for older people with advanced dementia. *Cochrane Database Syst Rev*. 2009;15(2):CD007209.