

**PERSPECTIVE**

# Dietary recommendations for patients with dementia

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**Abstract**

With the emergence of support for diet in the maintenance of cognition, clinicians have been justifiably eager to promote diet recommendations for their older patients. But popular diets, such as the Mediterranean diet, Dietary Approaches to Stop Hypertension (DASH), and the Mediterranean-DASH Intervention for Neurodegenerative Delay (MIND), have not been shown to benefit cognition among patients who already have dementia or cognitive decline. In our experience, promoting these restrictive diets can be detrimental to patients with dementia who are already prone to eating disturbance; vulnerable to malnutrition; and, if underweight, demonstrate increased mortality. Moreover, we have seen both patient and caregiver satisfaction negatively affected by dietary modification. Clinicians need to be aware that any dietary recommendations for patients with dementia should be mitigated by the lack of evidence for improvement in cognition, the risks for exacerbating poor nutrition, and the potential for further limiting their quality of life.

**KEYWORDS**

cognition, dementia, diet, nutrition

## 1 | PERSPECTIVES

The patient presented to the behavioral neurology clinic with her usual brightly colored hair and matching tights, but what was most striking was her marked weight loss. Although Mrs. JS was a small woman in her mid-seventies, she had lost 8 pounds since her last clinic visit three months before, down to a weight of 91 pounds. When questioned, she stated that she was trying to eat healthy by adhering to the recommended Mediterranean diet (MedDi) and avoided most meats and carbohydrates. Her husband acknowledged her increasingly restricted diet but raised his hands in frustration. After all, this was the diet recommended to her by her physicians.

This is not the first time we had seen a patient with cognitive decline make drastic changes to their diet. As there is currently no disease-

modifying therapy for any neurodegenerative disorder, health professionals are eager to offer their patients nutritional recommendations that may positively impact cognitive health. Patient after-visit summaries are frequently addended with extensive lists describing foods to limit or avoid. Most popular diets, such as the MedDi, Dietary Approaches to Stop Hypertension (DASH), and the Mediterranean-DASH Intervention for Neurodegenerative Delay (MIND), contain recommendations to decrease intake of meat, saturated fat, and refined sugar.<sup>1</sup>

These recommendations are not entirely unfounded. There is increasing evidence that adherence to a healthy diet may decrease the risk of cognitive decline or dementia, although one review noted that only one half of longitudinal studies and two thirds of cross-sectional studies found any such association.<sup>2</sup> But these

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recommendations are meant for those who do not already have dementia. There is little evidence to suggest, once dementia has been diagnosed, that any dietary changes have any significant impact on progression of the cognitive decline. Because amyloid buildup appears up to 20 years before clinical symptoms,<sup>3</sup> dietary intervention for those who have evident cognitive decline may offer too little, too late.

Providers are understandably eager to give their patients hope but, in our experience, giving patients strict diet recommendations may be confusing; cause anxiety; and, paradoxically, lead to poorer nutrition. We have observed patients cut down on vital sources of protein and fat without sufficiently replacing them with alternatives. Fresh fruits and vegetables are also more expensive than fast food, potentially limiting the options for those on a tight budget.<sup>4</sup>

Individuals with dementia are especially vulnerable to malnutrition due to their increasing age, declining cognition and physical function, and institutionalization.<sup>5</sup> Accelerated weight loss has been associated with mild cognitive impairment or dementia up to 6 years prior to diagnosis.<sup>6</sup> Studies have shown increased mortality in the elderly who are underweight compared to normal weight or even overweight individuals.<sup>7,8</sup> In addition, dementia syndromes may alter food preferences, limiting what patients are willing to eat. One study found eating disturbance in more than 80% of patients with AD,<sup>9</sup> noting a preference for sweet foods and candies and adding flavor to their foods with high-salt foods such as soy sauce. Similar preference for sweet and strongly flavored foods is a criterion for the diagnosis of behavioral variant frontotemporal dementia, and patients with semantic dementia are prone to rigidly eating the same foods or unusual food fads.<sup>10,11</sup> Additionally, depriving these individuals of favored foods while they continue their food preferences may result in specific malnutrition.

Even if dietary changes prove to have significant impact on slowing the rate of progression of dementia, the risk of malnutrition should be considered when any dietary modification is discussed with patients with cognitive impairment. An emphasis on choosing healthy alternatives as opposed to avoiding unhealthy options may help prevent food-related anxiety and malnutrition.

One other important consideration is quality of life. As dementia progresses to more advanced stages, food may be one of the few sources of pleasure that remains. In many cultures, traditional foods are felt to have healing properties and allow the caregiver to feel instrumental in their family member's care.<sup>12,13</sup> In our experience, both patient and caregiver satisfaction may be negatively affected by dietary modification. Especially toward the end of life, when the goal of care becomes palliative, it is important to allow patients their comfort foods.

When Mrs. JS discussed her diet, she kept emphasizing how focused she was on eating only healthy food. When we suggested that the occasional ice cream may do her good, her eyes widened and she looked incredulous. "I guess if the doctors say it's ok then maybe I will." She had gained back the 8 pounds by our next visit and the patient, the spouse, and the doctors were quite satisfied.

## RESEARCH IN CONTEXT

1. Systematic review: While no formal systematic review was done, the authors performed a PubMed search for the terms "diet and dementia" and "diet and cognition" and reviewed all articles from 2015–2019 in major English language journals, in addition to relevant references from those articles. There have been numerous recent publications describing dietary recommendations and interventions and the resulting effects on cognition. These relevant citations are appropriately cited.
2. Interpretation: Our perspective raises the previously unaddressed question of whether dietary interventions should still be pursued once individuals have already developed dementia and urge clinicians to consider the potential risks of dietary changes that may outweigh any benefits.
3. Future directions: The manuscript proposes a framework for the generation of new hypotheses and the conduct of additional studies. Examples include further understanding: (a) the role of healthy diet in progression of dementia, (b) the effect on patient quality of life when dietary changes are made in the setting of dementia, (c) the potential reversibility of cognitive decline with dietary intervention after dementia has been diagnosed.

## Highlights

- While healthy diets have been shown to decrease risk of cognitive decline, these diets have little evidence for improving cognition in those already diagnosed with dementia.
- Individuals with dementia are prone to eating disturbance and are especially vulnerable to malnutrition and, if underweight, have been shown to have increased mortality.
- Both patient and caregiver satisfaction may be negatively affected by dietary modification.
- Dietary recommendations for patients already diagnosed with dementia should be carefully weighed against the risks for malnutrition, potential detriment to quality of life, and noting sparse evidence for any benefit in this population.

## CONFLICTS OF INTEREST

The authors have no conflicts of interest to disclose.

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