

Position of the American Dietetic Association: Individualized Nutrition Approaches for Older Adults in Health Care Communities

ABSTRACT

It is the position of the American Dietetic Association that the quality of life and nutritional status of older adults residing in health care communities can be enhanced by individualization to less-restrictive diets. The American Dietetic Association advocates for registered dietitians to assess and evaluate the need for nutrition interventions tailored to each person's medical condition, needs, desires, and rights. Dietetic technicians, registered, assist registered dietitians in the assessment and implementation of individualized nutrition care. Health care practitioners must assess risks vs benefits of therapeutic diets, especially for older adults. Food is an essential component of quality of life; an unpalatable or unacceptable diet can lead to poor food and fluid intake, resulting in undernutrition and related negative health effects. Including older individuals in decisions about food can increase the desire to eat and improve quality of life. The Practice Paper of the American Dietetic Association: Individualized Nutrition Approaches for Older Adults in Health Care Communities provides guidance to practitioners on implementation of individualized diets and nutrition care.

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POSITION STATEMENT

It is the position of the American Dietetic Association that the quality of life and nutritional status of older adults residing in health care communities can be enhanced by individualization to less-restrictive diets. The American

Dietetic Association advocates for registered dietitians to assess and evaluate the need for nutrition interventions tailored to each person's medical condition, needs, desires, and rights. Dietetic technicians, registered, assist registered dietitians in the assessment and implementation of individualized nutrition care.

HEALTH CARE COMMUNITIES

H health care communities are living environments for persons with chronic conditions, functional limitations, or need for supervision or assistance. Health care communities include assisted living facilities, group homes, short-term rehabilitation facilities, skilled nursing facilities, and hospice facilities. Health care communities differ from acute care facilities in that long-term treatment and lifestyle goals take precedence over short-term clinical goals.

Care for individuals who reside in health care communities must meet two goals: maintain health and preserve quality of life. These goals can compete when it comes to delivery of nutrition care. Food must meet nutrition needs but also enhance quality of life.

Trends in Health Care Communities

America is aging rapidly. By 2030, predictions indicate that the older-than-age-65-years population will increase to approximately 72.1 million, or 19.3% of the population (1). This equates to a remarkable 52% increase since 2007. The number of people aged 85 years or older is projected to increase from 5.5 million in 2007 to 6.6 million in 2020, a 20% increase in the oldest old (2). These increases in the older population will have dramatic effects on the nation's health care system in years to come.

In 2008, approximately 1.6 million (4.1%) of Americans aged 65 years and older lived in institutional settings. This percentage increases with age, ranging from 1.3% for those aged 65 to 74 years, 3.8% for those aged 75 to 84 years, and 15.4% of those older than 85 years of age (1). Residents of nursing facilities are often frail older adults. In 2004, approximately 15% of nursing home residents were dependent on others for eating, and up to 39% were dependent on others for activities of daily living such as bathing and toileting (3). Older adults residing in any health care community are more likely to need assistance with activities of daily living and have cognitive impairment due to Alzheimer's disease or other dementias (1). As a result they are likely to experience physical and social problems that exacerbate poor health and alter food intake.

Health care communities have embraced new philosophies that reflect major paradigm shifts in culture from institutional care to more personalized living in a home-like environment. Improving quality of life and quality of care, allowing choices in daily living, and assisting individuals to make informed health care decisions are all major goals of culture change and person-centered care. Involving individuals in choices about food and dining such as food selections, dining locations, and meal times can help them maintain a sense of dignity, control, and autonomy.

Factors Affecting Nutritional Status

Physiological changes of aging can affect food intake, body composition, and weight. Food intake typically declines even in healthy older adults. This is often referred to as the "anorexia of aging" (4). Decreased appetite can be due to a decrease in olfac-

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tion, taste, and changes in levels of hormones that control satiety and food intake. As appetite diminishes, intake of energy and other nutrients decreases, which can result in weight loss and predispose an individual to increased risk of illness and infection. In addition, chronic disease, including cerebrovascular accidents, Parkinson's disease, cancer, diabetes, and dementia, can contribute to changes in appetite, metabolism, and weight. Older adults can be subject to sarcopenia, a loss of muscle mass associated with aging, and/or cachexia, a loss of weight and muscle mass associated with underlying illness.

Depression, polypharmacy, drug-nutrient interactions, or side effects such as anorexia, nausea, vomiting; sensory loss that affects ability to see, smell, and taste food; and oral or dental changes that affect chewing or swallowing ability can all affect nutritional status.

As a result of the physiological and psychological changes associated with aging, food can be less appealing, and food consumption may decline as a result. Restrictive diets may exacerbate poor food intake leading to unintended weight loss and undernutrition.

The Risk for Undernutrition in Health Care Communities

Due to variations in definitions between undernutrition and malnutrition, determining the scope of the problem in health care communities is difficult. According to a recent literature review that used the mini-nutrition assessment as a parameter, malnutrition was observed in 2% to 38% of institutionalized older adults, and 37% to 62% were considered at risk (5). Consequences of undernutrition include increased mortality, loss of strength, depression, lethargy, immune dysfunction, pressure ulcers, delayed recovery from illness, increased chance of hospital admission, and poor wound healing (6). Older adults are at higher risk for pressure ulcer development due to age, skin frailty, unintended weight loss, and other factors. Although pressure ulcers have multiple causes, poor nutritional status is a contributing factor and is an important aspect of prevention (7). Since unintended weight loss can reflect poor intake or changes in

metabolism of food and nutrients, it may be the best indicator of undernutrition (4).

RISKS VS BENEFITS OF LEAST-RESTRICTIVE DIETS

A priority of nutrition care for most frail older adults in health care communities is to consume enough food to prevent unintended weight loss and undernutrition. Although therapeutic diets are designed to improve health, they can negatively affect the variety and flavor of the food offered. Individuals may find restrictive diets unpalatable, resulting in reducing the pleasure of eating, decreased food intake, unintended weight loss, and undernutrition—the very maladies health care practitioners are trying to prevent. In contrast, more liberal diets are associated with increased food and beverage intake (8). For many older adults residing in health care communities, the benefits of less-restrictive diets outweigh the risks. When considering a therapeutic diet prescription, a health care practitioner should ask: Is a restrictive therapeutic diet necessary? Will it offer enough benefits to justify its use?

DISEASE-SPECIFIC CONDITIONS AND RESTRICTED DIETS

Diabetes Mellitus

The risk of developing diabetes increases with age. By one 2002 estimate, 26.4% of all persons admitted to nursing homes had a diagnosis of type 2 diabetes (9). Although there are numerous evidence-based guidelines for treating diabetes, few of the data supporting interventions were obtained from research studies in older persons (10).

Blood glucose can be affected by factors other than diet, including infections, obesity, diseases of the pancreas, endocrine disease, genetic defects of beta cells or insulin action, and common medications (9). Since 2000, the American Diabetes Association has held the position that sucrose-containing foods can be substituted for other carbohydrates in the meal plan or covered with insulin-lowering medications (11). There is no evidence to support prescribing diets such as no concentrated sweets or no sugar added for older adults living in health care communities, and these

restricted diets are no longer considered appropriate (11). Most experts agree that using medication rather than dietary changes to control blood glucose, blood lipid levels, and blood pressure can enhance the joy of eating and reduce the risk of malnutrition for older adults in health care communities (11).

According to the American Diabetes Association position statement on nutrition recommendations and interventions for diabetes, elderly nursing home residents with diabetes can receive a regular diet that is consistent in the amount and timing of carbohydrates, along with proper medication to control blood glucose levels (11). The nutrition care plan should include education about appropriate food choices for managing diabetes.

Cardiovascular Disease

The use of low-fat, low-cholesterol diet prescriptions for older adults in health care communities is controversial. There are little data available to support the effects of lipid-lowering therapy on adults older than 75 years of age (12). However, the American Heart Association suggests that risks related to elevated blood lipid levels do not diminish with age and recommends treatment be considered for all older adults (12). Health care providers should be aware of cardiac problems while balancing an individual's condition, prognosis, and the threat of undernutrition when making treatment decisions.

The relationship between congestive heart failure, blood pressure, and sodium intake in the elderly population has not been well studied. The American Heart Association recommends that older adults attempt to control blood pressure through diet and lifestyle changes (13) and recommends a sodium intake of 2 to 3 g/day for patients with congestive heart failure (14). However, a randomized trial of adults aged 55 to 83 years found that a normal-sodium diet improved congestive heart failure outcomes (15). A liberal approach to sodium in diets may be needed to maintain adequate nutritional status, especially in frail older adults (16).

The Dietary Approaches to Stop Hypertension (DASH) eating pattern is known to reduce blood pressure and may also reduce rates of heart failure

(17). The DASH diet is low in sodium and saturated fat but also high in calcium, magnesium, and potassium.

The nutrition care plan for older adults with cardiac disease should focus on maintaining blood pressure and blood lipid levels while preserving eating pleasure and quality of life. Using menus that work toward the objectives of the Dietary Guidelines for Americans and/or the DASH diet can help achieve those goals. Physical activity that is based on each individual's abilities can also help facilitate cardiac health (14).

Chronic Kidney Disease

Older adults with chronic kidney disease often have increased protein catabolism and uremia (18). Anorexia, nausea, and vomiting are common side effects of uremia (19). Undernutrition is especially difficult to define in this population because changes in body weight can be caused by shifts in fluid balance. Most experts agree that patients receiving dialysis lose protein with each treatment and, therefore, require an increase in dietary protein (20). Individualizing the diet prescription for chronic kidney disease patients receiving dialysis may increase total energy and protein intake and help prevent undernutrition. Patients in earlier stages of chronic kidney disease may need an individualized diet if food intake is poor or weight loss is detected (20).

Obesity and Desired Weight Loss

In 2005-2006, 37% of individuals aged 65 to 74 years and 24% of those aged 75 years and older were classified as obese (3). Evidence suggests that weight loss in obese older adults improves physical functioning and quality of life and reduces medical complications (21). However, some experts suggest that adverse health outcomes of obesity and benefits of weight loss in older adults have not been proven (22). Weight loss in obese older adults results in both a loss of fat mass and lean body mass that could exacerbate sarcopenia (22,23), thus contributing to functional decline (24). If an individual desires weight loss, the care plan should provide adequate energy and protein along with regular physical activity to help preserve lean body mass (21). In most cases, a res-

ident's usual body weight before decline or admission, rather than ideal body weight, is the most relevant basis for weight-related interventions. Caution should be applied in determining which older adults are appropriate for weight loss programs to avoid undernutrition and complications such as pressure ulcers.

Alzheimer's Disease and Dementia

The prevalence of Alzheimer's disease in individuals aged 85 years is between 24% and 33% in developed countries (25). Unintended weight loss is common in people with Alzheimer's disease and is thought to be part of the disease process (26). Meal intake is often poor, usually due to cognitive decline. The goal of nutrition care for older adults with Alzheimer's disease or other forms of dementia is to develop an individualized diet that considers food preferences, utilizes nutrient-dense foods, and offers feeding assistance as needed to achieve the individual's goals.

Palliative Care

Supportive care is the most realistic goal for a dying patient. Decisions about care should be made with the patient and/or family. Accommodating individual food and fluid preferences is essential for acceptance and consumption (27). The nutrition care plan should allow provision of any food and beverage that the individual will safely consume, regardless of medical diagnosis. If texture modifications are recommended, education may be needed on the risks vs benefits of consuming certain foods. More information on this topic is available in the Position of the American Dietetic Association: Ethical and legal issues in nutrition, hydration, and feeding (28).

COMPLIANCE WITH FEDERAL LONG-TERM CARE REGULATIONS

The State Operations Manual of the Centers for Medicare and Medicaid Services—Appendix PP-Guidance to Surveyors for Long Term Care Facilities—states, “A facility must care for its residents in a manner and in an environment that promotes maintenance or enhancement of each resident's quality of life” (29). Facilities

must respect ethnic, cultural, religious, and other food and dining preferences, and protect and promote the rights of each resident (28). Providing a therapeutic diet against a resident's wishes is a violation of resident rights (Note: proper counseling should be provided to ensure the resident understands the risks vs benefits of not following a therapeutic diet.) In an effort to enhance quality of life, respect resident rights, and promote person-centered care, many facilities are enhancing their dining programs to include creative ideas that demonstrate improvements in dining, food intake, and/or quality of life (8).

The State Operations Manual (27) also addresses nutrition and recognizes the potential benefits of liberalized diets. According to the manual, “it is often beneficial to minimize restrictions consistent with a resident's condition, prognosis, and choices.” Providing a more liberal diet may help prevent an F-325 citation (nutrition and unintended weight loss) because the intent is to ensure that residents maintain acceptable parameters of nutritional status (28).

THE ROLE OF REGISTERED DIETITIANS (RDs) AND DIETETIC TECHNICIANS, REGISTERED

RDs should utilize the Nutrition Care Process and develop an individualized care plan that is consistent with needs based on nutritional status, medical condition and personal preferences. RDs should assess nutritional status, determine a nutrition diagnosis, plan appropriate nutrition interventions, and monitor and evaluate outcomes. Dietetic technicians, registered, support RDs in the Nutrition Care Process and may complete parts of the process as assigned by an RD (2). Collaboration between the patient, family, and members of the health care team will help achieve these goals. RDs and dietetic technicians, registered, should be actively involved in developing facility policies and procedures and educating staff, residents, and family members on the benefits of a less-restrictive diet based on each individual's needs.

CONCLUSIONS

Undernutrition, weight loss, poor food intake, satisfaction, and acceptance are serious issues in health care com-

munities. Despite the growing body of evidence discouraging the use of therapeutic diets in older adults, these diets are still regularly prescribed. Research has not demonstrated benefits of restricting sodium, cholesterol, fat, and/or carbohydrate in older adults (9). Additional research is needed to help practitioners make evidence-based decisions about nutrition care of older adults in health care communities.

RDs should evaluate each individual and assess the risks vs the benefits of a therapeutic diet. Maximizing meal intake can help prevent undernutrition and unintended weight loss, which can lead to additional health complications. Individualizing to the least-restrictive diet can enhance nutritional status and improve quality of life, particularly for an older adult with poor food/fluid intake or unintended weight loss.

References

1. Profile of older Americans. US Department of Health and Human Services, Administration on Aging Web site. http://www.aoa.gov/aoaroot/aging_statistics/Profile/index.aspx. Accessed May 5, 2010.
2. American Dietetic Association Quality Management Committee. American Dietetic Association revised 2008 Standards of Practice for registered dietitians in nutrition care; Standards of Professional Performance for registered dietitians; Standards of Practice for dietetic technicians, registered, in nutrition care; and Standards of Professional Performance for dietetic technicians, registered. *J Am Diet Assoc.* 2008;108:1538-1542.
3. Older Americans 2008: Key indicators of well-being. Published March 2008. Federal Interagency Forum on Aging Related Statistics Web site. http://www.agingstats.gov/agingstatsdotnet/Main_Site/Data/2008_Documents/Health_Care.aspx. Accessed October 1, 2009.
4. Morley JI, Thomas DR, Kamel HK. Nutritional deficiencies in long-term care. *Ann Long Term Care.* 2004;2(suppl):S1-S5.
5. Pauly L, Stehle P, Volkert D. Nutritional situation of elderly nursing home residents. *Z Gerontol Geriatr.* 2007;40:3-12.
6. Challa S, Sharkey JR, Chen M, Phillips CD. Association of resident, facility, and geographic characteristics with chronic undernutrition in a nationally represented sample of older residents in U.S. nursing homes. *J Nutr Health Aging.* 2007;11:179-184.
7. Dornier B, Posthauer ME, Thomas D. The role of nutrition in pressure ulcer prevention and treatment: National Pressure Ulcer Advisory Panel white paper. *Advance Skin Wound Care.* 2009;22:212-221.
8. Unintended weight loss (UWL) in older adults: Evidence-based nutrition practice guideline. American Dietetic Association Evidence Analysis Library. <http://www.adaevidencelibrary.com/topic.cfm?cat=3651&library=EBG>. Accessed November 2, 2009.
9. *Diabetes Management in the Long-Term Care Setting Clinical Practice Guideline.* Columbia, MD: American Medical Directors Association; 2008.
10. American Geriatrics Society Panel on Improving Care for Elders with Diabetes. Guidelines for improving the care of the older person with diabetes mellitus. *J Am Geriatr Soc.* 2003;51(suppl):S265-S280.
11. Nutrition recommendations and interventions for diabetes: A position statement of the American Diabetes Association. *Diabetes Care.* 2008;31(suppl):S61-S78.
12. Williams MA, Fleg JL, Ades PA, Chaitman BR, Miller NH, Mohiuddin SM, Ockene IS, Taylor CB, Wenger NK. Secondary prevention of coronary heart disease in the elderly (with emphasis on patients ≥ 75 years of age). *Circulation.* 2002;105:1735-1743.
13. Appel LJ, Brands MW, Daniels SR, Karanja N, Elmer PJ, Sacks FM. Dietary approaches to prevent and treat hypertension: A scientific statement from the American Heart Association. *Hypertension.* 2006;47:296-308. American Heart Association Web site. <http://hyper.ahajournals.org/cgi/content/full/47/2/296>. Accessed November 3, 2009.
14. Riegel B, Moser DK, Anker SD, Appel LJ, Dunbar SB, Grady KL, Gurtvitz MZ, Havranek EP, Lee CS, Lindenfeld J, Peterson PN, Pressler SJ, Schocken DD, Whellan DJ. State of the science: Promoting self-care in persons with heart failure: A scientific statement from the American Heart Association. *Circulation.* 2009;120:1141-1163.
15. Paterna S, Gaspare P, Fasullo S, Sarullo FM, Di Pasquale P. Normal-sodium diet compared with low-sodium diet in compensated congestive heart failure: Is sodium an old enemy or a new friend? *Clin Sci (Lond).* 2008;114:221-230.
16. Niedert KC, Dornier B. *Nutrition Care of the Older Adult.* 2nd ed. Chicago, IL: American Dietetic Association; 2004:36.
17. Levitan EB, Walk A, Mittleman MA. Consistency with the DASH diet and incidence of heart failure. *Arch Intern Med.* 2009;160:851-857.
18. Chronic kidney disease: Disease process. American Dietetic Association Nutrition Care Manual Web site. http://www.nutritioncaremanual.org/content.cfm?ncm_content_id=78551. Accessed October 30, 2009.
19. Lindemann RD. The aging renal system. In: Chernoff R, ed. *Geriatric Nutrition: The Health Professional's Handbook.* 3rd ed. Sudberry, MD: Jones and Bartless Publishers; 2006:295-306.
20. Niedert KC, Dornier B. *Nutrition Care of the Older Adult.* 2nd ed. Chicago, IL: American Dietetic Association; 2004:62.
21. Villareal DT, Shah K. Obesity in older adults—a growing problem. In: Bales CW, Ritchie CS. *Handbook of Clinical Nutrition and Aging.* 2nd ed. New York, NY: Humana Press; 2009:263-277.
22. Miller SL, Wolfe RR. The danger of weight loss in the elderly. *J Nutr Health Aging.* 2008;12:487-491.
23. Kennedy RI, Chokkalingham K, Srinivasan R. Obesity in the elderly: Who should we be treating, and why, and how? *Curr Opin Clin Nutr Metab Care.* 2004;7:3-9.
24. Janssen I. Sarcopenia. In: Bales CW, Ritchie CS. *Handbook of Clinical Nutrition and Aging.* 2nd ed. New York, NY: Humana Press; 2009:183-205.
25. Li L, Lewis TL. Alzheimer's disease and other neurodegenerative disorders. In: Bales CW, Ritchie CS. *Handbook of Clinical Nutrition and Aging.* 2nd ed. New York, NY: Humana Press; 2009:499-521.
26. Young KWH, Green CE. Shift in diurnal feeding patterns in nursing home residents with Alzheimer's disease. *J Gerontol.* 2001;56:700-706.
27. Care of the dying patient. Updated July 2006. Merck Web site. http://www.merck.com/mkgr/CVMHighLight?file=/mkgr/mmg/sec1/ch13/ch13a.jsp%3Fregion%3Dmerckcom&word=palliative&word=care&domain=www.merck.com#hl_anchor. Accessed October 30, 2009.
28. Position of the American Dietetic Association: Ethical and legal issues in nutrition, hydration, and feeding. *J Am Diet Assoc.* 2008;108:873-882.
29. State operations manual: Appendix PP-Guidance to surveyors for long term care facilities. Revised December 2, 2009. Centers for Medicare and Medicaid Services Web site. http://cms.hhs.gov/manuals/Downloads/som107ap_pp_guidelines_tfc.pdf. Accessed October 12, 2009.

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Authors: Becky Dorner, RD, LD, Nutrition Consulting Services and Becky Dorner & Associates, Inc, Akron, OH; Elizabeth K. Friedrich, MPH, RD, LDN, Nutrition and Health Promotion Consultant, Salisbury, NC; Mary Ellen Posthauer, RD, LD, M.E.P. Healthcare Dietary Services, Inc, Evansville, IN.

Reviewers: Jo Jo Dantone-Debarbieris, MS, RD, LDN (Nutrition Education Resources, Inc, LaPlace, LA); Sharon Denny, MS, RD (ADA Knowledge Center, Chicago, IL); Kristin A.R. Gustashaw, MS, RD, CSG (Rush University Medical Center, Chicago, IL); Mary H. Hager, PhD, RD, FADA (ADA Policy Initiative & Advocacy, Washington, DC); Sharon McCauley, MS, MBA, RD, LDN, FADA (ADA Quality Management, Chicago, IL); Management in Food and Nutrition Systems dietetics practice group (Susan M. McGinley, Sodexo Senior Services, Haddon Heights, NJ); Lynn Carpenter Moore, RD, LD, Nutrition Systems, INC, Jackson, MS; Esther Myers, PhD, RD, FADA (ADA Research & Strategic Business Development, Chicago, IL); Lisa Spence, PhD, RD (ADA Research & Strategic Business Development, Chicago, IL); Dietitians in Health Care Communities dietetics practice group (Lisa A. Weigand, RD, LD/N, Preferred Clinical Services, Ocala, FL).

Association Positions Committee Workgroup: Alana Cline, PhD, RD (chair); Dian O. Weddle, PhD, RD, FADA; Linda Roberts, MS, RD, LDN (content advisor).

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