Nutritional Problems Affecting Older Adults

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KEYWORDS

• Malnutrition • Anorexia of aging • Sarcopenia • Cachexia • Dehydration
• Oral health

KEY POINTS

- Only those older adults with an actual deficiency determined by a laboratory blood test should be treated with an oral supplement.
- Successful treatment of depression can reverse weight loss in older adults.
- Hypernatremia and hyponatremia are the most common electrolyte abnormalities found in older adults and both are associated with a high mortality.

INTRODUCTION

Food and water are basic to life. For the older adult, food means family, togetherness, and quality of life. In older age there are physiologic changes resulting from a decrease in energy needs and expenditures referred to as anorexia of aging.[1] This physiologic anorexia results from changes related to normal aging, such as alterations in taste and smell and earlier satiation.[2] Nurses need to be able to successfully identify, evaluate, and treat problems affecting food and fluid intake and nutritional status. This article describes potential nutritional problems affecting older adults and then discusses evidence-based assessment strategies and treatment modalities that target these problems.

MALNUTRITION

Anorexia of aging is a physiologic process that occurs with older age. This physiologic anorexia increases the risk of developing weight loss and malnutrition when an older adult develops a physical or psychological illness.[1] Malnutrition is defined as "the state of being poorly nourished"[3(p4)] and can be caused by a lack of nutrients (undernutrition) or an excess of nutrients (overnutrition). For the older adult, the cause is usually a lack of nutrients, or undernutrition. The prevalence of malnutrition in community

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dwelling older adults is 15%; if homebound, the prevalence is variable at 5% to 44%.[4] The prevalence among those living in nursing homes is 30% to 85%,[4,5] and 20% to 60% if hospitalized.[4]

Sarcopenia and cachexia are two major markers of malnutrition in older adults.[6] Sarcopenia is defined as "a syndrome of progressive and generalized loss of skeletal muscle mass and strength, which increases the risk of adverse outcomes, such as physical disability, poor quality of life, and even death."[7(p20)] A clinical presentation of decreased muscle mass and either decreased physical performance or decreased muscle strength confirms a diagnosis of sarcopenia. Cachexia is a complex metabolic process associated with an underlying terminal illness (eg, end-stage renal disease, cancer) and is characterized by loss of fat and muscle mass, and anorexia.[2] Cachexia usually presents with severe wasting and is frequently associated with insulin resistance, breakdown of muscle protein, and inflammation. Of interest, older adults who present with cachexia also have sarcopenia, but those with sarcopenia frequently do not have cachexia.[7]

MICRONUTRIENT DEFICIENCY

Vitamin and mineral supplements are commonly recommended for older adults. However, supplementation may not be the best approach. The best way to ingest micronutrients is to eat a well-balanced diet. If this is not possible, supplementation may be needed. However, only those older adults with an actual deficiency determined by a laboratory blood test should be treated with an oral supplement.

For older adults living in the community (nursing homes, assisted living facilities, or group homes), oral nutritional supplements may not be the best first approach. Fortified foods, or those foods chosen based on their enhancement during processing (with vitamins and minerals) or enhanced with butter or cream during preparation, were found to be the best first approach to improving food intake and health in this population.[8]

IMPLICATIONS

A lack of food or nutrients affects most organ systems.[4] Malnutrition can lead to delayed wound healing, the development of pressure ulcers, increased susceptibility to infections, delayed recovery from acute illness, functional decline, cognitive decline and depression,[4] difficulty in swallowing, and dehydration.[2]

Malnutrition also can result in decreased lean body mass, lessened muscular strength and aerobic capacity, and alterations in gait and balance, increasing the risk for falls and fractures. For many older adults, this progression of events leads to frailty, dependence, and decreased quality of life.[2] Often used as a measure of malnutrition, body mass index is an easy-to-use measure of body fat levels and is determined using the calculation in **Box 1**.[4]

FACTORS INFLUENCING NUTRITIONAL RISK

Many factors contribute to weight loss and malnutrition in older adults. These factors are classified into three major groups: (1) social, (2) psychological, and (3) biologic

Box 1
Body mass index

Body mass index (BMI) is a useful measurement for malnutrition and is calculated using the following formula: BMI = weight (kg)/height (m^2)