Unintentional Weight Loss in Older Adults

Key Points

Poor nutrition and malnutrition occur in 15 to 50% of the elderly population, while hospitalized elders have a prevalence of 20 to 60%.

Malnourished elderly are approximately 10 times more likely to die versus those without nutritional deficits.

A diagnostic criterion for significant weight loss includes:

- 5% unintentional body weight loss in 1 month
- 10% unintentional body weight loss in 6 months

Overview

Older persons undergo changes in body composition and age related changes in physiology, metabolism and functional reserve. Consequently the well standardized nutritional requirements for younger and middle aged persons cannot be generalized to older adults.

The following normal changes in the aging older adult

- Taste sensation but **not** discrimination is diminished:
  - Tendency to add more salt & sweetener to food
  - Can discriminate sweet from salty
- Diminished olfactory function further impairs taste sensation
- Body composition:
  - Bone mass, lean mass, water content
  - Total body fat, commonly with intra-abdominal fat stores
- Energy requirements:
  - Reduced basal metabolic rate (BMR) in older adults reflects loss of muscle mass
  - Estimation of energy needs based on body weight: 25 to 30 kcal/kg/day
- Macronutrient requirements:
  - Protein: 0.8 g/kg/day (1.5 g/kg/day under stress)
- Micronutrient requirements:
  - Emphasize supplements of calcium, vitamin D, vitamin B12
- Fluid requirements:
  - Dehydration is the most common fluid or electrolyte disturbance in older adults
  - Decreased perception of thirst is associated with normal aging
Etiology

The following DETERMINE acronym can be utilized to help discern the cause for malnutrition:

- Disease
- Eating poorly
- Tooth loss
- Economic hardship
- Reduced social contact
- Multiple medications
- Involuntary weight loss or gain
- Need for assistance in self-care
- Elderly age

**Etiology of Unintentional Weight Loss in the Elderly: Data from Selected Studies**

*Incidence of diagnosis (%)*

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Outpatients (N = 45)</th>
<th>Nursing home residents (N = 185)</th>
<th>Inpatients (N = 154)</th>
<th>Outpatients and inpatients (N = 91)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No identified cause</td>
<td>24</td>
<td>3</td>
<td>23</td>
<td>26</td>
</tr>
<tr>
<td>Psychiatric disorder (including depression)</td>
<td>18</td>
<td>58</td>
<td>8</td>
<td>17</td>
</tr>
<tr>
<td>Cancer</td>
<td>16</td>
<td>7</td>
<td>36</td>
<td>19</td>
</tr>
<tr>
<td>Benign (nonmalignant) gastrointestinal disorder</td>
<td>11</td>
<td>3</td>
<td>17</td>
<td>14</td>
</tr>
<tr>
<td>Medication effect</td>
<td>9</td>
<td>14</td>
<td>NA</td>
<td>2</td>
</tr>
<tr>
<td>Neurologic disorder</td>
<td>7</td>
<td>15</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Others (hyperthyroidism, poor intake, tuberculosis, cholesterol phobia,</td>
<td>15</td>
<td>NA</td>
<td>11</td>
<td>20</td>
</tr>
<tr>
<td>Others (hyperthyroidism, poor intake, tuberculosis, cholesterol phobia,</td>
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<td>• NA = not applicable.</td>
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<td>• Adapted with permission from Gazewood JD, Mehr DR. Diagnosis and management of weight loss in the elderly. J Fam Pract 1998; 47:19–25.</td>
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</table>
Nutritional Risk Factors for Elders include:

- Alcohol or substance abuse
- Cognitive dysfunction
- Decreased exercise
- Depression, poor mental health
- Functional limitations, limited mobility, transportation
- Inadequate funds
- Limited education
- Medical problems, chronic diseases
- Medications
- Poor dentition
- Restricted diet, poor eating habits

Assessment

- Comprehensive history and physical
- The Mini-Nutritional Assessment www.nestle-nutrition.com can be used to screen for malnutrition
- Anthropometrics
  - Mainstay of nutritional assessments in elders
  - Body mass index (BMI) = weight in kg/height in m2
- Nutritional intake
  - Defined as average or usual intake of food groups, nutrients or energy below threshold of Recommended Daily Allowance.
- Medication Review- here are a few examples of medications that can potentially cause weight loss:
  - Digoxin, aspirin, angiotensin-converting enzyme inhibitors, calcium channel blockers, loop diuretics, hydrochlorothiazide, statins
  - Selective serotonin reuptake inhibitors, anticonvulsants, lithium, levodopa, memantine, donepezil
  - Bisphosphonates, Nonsteroidal anti-inflammatory drugs, allopurinol, colchicine
  - Levothyroxine, metformin
  - Anticholinergics, antibiotics, decongestants, iron, potassium, alcohol, nicotine
- Diagnostics
  - Albumin
  - Prealbumin
  - Cholesterol
  - Folic Acid
  - Vitamin B12
Prevention Strategies

MUCH EASIER THAN TREATMENT FOR MALNUTRITION

- Observe food preferences
- Avoid restrictive "therapeutic diets" unless clinical value is certain
  - Instead of ADA Diet… Regular diet with no concentrated sweets
  - Instead of AHA Diet… Regular diet- low salt renders food unpalatable
- Provide assistance if needed-
  - A contracted, bed bound patient may be unable to feed him/her self
- Enhance comfort, taste, appearance of food
  - Pureed diet may appear unpalatable
- Enhance social aspect; provide adequate time
- Address dental/oral complaints of chewing discomfort/dysfunction
  - Dentures
  - Oral Health
- Depression, dementia, and elder abuse are often accompanied by weight loss
- Examine the oral cavity for gingivitis, thrush, open sores, loose teeth, or edentulism
- Treatment should be multidisciplinary, including occupational therapy, nutrition, speech therapy, social work and dentistry
- Most pharmacologic treatment to induce weight gain are of minimal benefit, but nutritional supplements have resulted in weight gain and improved mortality
- A BMI < 22 kg/m² or a Karnofsky score less than 40 is indication for hospice admission for weight loss and failure to thrive.
References


