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Nutrition, Less Than Body Requirement: Risk

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Nutrition, Less Than Body Requirement: Risk

A state in which conditions exist that predispose an individual to less intake of nutrients than is required for health.

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Risk Factors
Pathophysiological

Acute illness

1. Moderate risk (e.g., infection, bleeding, renal impairment)
2. Severe risk (e.g., head injury, major burns, multiple trauma, severe sepsis)

Chronic health problems (e.g., absorptive disorders, anorexia, chemical dependency, confusion, dental caries or periodontal disease, depression)

Dysphagia

Hypermetabolic/catabolic states

Inability to eat for several days prior to admission for acute illness or surgery

Medications that interfere with appetite or eating

Nausea and vomiting

Nothing by mouth (NPO) status supplemented only with low caloric intravenous solutions (e.g., 5% Dextrose in water) for more than three to four days

Responses to illness or disability (e.g., diarrhea, drowsiness, incontinence, pain, reduced ability to smell or taste, requires assistance to eat)

Serum albumin

1. 3.0%–3.4%/g indicates mild visceral protein depletion
2. 2.1%–2.9%/g indicates moderate depletion
3. 2.0% g or less indicates severe depletion

Total lymphocyte count

1. Less than 1500 cells/cu mm indicates risk
2. Less than 900 cells/cu mm indicates severe depletion
Weight loss
1. 10%, no major problems if at ideal weight (Problematic if greater than 5% lost in last month or 10% lost in last six months)
2. 10%–20%, moderate risk
3. Greater than 20%, severe risk
4. Greater than 30%, death due to cardiac malnutrition

**Psychosociobehavioral**

Food fadism
Inability to procure appropriate foods (e.g., emotional distress, home bound, inadequate income)
Lack of knowledge regarding nutritional needs
Lack of time to prepare nutritious foods
Social isolation
Starvation
Stress

(Additional risks for less vitamins or minerals than Recommended Dietary Allowance [RDA])
Does not eat raw fruits and vegetables (folacin, vitamins A and C)
Low carbohydrate diet (B vitamins, carbohydrates)
Poverty (vitamins)
Over age 65 (protein, calcium, iron, Vitamins A, C, B₁, B₆, and B₁₂)
Overuse of alcohol (B vitamins, protein)

**EXPECTED OUTCOMES**

Client’s nutritional intake will be appropriate to body requirements.
Risks for nutritional depletion are identified.
Preventive measures are taken before actual nutritional depletion or other sequelae develop (e.g., impaired healing, impaired weaning from ventilator).

**INTERVENTIONS**

**Universal**
Complete nutritional assessment including:
1. Anthropometric measurements (skinfold thickness, arm circumference, weight)
2. Consumption of: calories sufficient to maintain weight

**RATIONALE**

Early identification of risk can result in more effective treatment, prevention of other health problems, enhanced performance, and enhanced recovery from illness.
necessary nutrients  
relatively more complex carbohydrates, such as whole grain, fruits and vegetables, rather than simple sugars  
relatively more fish, poultry, and legumes and less red meats  
relatively more nutrient-rich foods as compared with empty calories.

3. Finances available/used for food
4. Food likes/dislikes
5. General knowledge of nutrition and what constitutes a balanced diet
6. One- to two-day diet history including foods from all four food groups
7. Patterns of eating including three meals per day
8. Persons eating with client
9. Presence of other risk factors for nutritional depletion (e.g., illness)
10. Present and usual weight, patterns of weight loss

Provide, in collaboration with other disciplines, individual and group health education, prepare and distribute information regarding nutrients necessary for health, risk factors for nutritional depletion, and community resources for subsidized or delivered meal programs.

Maintenance of nutrition can prevent other health problems.

Dietary consult for those at high risk.

Collaboration is essential for quality health care.
### Interventions

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<th>Inpatient</th>
<th>Rationale</th>
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<td>Include thorough nutritional assessment with each admission (also see &quot;Nutrition, Less Than Body Requirement&quot;).</td>
<td>The combination of prior risk factors and stress of illness increases likelihood of nutritional depletion.</td>
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<td>Institute calorie count in collaboration with dietitian for those at high risk.</td>
<td>Calorie counts are helpful in identifying problems in consumption.</td>
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<td>Review serum albumin, transferrin, and thyroxine-binding proalbumin levels at regular intervals for those at high risk.</td>
<td>Serum albumin levels decline slowly (half-life of 20 days), so levels need to be reviewed frequently. Transferrin and proalbumin are more sensitive indicators of malnutrition.</td>
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<th>Community/Home Health</th>
<th>Rationale</th>
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<td>Initiate screening and referral for those at high risk.</td>
<td>Screening enables services to be targeted to those in greatest need.</td>
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### References/Bibliography


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