## NUTRITION DIAGNOSIS TERMS AND DEFINITIONS

<table>
<thead>
<tr>
<th>Nutrition Diagnostic Term</th>
<th>Term Number</th>
<th>Definition of Diagnostic Term</th>
<th>Reference Sheet Page Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DOMAIN: INTAKE</strong></td>
<td></td>
<td>Defined as “actual problems related to intake of energy, nutrients, fluids, bioactive substances through oral diet or nutrition support (enteral or parenteral nutrition)”</td>
<td></td>
</tr>
<tr>
<td>Class: Caloric Energy Balance (1)</td>
<td></td>
<td>Defined as “actual or estimated changes in energy (kcal)”</td>
<td></td>
</tr>
<tr>
<td>Hypermetabolism (Increased energy needs)</td>
<td>Ni-1.1</td>
<td>Resting metabolic rate (RMR) above predicted requirements due to stress, trauma, injury, sepsis, or disease. Note: RMR is the sum of metabolic processes of active cell mass related to the maintenance of normal body functions and regulatory balance during rest.</td>
<td>32-33</td>
</tr>
<tr>
<td>Increased energy expenditure</td>
<td>Ni-1.2</td>
<td>Resting metabolic rate (RMR) above predicted requirements due to body composition, medications, endocrine, neurologic, or genetic changes. Note: RMR is the sum of metabolic processes of active cell mass related to the maintenance of normal body functions and regulatory balance during rest.</td>
<td>34</td>
</tr>
<tr>
<td>Hypometabolism (Decreased energy needs)</td>
<td>Ni-1.3</td>
<td>Resting metabolic rate (RMR) below predicted requirements due to body composition, medications, endocrine, neurologic, or genetic changes</td>
<td>35-36</td>
</tr>
<tr>
<td>Inadequate energy intake</td>
<td>Ni-1.4</td>
<td>Energy intake that is less than energy expenditure, established reference standards, or recommendations based upon physiological needs. Exception: when the goal is weight loss or during end of life care.</td>
<td>37-38</td>
</tr>
<tr>
<td>Class: Oral or Nutrition Support Intake (2)</td>
<td></td>
<td>Defined as “actual or estimated food and beverage intake from oral diet or nutrition support compared with patient goal”</td>
<td></td>
</tr>
<tr>
<td>Excessive energy intake</td>
<td>Ni-1.5</td>
<td>Caloric intake that exceeds energy expenditure, established reference standards, or recommendations based upon physiological needs. Exception: when weight gain is desired.</td>
<td>39-40</td>
</tr>
<tr>
<td>Inadequate oral food/beverage intake</td>
<td>Ni-2.1</td>
<td>Oral food/beverage intake that is less than established reference standards or recommendations based upon physiological needs. Exception: when recommendation is weight loss or during end of life care.</td>
<td>41-42</td>
</tr>
<tr>
<td>Excessive oral food/beverage intake</td>
<td>Ni-2.2</td>
<td>Oral food/beverage intake that exceeds energy expenditure, established reference standards, or recommendations based upon physiological needs. Exception: when weight gain is desired.</td>
<td>43-44</td>
</tr>
<tr>
<td>Inadequate intake from enteral/parenteral nutrition infusion</td>
<td>Ni-2.3</td>
<td>Enteral or parenteral infusion that provides fewer calories or nutrients compared to established reference standards or recommendations based upon physiological needs. Exception: when recommendation is for weight loss or during end of life care.</td>
<td>45-46</td>
</tr>
<tr>
<td>Excessive intake from enteral/parenteral nutrition</td>
<td>Ni-2.4</td>
<td>Enteral or parenteral infusion that provides more calories or nutrients compared to established reference standards or recommendations based upon physiological needs</td>
<td>47-48</td>
</tr>
<tr>
<td>Inappropriate infusion of enteral/parenteral nutrition USE WITH CAUTION ONLY AFTER DISCUSSION WITH OTHER MEMBERS OF THE HEALTH CARE TEAM</td>
<td>Ni-2.5</td>
<td>Enteral or parenteral infusion that provides either fewer or more calories and/or nutrients or is of the wrong composition or type, is not warranted because the patient is able to tolerate an enteral intake, or is unsafe because of the potential for sepsis or other complications</td>
<td>49-50</td>
</tr>
</tbody>
</table>
# NUTRITION DIAGNOSIS TERMS AND DEFINITIONS

## Class: Fluid Intake (3)
*Defined as “actual or estimated fluid intake compared with patient goal”*

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Edition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate fluid intake</td>
<td>Lower intake of fluid containing foods or substances compared to established reference standards or recommendations based upon physiological needs</td>
<td>51-52</td>
</tr>
<tr>
<td>Excessive fluid intake</td>
<td>Higher intake of fluid compared to established reference standards or recommendations based upon physiological needs</td>
<td>53-54</td>
</tr>
</tbody>
</table>

## Class: Bioactive Substances (4)
*Defined as “actual or observed intake of bioactive substances, including single or multiple functional food components, ingredients, dietary supplements, alcohol”*

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Edition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate bioactive substance intake</td>
<td>Lower intake of bioactive substances containing foods or substances compared to established reference standards or recommendations based upon physiological needs</td>
<td>55-56</td>
</tr>
<tr>
<td>Excessive bioactive substance intake</td>
<td>Higher intake of bioactive substances other than traditional nutrients, such as functional foods, bioactive food components, dietary supplements, food concentrates compared to established reference standards or recommendations based upon physiological needs</td>
<td>57-58</td>
</tr>
<tr>
<td>Excessive alcohol intake</td>
<td>Intake above the suggested limits for alcohol</td>
<td>59-60</td>
</tr>
</tbody>
</table>

## Class: Nutrient (5)
*Defined as “actual or estimated intake of specific nutrient groups or single nutrients as compared with desired levels”*

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Edition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased nutrient needs (specify)</td>
<td>Increased need for a specific nutrient compared to established reference standards or recommendations based upon physiological needs</td>
<td>61-62</td>
</tr>
<tr>
<td>Evident protein-energy malnutrition</td>
<td>Inadequate intake of protein and/or energy</td>
<td>63-64</td>
</tr>
<tr>
<td>Inadequate protein-energy intake</td>
<td>Lower intake of protein and/or energy compared to established reference standards or recommendations based upon physiological needs of short or recent duration</td>
<td>65-66</td>
</tr>
<tr>
<td>Decreased nutrient needs (specify)</td>
<td>Decreased need for a specific nutrient compared to established reference standards or recommendations based upon physiological needs</td>
<td>67-68</td>
</tr>
<tr>
<td>Imbalance of nutrients</td>
<td>An undesirable combination of ingested nutrients, such that the amount of one nutrient ingested interferes with or alters absorption and/or utilization of another nutrient</td>
<td>69-70</td>
</tr>
</tbody>
</table>

### Sub-Class: Fat and Cholesterol (51)

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Edition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate fat intake</td>
<td>Lower fat intake compared to established reference standards or recommendations based upon physiological needs. Exception: when recommendation is for weight loss or during end of life care.</td>
<td>71</td>
</tr>
<tr>
<td>Excessive fat intake</td>
<td>Higher fat intake compared to established reference standards or recommendations based upon physiological needs</td>
<td>72-73</td>
</tr>
<tr>
<td>Inappropriate intake of food fats (specify)</td>
<td>Intake of wrong type or quality of food fats compared to established reference standards or recommendations based upon physiological needs</td>
<td>74-75</td>
</tr>
</tbody>
</table>

### Sub-Class: Protein (52)

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Edition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate protein intake</td>
<td>Lower intake of protein containing foods or substances compared to established reference standards or recommendations based upon physiological needs</td>
<td>76</td>
</tr>
<tr>
<td>Excessive protein intake</td>
<td>Intake above the recommended level and/or type of protein compared to established reference standards or</td>
<td>77-78</td>
</tr>
</tbody>
</table>
### NUTRITION DIAGNOSIS TERMS AND DEFINITIONS

<table>
<thead>
<tr>
<th>Sub-Class: Carbohydrate and Fiber (53)</th>
<th>NI-52.3</th>
<th>Inappropriate intake of amino acids (specify)</th>
<th>78-80</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-Class: Carbohydrate and Fiber (53)</td>
<td>NI-53.1</td>
<td>Inadequate carbohydrate intake</td>
<td>81</td>
</tr>
<tr>
<td>Sub-Class: Carbohydrate and Fiber (53)</td>
<td>NI-53.2</td>
<td>Excessive carbohydrate intake</td>
<td>82-83</td>
</tr>
<tr>
<td>Sub-Class: Carbohydrate and Fiber (53)</td>
<td>NI-53.3</td>
<td>Inappropriate intake of types of carbohydrate (specify)</td>
<td>84-85</td>
</tr>
<tr>
<td>Sub-Class: Carbohydrate and Fiber (53)</td>
<td>NI-53.4</td>
<td>Inconsistent carbohydrate intake</td>
<td>86-87</td>
</tr>
<tr>
<td>Sub-Class: Carbohydrate and Fiber (53)</td>
<td>NI-53.5</td>
<td>Inadequate fiber intake</td>
<td>88-89</td>
</tr>
<tr>
<td>Sub-Class: Carbohydrate and Fiber (53)</td>
<td>NI-53.6</td>
<td>Excessive fiber intake</td>
<td>90-91</td>
</tr>
<tr>
<td>Sub-Class: Vitamin (54)</td>
<td>NI-54.1</td>
<td>Inadequate vitamin intake (specify)</td>
<td>92-94</td>
</tr>
<tr>
<td>Sub-Class: Vitamin (54)</td>
<td>NI-54.2</td>
<td>Excessive vitamin intake (specify)</td>
<td>95-96</td>
</tr>
<tr>
<td>Sub-Class: Mineral (55)</td>
<td>NI-55.1</td>
<td>Inadequate mineral intake (specify)</td>
<td>97-98</td>
</tr>
<tr>
<td>Sub-Class: Mineral (55)</td>
<td>NI-55.2</td>
<td>Excessive mineral intake (specify)</td>
<td>99-100</td>
</tr>
</tbody>
</table>

**DOMAIN: CLINICAL**

Defined as “nutritional findings/problems identified that relate to medical or physical conditions”

**Class: Functional (1)**

Defined as “change in physical or mechanical functioning that interferes with or prevents desired nutritional consequences”

<table>
<thead>
<tr>
<th>Sub-Class: Functional (1)</th>
<th>NC-1.1</th>
<th>Swallowing difficulty</th>
<th>101</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-Class: Functional (1)</td>
<td>NC-1.2</td>
<td>Chewing (masticatory) difficulty</td>
<td>102-104</td>
</tr>
<tr>
<td>Sub-Class: Functional (1)</td>
<td>NC-1.3</td>
<td>Breastfeeding difficulty</td>
<td>105-106</td>
</tr>
<tr>
<td>Sub-Class: Functional (1)</td>
<td>NC-1.4</td>
<td>Altered GI function</td>
<td>107-108</td>
</tr>
</tbody>
</table>

**Class: Biochemical (2)**

Defined as “change in capacity to metabolize nutrients as a result of”

<table>
<thead>
<tr>
<th>Class: Biochemical (2)</th>
<th>NC-1.1</th>
<th>Impaired movement of food and liquid from the mouth to the stomach</th>
<th>101</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class: Biochemical (2)</td>
<td>NC-1.2</td>
<td>Impaired ability to manipulate or masticate food for swallowing</td>
<td>102-104</td>
</tr>
<tr>
<td>Class: Biochemical (2)</td>
<td>NC-1.3</td>
<td>Inability to sustain nutrition through breastfeeding</td>
<td>105-106</td>
</tr>
<tr>
<td>Class: Biochemical (2)</td>
<td>NC-1.4</td>
<td>Changes in ability to digest or absorb nutrients</td>
<td>107-108</td>
</tr>
</tbody>
</table>
### NUTRITION DIAGNOSIS TERMS AND DEFINITIONS

<table>
<thead>
<tr>
<th>Class: Weight (3)</th>
<th>Defined as “chronic weight or changed weight status when compared with usual or desired body weight”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underweight</td>
<td>NC-3.1 Low body weight compared to established reference standards or recommendations</td>
</tr>
<tr>
<td>Involuntary weight loss</td>
<td>NC-3.2 Decrease in body weight that is not planned or desired</td>
</tr>
<tr>
<td>Overweight/obesity</td>
<td>NC-3.3 Increased adiposity compared to established reference standards or recommendations</td>
</tr>
<tr>
<td>Involuntary weight gain</td>
<td>NC-3.4 Weight gain above that which is desired or expected</td>
</tr>
</tbody>
</table>

### NUTRITION DIAGNOSIS TERMS AND DEFINITIONS

| Defined as “actual knowledge and beliefs as reported, observed, or documented” |
|-------------------------------|----------------------------------------------------------------------------------|
| Food and nutrition-related knowledge deficit | NB-1.1 Incomplete or inaccurate knowledge about food, nutrition or nutrition-related information and guidelines, e.g., nutrient requirements, nutrition recommendations, diseases and conditions, physiological function, or products |
| Harmful beliefs/attitudes about food or nutrition-related topics | NB-1.2 Beliefs/attitudes and practices about food, nutrition, and nutrition-related topics that are incompatible with sound nutrition principles, nutrition care, or disease/condition |
| Not ready for diet/lifestyle change | NB-1.3 Lack of perceived value of nutrition-related care benefits compared to consequences or effort required to making the change; inconsistencies with other value structure/purpose; antecedent to behavior change |
| Self monitoring deficit | NB-1.4 Lack of data recording to track personal progress |
| Disordered eating pattern | NB-1.5 Beliefs, attitudes, thoughts and behaviors related to food, eating, and weight management, including classic eating disorders as well as less severe, similar conditions that negatively impact health |
| Limited adherence to nutrition-related recommendations | NB-1.6 Lack of nutrition-related changes as per intervention agreed upon by client or population |
| Undesirable food choices | NB-1.7 Food and/or beverage choices that are inconsistent with US Recommended Dietary Intake, US Dietary Guidelines, or with the My Pyramid or with targets defined in the nutrition prescription or nutrition care process |

Class: Knowledge and Beliefs (1)
NUTRITION DIAGNOSIS TERMS AND DEFINITIONS

<table>
<thead>
<tr>
<th>Class:</th>
<th>Food Safety and Access (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defined as:</td>
<td>Actual problems with food access or food safety</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reported, Observed, or Documented</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical inactivity</td>
<td>Low level of activity/ sedentary behavior to the extent that it reduces energy expenditure and impacts health</td>
</tr>
<tr>
<td>Excessive exercise</td>
<td>Amount of exercise that exceeds that which is necessary to improve health and/or athletic performance</td>
</tr>
<tr>
<td>Inability of lack of desire to manage self care</td>
<td>Lack of capacity or unwillingness to implement methods to support healthful food and nutrition-related behavior</td>
</tr>
<tr>
<td>Impaired ability to prepare foods/meals</td>
<td>Cognitive or physical impairment that prevents preparation of foods/meals</td>
</tr>
<tr>
<td>Poor nutrition quality of life</td>
<td>Diminished Nutrition Quality of Life (NQOL) scores related to food impact, self-image, psychological factors, social/interpersonal factors, physical (factors), or self-efficacy</td>
</tr>
<tr>
<td>Self feeding difficulty</td>
<td>Impaired actions to place food in mouth</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Class:</th>
<th>Food Safety and Access (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defined as:</td>
<td>Intake of unsafe food</td>
</tr>
<tr>
<td>Defined as:</td>
<td>Limited access to food</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Intake of unsafe food</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intake of food and/or fluids intentionally or unintentionally contaminated with toxins, poisonous products, infectious agents, microbial agents, additives, allergens, and/or agents of bioterrorism</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Limited access to food</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diminished ability to acquire food from sources (e.g., shopping, gardening, meal delivery), due to financial constraints, physical impairment, caregiver support, or unsafe living conditions (e.g. crime hinders travel to grocery store). Limiting food intake because of concerns about weight or aging.</td>
<td></td>
</tr>
</tbody>
</table>

INTAKE DOMAIN • Caloric Energy Balance

HYPERMETABOLISM (NI-1.1)

Definition
Resting metabolic rate (RMR) above predicted requirements due to stress, trauma, injury, sepsis, or disease. Note: RMR is the sum of metabolic processes of active cell mass related to the maintenance of normal body functions and regulatory balance during rest.

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Catabolic illness
- Infection
- Sepsis

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity:

<table>
<thead>
<tr>
<th>Nutritional Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td>• Insulin resistance (difficult to control blood glucose)</td>
</tr>
<tr>
<td>Anthropometric Measurements</td>
<td></td>
</tr>
<tr>
<td>Physical Examination Findings</td>
<td>• Fever</td>
</tr>
<tr>
<td></td>
<td>• Increased heart rate</td>
</tr>
<tr>
<td></td>
<td>• Increased respiratory rate</td>
</tr>
<tr>
<td></td>
<td>• Measured RMR = estimated or expected RMR</td>
</tr>
<tr>
<td>Food/Nutrition History</td>
<td>• Conditions associated with a diagnosis or treatment of, e.g., AIDS/HIV, burns, chronic obstructive pulmonary disease, hip/long bone fracture, infection, surgery, trauma, hyperthyroidism (pre- or untreated), some cancers (specify)</td>
</tr>
<tr>
<td>Client History</td>
<td>• Medications associated with ↑ RMR</td>
</tr>
</tbody>
</table>

Edition: 2006
HYPERMETABOLISM (NI-1.1)

References:

INCREASED ENERGY EXPENDITURE (NI-1.2)

Definition
Resting metabolic rate (RMR) above predicted requirements due to body composition, medication, endocrine, neurologic, or genetic change(s). Note: RMR is the sum of metabolic processes of active cell mass related to the maintenance of normal body functions and regulatory balance during rest.

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Anabolism or growth
- Voluntary or involuntary physical activity/movement

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td>• Unintentional weight loss of 10% in 6 months, 5% in 1 month&lt;br&gt;• Evidence of need for accelerated or catch up growth or weight gain in children; absence of normal growth&lt;br&gt;• Increased proportional lean body mass</td>
</tr>
<tr>
<td>Anthropometric Measurements</td>
<td></td>
</tr>
<tr>
<td>Physical Examination Findings</td>
<td>• Measured RMR &gt; estimated or expected RMR</td>
</tr>
<tr>
<td>Food/Nutrition History</td>
<td>• Increased physical activity, e.g., endurance athlete</td>
</tr>
<tr>
<td>Client History</td>
<td>• Conditions associated with a diagnosis or treatment, e.g., Parkinson’s disease, cerebral palsy, Alzheimer’s disease, other dementia</td>
</tr>
</tbody>
</table>

Reference:
INTAKE DOMAIN • Caloric Energy Balance

HYPOMETABOLISM (NI-1.3)

Definition
Resting metabolic rate (RMR) below predicted requirements due to body composition, medications, endocrine, neurologic, or genetic changes

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Loss of lean body mass, weight loss
- Medications, e.g., midazolam, propranolol, glipizide
- Endocrine changes, e.g., hypothyroidism

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td>• Increased TSH, decreased T4, T3 (hypothyroidism)</td>
</tr>
<tr>
<td>Anthropometric Data</td>
<td>• Decreased weight or mid-arm muscle circumference</td>
</tr>
<tr>
<td></td>
<td>• Weight gain (e.g., hypothyroidism)</td>
</tr>
<tr>
<td></td>
<td>• Growth stunting or failure, based on National Center for Health Statistics (NCHS) growth standards</td>
</tr>
<tr>
<td>Physical Exam Findings</td>
<td>• Decreased or normal adipose and somatic protein stores</td>
</tr>
<tr>
<td></td>
<td>• Measured RMR &lt; estimated or expected RMR</td>
</tr>
<tr>
<td>Food/Nutrition History</td>
<td>• Conditions associated with a diagnosis or treatment, e.g., hypothyroidism, anorexia nervosa, malnutrition, failure to thrive, Prader-Willi syndrome, hypotonic conditions</td>
</tr>
<tr>
<td></td>
<td>• Bradycardia, hypotension, decreased bowel motility, slow breathing rate, low body temperature (in significant weight loss)</td>
</tr>
<tr>
<td></td>
<td>• Cold intolerance, hair loss, decreased endurance, difficulty concentrating, decreased libido, feelings of anxiety/depression</td>
</tr>
</tbody>
</table>

References:
INADEQUATE ENERGY INTAKE (NI-1.4)

Definition
Energy intake that is less than energy expenditure, established reference standards, or recommendations based upon physiological needs. Exception: when the goal is weight loss or during end of life care.

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Pathologic or physiologic causes that result in increased energy requirements or decreased ability to consume sufficient energy, e.g., increased nutrient needs due to prolonged catabolic illness
- Lack of access to food or artificial nutrition, e.g., economic constraints, cultural or religious practices restricting food given to elderly and/or children
- Food- and nutrition-related knowledge deficit
- Psychological causes, e.g., depression or disordered eating

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Biochemical Data</strong></td>
<td>• Low Chol</td>
</tr>
<tr>
<td><strong>Anthropometric Measurements</strong></td>
<td></td>
</tr>
</tbody>
</table>
| **Physical Examination Findings** | • Weight loss  
                                    | • Poor dentition                                                        |

Food/Nutrition History
Reports or observations of:
- Insufficient energy intake from diet compared to needs based on estimated or measured resting metabolic rate
- Restriction or omission of energy dense foods from diet
- Food avoidance and/or lack of interest in food
- Inability to independently consume foods/liquids (diminished joint mobility of wrist, hand, or digit)
- Parenteral or enteral nutrition insufficient to meet needs based on estimated or measured resting metabolic rate

Client History
- Excessive consumption of alcohol or other drugs that reduce hunger

Reference:
**INTAKE DOMAIN: Caloric Energy Balance**

**EXCESSIVE ENERGY INTAKE (NI-1.5)**

**Definition**
Caloric intake that exceeds energy expenditure, established reference standards, or recommendations based upon physiological needs. Exception: when weight gain is desired.

**Etiology (Cause/Contributing Risk Factors)**
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Harmful beliefs/attitudes about food, nutrition, and nutrition-related topics
- Food- and nutrition-related knowledge deficit
- Lack of access to healthful food choices, e.g., food provided by caregiver
- Lack of value for behavior change, competing values
- Mental illness, depression
- Medications that increase appetite, e.g., steroids
- Overfeeding of parenteral/enteral nutrition (TPN/EN)
- Unwilling or uninterested in reducing energy intake
- Failure to adjust for lifestyle changes and decreased metabolism, e.g., aging
- Resolution of prior hypermetabolism without reduction in intake

**Signs/Symptoms (Defining Characteristics)**
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

**Nutrition Assessment Category Potential Indicators of this Nutrition Diagnosis (one or more must be present)**

| **Biochemical Data** | Overfeeding of TPN/EN (usually seen early after initiation of feeding):  
|                      | • Hyperglycemia  
|                      | • Hypokalemia < 3.5 mEq/L  
|                      | • Hypophosphatemia <1.0 mEq/L  
|                      | • Abnormal liver function tests |
| **Anthropometric Measurements** | Body fat percentage > 25% for men and > 32% for women  
|                      | • BMI > 25  
|                      | • Weight gain |
| **Physical Exam Findings** | Increased body adiposity  
|                      | Increased respirations |
| **Food/Nutrition History** | Observations or reports of intake of calorically dense foods/beverages or large portions of foods/beverages  
|                      | Observations, reports, or calculation of TPN/EN above estimated or measured (e.g., indirect calorimetry) caloric expenditure  
|                      | Metabolic cart/indirect calorimetry measurement, e.g., respiratory quotient > 1.0 |
| **Client History** | Conditions associated with a diagnosis or treatment of, e.g., obesity, overweight, metabolic syndrome, depression, or anxiety disorder |

**References:**
INADEQUATE ORAL FOOD/BEVERAGE INTAKE (NI-2.1)

**Definition**
Oral food/beverage intake that is less than established reference standards or recommendations based upon physiological needs. Exception: when the goal is weight loss or during end of life care.

**Etiology (Cause/Contributing Risk Factors)**
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Physiologic causes, e.g., increased nutrient needs due to prolonged catabolic illness
- Lack of access to food, e.g., economic constraints, cultural or religious practices, restricting food given to elderly and/or children
- Food- and nutrition-related knowledge deficit concerning sufficient oral food/beverage intake
- Psychological causes, e.g., depression or disordered eating

**Signs/Symptoms (Defining Characteristics)**
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
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</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td></td>
</tr>
<tr>
<td>Anthropometric Measurements</td>
<td></td>
</tr>
<tr>
<td>Physical Examination Findings</td>
<td>• Dry skin, dry mucous membranes, poor skin turgor</td>
</tr>
<tr>
<td></td>
<td>• Weight loss, insufficient growth velocity</td>
</tr>
<tr>
<td>Food/Nutrition History</td>
<td>Reports or observations of:</td>
</tr>
<tr>
<td></td>
<td>• Insufficient intake of energy or high-quality protein from diet when compared to requirements</td>
</tr>
<tr>
<td></td>
<td>• Economic constraints that limit food availability</td>
</tr>
</tbody>
</table>

**Client History**
- Conditions associated with a diagnosis or treatment of catabolic illness such as AIDS, tuberculosis, anorexia nervosa, sepsis, or infection from recent surgery), depression, acute or chronic pain
- Protein and/or nutrient malabsorption
- Excessive consumption of alcohol or other drugs that reduce hunger
- Medications that cause anorexia

**References:**
Definition
Oral food/beverage intake that exceeds energy expenditure, established reference standards, or recommendations based upon physiological needs. Exception: when weight gain is desired.

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Harmful beliefs/attitudes about food, nutrition, and nutrition-related topics
- Food- and nutrition-related knowledge deficit
- Lack of access to healthful food choices, e.g., food provided by caregiver
- Lack of value for behavior change, competing values
- Inability to limit or refuse offered foods
- Lack of food planning, purchasing, and preparation skills
- Medications that increase appetite, e.g., steroids, antidepressants
- Unwilling or uninterested in reducing intake

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity:

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td>• Variable high blood glucose levels</td>
</tr>
<tr>
<td></td>
<td>• Abnormal Hgb A1C</td>
</tr>
<tr>
<td>Anthropometric Measurements</td>
<td>• Weight gain not attributed to fluid retention or normal growth</td>
</tr>
<tr>
<td>Physical Exam Findings</td>
<td>• Evidence of acanthosis nigricans</td>
</tr>
</tbody>
</table>

Food/Nutrition History
Reports or observations of:
- Intake of calorically dense foods/beverages (juice, soda, or alcohol) at meals and/or snacks
- Intake of large portions of foods/beverages, food groups, or specific food items
- Intake that exceeds estimated or measured energy needs
- Highly variable daily caloric intake
- Binge eating patterns
- Frequent, excessive intake of fast food or restaurant food

Client History
- Conditions associated with a diagnosis or treatment, e.g., obesity, overweight, or metabolic syndrome, depression, anxiety disorder
- Resting metabolic rate measurement reflecting excess intake, e.g., respiratory quotient > 1.0

References:
INADEQUATE INTAKE FROM ENTERAL/PARENTERAL (EN/TPN) NUTRITION INFUSION (NI-2.3)

Definition
Enteral or parenteral infusion that provides fewer calories or nutrients compared to established reference standards or recommendations based upon physiological needs. Exception: when the goal is weight loss or during end of life care.

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:
- Altered absorption or metabolism of nutrients, e.g., medications
- Food and nutrition-related knowledge deficit (patient/client, caregiver, supplier), e.g., incorrect formula/formulation given such as wrong enteral feeding, or missing component of TPN
- Lack of, compromised, or incorrect access for delivering EN/TPN
- Increased biological demand of nutrients, e.g., accelerated growth, wound healing, chronic infection, multiple fractures
- Intolerance of EN/TPN
- Infusion volume not reached or schedule for infusion interrupted

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td>• Cholesterol &lt; 160 mg/dL (4.16 mmol/L)</td>
</tr>
<tr>
<td></td>
<td>• Vitamin/mineral abnormalities</td>
</tr>
<tr>
<td></td>
<td>• Calcium &lt; 9.2 mg/dL (2.3 mmol/L)</td>
</tr>
<tr>
<td></td>
<td>• Vitamin K—Prothrombin time (PT), partial thromboplastin time (PTT)</td>
</tr>
<tr>
<td></td>
<td>• Copper &lt; 70 µg/dL (11 µmol/L)</td>
</tr>
<tr>
<td></td>
<td>• Zinc &lt; 78 µg/dL (12 µmol/L)</td>
</tr>
<tr>
<td></td>
<td>• Iron &lt; 50 µg/dL (9 nmol/L), Iron binding capacity &lt; 250 µg/dL (44.8 µmol/L)</td>
</tr>
<tr>
<td>Physical Exam Findings</td>
<td>• Clinical evidence of vitamin/mineral deficiency (e.g., hair loss, bleeding gums, pale nail beds, neurologic changes)</td>
</tr>
<tr>
<td></td>
<td>• Evidence of dehydration, e.g., dry mucous membranes, poor skin turgor</td>
</tr>
<tr>
<td></td>
<td>• Loss of skin integrity or delayed wound healing</td>
</tr>
<tr>
<td></td>
<td>• Loss of muscle mass and/or subcutaneous fat</td>
</tr>
<tr>
<td></td>
<td>• Nausea, vomiting, diarrhea</td>
</tr>
<tr>
<td>Food/Nutrition History</td>
<td>• Observation or reports of:</td>
</tr>
<tr>
<td></td>
<td>• Inadequate EN/TPN volume compared to estimated or measured (indirect calorimetry) requirements</td>
</tr>
<tr>
<td></td>
<td>• Metabolic cart/indirect calorimetry measurement, e.g., respiratory quotient &lt; 0.7</td>
</tr>
<tr>
<td>Client History</td>
<td>• Conditions associated with a diagnosis or treatment of, e.g., intestinal resorption, Crohn’s disease, HIV/AIDS, burns, decubitus ulcers, pre-term birth, malnutrition</td>
</tr>
<tr>
<td></td>
<td>• Feeding tube or venous access in wrong position or removed</td>
</tr>
<tr>
<td></td>
<td>• Altered capacity for desired levels of physical activity or exercise, easy fatigue with increased activity</td>
</tr>
</tbody>
</table>

References:
EXCESSIVE INTAKE FROM ENTERAL/PARENTERAL NUTRITION (NI-2.4)

Definition
Enteral or parenteral infusion that provides more calories or nutrients compared to established reference standards or recommendations based upon physiological needs.

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:
- Physiologic causes, e.g., decreased needs related to low activity levels with critical illness or organ failure
- Food- and nutrition-related knowledge deficit on the part of the caregiver, patient/client or clinician

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td>• Elevated BUN/creatinine ratio (protein)</td>
</tr>
<tr>
<td></td>
<td>• Hyperglycemia (carbohydrate)</td>
</tr>
<tr>
<td></td>
<td>• Hypercapnia</td>
</tr>
<tr>
<td></td>
<td>• Elevated liver enzymes</td>
</tr>
<tr>
<td>Anthropometric Measurements</td>
<td>• Weight gain in excess of lean tissue accretion</td>
</tr>
<tr>
<td>Physical Examination Findings</td>
<td>• Edema with excess fluid administration</td>
</tr>
<tr>
<td>Food/Nutrition History</td>
<td>Report or observation of:</td>
</tr>
<tr>
<td></td>
<td>• Documented intake from enteral or parenteral nutrients that is consistently above recommended intake for carbohydrate, protein, and fat (e.g., 36 kcal/kg for well, active adults, 25 kcal/kg or as measured by indirect calorimetry for critically ill adults, 0.8 g/kg protein for well adults, 1.5 g/kg protein for critically ill adults, 4 mg/kg/minute of dextrose for critically ill adults, 1.2 g/kg lipid for adults, or 3 g/kg for children)*</td>
</tr>
</tbody>
</table>

* When entering weight (i.e., gram) information into the medical record, use institution or Joint Commission Accreditation of Healthcare Organizations approved abbreviation list.

References:
INAPPROPRIATE INFUSION OF ENTERAL OR PARENTERAL NUTRITION (NI-2.5)

Use with caution—only after discussion with other health team members

Definition
Enteral or parenteral infusion that provides either fewer or more calories and/or nutrients or is of the wrong composition or type, is not warranted because the patient/client is able to tolerate an enteral intake, or is unsafe because of the potential for sepsis or other complications

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:
- Physiologic causes, e.g., improvement in patient/client status, allowing return to total or partial oral diet; changes in the course of disease resulting in changes in nutrient requirements
- Product or knowledge deficit on the part of the caregiver or clinician
- End of life care if patient/client or family do not desire nutrition support

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Biochemical Data</strong></td>
<td>• Abnormal liver function tests in patient/client on long term (more than 3-6 weeks) feeding</td>
</tr>
<tr>
<td></td>
<td>• Abnormal levels of markers specific for various nutrients, e.g., hyperphosphatemia in patient/client receiving feedings with a high phosphorus content; hypokalemia in patient/client receiving feedings with low potassium content</td>
</tr>
<tr>
<td><strong>Anthropometric Measurements</strong></td>
<td>• Weight gain in excess of lean tissue accretion</td>
</tr>
<tr>
<td></td>
<td>• Weight loss</td>
</tr>
<tr>
<td><strong>Physical Examination Findings</strong></td>
<td>• Edema with excess fluid administration</td>
</tr>
<tr>
<td></td>
<td>• Complications such as fatty liver in the absence of other causes</td>
</tr>
<tr>
<td></td>
<td>• Loss of subcutaneous fat and muscle stores</td>
</tr>
</tbody>
</table>

Food/Nutrition History
Support or observation of:
- Documented intake from enteral or parenteral nutrients that is consistently above or below recommended intake for carbohydrate, protein, and/or fat — especially related to patient/client’s ability to consume an oral diet that meets needs at this point in time
- Documented intake of other nutrients that is consistently above or below that recommended
- Nausea, vomiting, diarrhea, high gastric residual volume

Client History
- History of enteral or parenteral nutrition intolerance

References:
INADEQUATE FLUID INTAKE (NI-3.1)

Definition
Lower intake of fluid-containing foods or substances compared to established reference standards or recommendations based upon physiological needs.

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Physiologic causes, e.g., increased fluid needs due to climate/temperature change; increased exercise or conditions leading to increased fluid losses; fever causing increased insensible losses, decreased thirst sensation, use of drugs that reduce thirst
- Lack of access to fluid, e.g., economic constraints, cultural or religious practices, inability to access fluid independently (such as elderly or children)
- Food- and nutrition-related knowledge deficit
- Psychological causes, e.g., depression or disordered eating; dementia resulting in decreased recognition of thirst

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Biochemical Data</strong></td>
<td>• Plasma or serum osmolality greater than 290 mOsm/kg</td>
</tr>
<tr>
<td></td>
<td>• ↑ BUN, ↑ Na</td>
</tr>
<tr>
<td><strong>Anthropometric Measurements</strong></td>
<td>• Acute weight loss</td>
</tr>
<tr>
<td><strong>Physical Examination Findings</strong></td>
<td>• Dry skin and mucous membranes, poor skin turgor</td>
</tr>
<tr>
<td></td>
<td>• Urine output &lt;30 mL/hr</td>
</tr>
<tr>
<td><strong>Food/Nutrition History</strong></td>
<td>Report or observation of:</td>
</tr>
<tr>
<td></td>
<td>• Insufficient intake of fluid when compared to requirements</td>
</tr>
<tr>
<td></td>
<td>• Thirst</td>
</tr>
<tr>
<td></td>
<td>• Difficulty swallowing</td>
</tr>
</tbody>
</table>

References:
**INTAKE DOMAIN • Fluid Intake**

**EXCESSIVE FLUID INTAKE (NI-3.2)**

**Definition**
Higher intake of fluid compared to established reference standards or recommendations based upon physiological needs

**Etiology** *(Cause/Contributing Risk Factors)*
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiologic, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Physiologic causes, e.g., decreased fluid losses due to kidney, liver or cardiac failure; diminished water and sodium losses due to changes in exercise or climate, syndrome of inappropriate antidiuretic hormone (SIADH)
- Food- and nutrition-related knowledge deficit
- Psychological causes, e.g., depression or disordered eating

**Signs/Symptoms** *(Defining Characteristics)*
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Biochemical Data</strong></td>
<td>• Lowered plasma osmolarity (270-280 mOsm/kg), only if positive fluid balance is in excess of positive salt balance</td>
</tr>
<tr>
<td><strong>Anthropometric Measurements</strong></td>
<td>• Decreased serum sodium in SIADH</td>
</tr>
<tr>
<td><strong>Physical Examination Findings</strong></td>
<td>• Edema in the skin of the legs, sacral area, or diffusely; weeping of fluids from lower legs</td>
</tr>
<tr>
<td></td>
<td>• Ascites</td>
</tr>
<tr>
<td></td>
<td>• Pulmonary edema as evidenced by shortness of breath, orthopnea, crackles or rales</td>
</tr>
<tr>
<td><strong>Food/Nutrition History</strong></td>
<td>Report or observation of:</td>
</tr>
<tr>
<td></td>
<td>• Fluid intake in excess of recommended intake</td>
</tr>
<tr>
<td></td>
<td>• Excessive salt intake</td>
</tr>
<tr>
<td></td>
<td>• Inability to tolerate solid foods necessitating a liquid diet</td>
</tr>
</tbody>
</table>

**Client History**
- Conditions associated with a diagnosis or treatment, e.g., end stage renal disease, nephrotic syndrome, heart failure, or liver disease
- Nausea, vomiting, anorexia, headache, muscle spasms, convulsions, coma related to SIADH
- Shortness of breath or dyspnea with exertion or at rest
- Providing medications in large amounts of fluid
- Use of drugs that impair fluid excretion

**References:**
**INADEQUATE BIOACTIVE SUBSTANCE INTAKE (NI-4.1)**

**Definition**
Lower intake of bioactive substances containing foods or substances compared to established reference standards or recommendations based upon physiological needs

**Etiology** *(Cause/Contributing Risk Factors)*
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Food- and nutrition-related knowledge deficit
- Limited access to food-containing substance
- Altered GI function, e.g., pain or discomfort

**Signs/Symptoms** *(Defining Characteristics)*
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
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<tbody>
<tr>
<td>Biochemical Data</td>
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</tr>
<tr>
<td>Anthropometric Measurements</td>
<td></td>
</tr>
<tr>
<td>Physical Exam Findings</td>
<td></td>
</tr>
<tr>
<td>Food/Nutrition History</td>
<td>Observations or reports of:</td>
</tr>
</tbody>
</table>

- Low intake of plant foods containing:
  - Soluble fiber, e.g., psyllium (↓ total and LDL cholesterol)
  - Soy protein (↓ total and LDL cholesterol)
  - β-glucan, e.g., whole oat products (↓ total and LDL cholesterol)
  - Plant sterol and stanol esters, e.g., fortified margarines (↓ total and LDL cholesterol)
  - Lack of available foods/products with bioactive substance in markets

**Client History**
- Conditions associated with a diagnosis or treatment, e.g., cardiovascular disease, elevated cholesterol
- Discomfort or pain associated with intake of foods rich in bioactive substances, e.g., soluble fiber, β-glucan, soy protein

**Reference:**
EXCESSIVE BIOACTIVE SUBSTANCE INTAKE (NI-4.2)

Definition
Higher intake of bioactive substances other than traditional nutrients, such as functional foods, bioactive food components, dietary supplements, or food concentrates compared to established reference standards or recommendations based upon physiological needs.

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:
- Food- and nutrition-related knowledge deficit
- Contamination, misname, mislabel, misuse, recent brand change, recent dose increase, recent formulation change of substance consumed
- Frequent intake of food containing bioactive substance
- Altered GI function, e.g., pain or discomfort

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

Nutrition Assessment Category | Potential Indicators of this Nutrition Diagnosis (one or more must be present)
--- | ---
Biochemical Data | - Lab values indicating excessive intake of the specific substance, such as rapid drop in cholesterol from intake of stanol or sterol esters in combination with a statin drug
- Increased hepatic enzyme reflecting hepatocellular damage

Anthropometric Measurements | - Weight loss as a result of malabsorption or maldigestion

Physical Exam Findings | - Constipation or diarrhea related to excessive intake
- Neurologic changes, e.g., anxiety, mental status changes
- Cardiovascular changes, e.g., heart rate, EKG, blood pressure

Food/Nutrition History | Observations or reports:
- High intake of plant foods containing:
  - Soy protein (↓ total and LDL cholesterol)
  - β-glucan, e.g., whole oat products (↓ total and LDL cholesterol)
  - Plant sterol and stanol esters, e.g., fortified margarines (↓ total and LDL cholesterol) or other foods based upon dietary substance, concentrate, metabolite, constituent, extract or combination
  - Substances which interfere with digestion or absorption of foodstuffs
  - Ready access to available foods/products with bioactive substance, e.g., as from dietary supplement vendors

Client History | Conditions associated with a diagnosis or treatment, e.g., cardiovascular disease, elevated cholesterol, hypertension
- Discomfort or pain associated with intake of foods rich in bioactive substances, e.g., soluble fiber, β-glucan, soy protein
- Attempts to use supplements or bioactive substances for weight loss, treat constipation, prevent or cure chronic or acute disease

References:
**EXCESSIVE ALCOHOL INTAKE (NI-4.3)**

**Definition**
Intake above the suggested limits for alcohol

**Etiology (Cause/Contributing Risk Factors)**
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems.

- Harmful beliefs/attitudes about food, nutrition, and nutrition-related topics
- Food- and nutrition-related knowledge deficit
- Lack of value for behavior change, competing values
- Alcohol addiction

**Signs/Symptoms (Defining Characteristics)**
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td>Elevated aspartate aminotransferase (AST), gamma-glutamyl transferase (GGT), carbohydrate-deficient transferrin, mean corpuscular volume, blood alcohol levels</td>
</tr>
<tr>
<td>Anthropometric Measurements</td>
<td></td>
</tr>
<tr>
<td>Physical Exam Findings</td>
<td></td>
</tr>
<tr>
<td>Food/Nutrition History</td>
<td>Reports or observations of:</td>
</tr>
<tr>
<td></td>
<td>Intake of &gt; 2 drinks/day (men) (1 drink = 5 oz. wine, 12 oz beer, 1 oz. distilled alcohol)</td>
</tr>
<tr>
<td></td>
<td>Intake of &gt; 1 drink/day (women) (1 drink = 5 oz. wine, 12 oz beer, 1 oz. distilled alcohol)</td>
</tr>
<tr>
<td></td>
<td>Binge drinking</td>
</tr>
<tr>
<td></td>
<td>Consumption of any alcohol when contraindicated</td>
</tr>
</tbody>
</table>

**Client History**
- Conditions associated with a diagnosis or treatment, e.g., severe hypertriglyceridemia, elevated blood pressure, depression, liver disease, pancreatitis
- New medical diagnosis or change in existing diagnosis or condition
- History of excessive alcohol intake
- Giving birth to an infant with fetal alcohol syndrome
- Drinking during pregnancy despite knowledge of risk
- Unexplained falls

Reference:
INCREASED NUTRIENT NEEDS (SPECIFY) (NI-5.1)

Definition
Increased need for a specific nutrient compared to established reference standards or recommendations based upon physiological needs

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Altered absorption or metabolism of nutrient, e.g., from medications
- Compromise of organs related to GI function, e.g., pancreas, liver
- Decreased functional length of intestine, e.g., short bowel syndrome
- Decreased or compromised function of intestine, e.g., celiac disease, Crohn’s disease
- Food- and nutrition-related knowledge deficit
- Increased demand of nutrient, e.g., accelerated growth, wound healing, chronic infection

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td>• Decreased cholesterol &lt; 160 mg/dL, albumin, prealbumin, C-reactive protein, indicating increased stress and increased metabolic needs</td>
</tr>
<tr>
<td></td>
<td>• Electrolyte/mineral (e.g., potassium, magnesium, phosphorus) abnormalities</td>
</tr>
<tr>
<td></td>
<td>• Urinary or fecal losses of specific or related nutrient (e.g., fecal fat, d-xylose test)</td>
</tr>
<tr>
<td></td>
<td>• Vitamin and/or mineral deficiency</td>
</tr>
<tr>
<td>Anthropometric Measurements</td>
<td>• Growth failure, based on National Center for Health Statistics (NCHS) growth standards and fetal growth failure</td>
</tr>
<tr>
<td></td>
<td>• Unintentional weight loss of 5% in 1 month or 10% in 6 months</td>
</tr>
<tr>
<td></td>
<td>• Underweight (BMI &lt; 18.5)</td>
</tr>
</tbody>
</table>

Physical Examination Findings
• Clinical evidence of vitamin/mineral deficiency (e.g., hair loss, bleeding gums, pale nail beds)
• Loss of skin integrity or delayed wound healing
• Loss of muscle mass, subcutaneous fat

Food/Nutrition History
Observation or reports of:
• Inadequate intake of foods/supplement containing needed nutrient as compared to estimated requirements
• Intake of foods that do not contain sufficient quantities of available nutrient (e.g., overprocessed, overcooked, or stored improperly)
• Food and nutrition-related knowledge deficit (e.g., lack of information, incorrect information or noncompliance with intake of needed nutrient)

Client History
• Fever
• Conditions associated with a diagnosis or treatment, e.g., intestinal resection, Crohn’s disease, HIV/AIDS, burns, pressure ulcers, pre-term birth, malnutrition
• Medications affecting absorption or metabolism of needed nutrient

References:
EVIDENT PROTEIN-ENERGY MALNUTRITION (NI-5.2)

**Definition**
Inadequate intake of protein and/or energy over prolonged periods of time resulting in loss of fat stores and/or muscle wasting

**Etiology (Cause/Contributing Risk Factors)**
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:
- Physiologic causes, e.g., altered nutrient needs due to prolonged catabolic illness, malabsorption
- Lack of access to food, e.g., economic constraints, cultural or religious practices, restricting food given to elderly and/or children
- Food- and nutrition-related knowledge deficit, e.g., avoidance of high quality protein foods
- Psychological causes, e.g., depression or eating disorders

**Signs/Symptoms (Defining Characteristics)**
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity:

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Biochemical Data</strong></td>
<td>• Normal serum albumin level (uncomplicated malnutrition)</td>
</tr>
<tr>
<td></td>
<td>• Albumin &lt; 3.4 mg/dL (disease/trauma-related malnutrition)</td>
</tr>
<tr>
<td><strong>Anthropometric Measurements</strong></td>
<td>• BMI &lt; 18.5 indicates underweight</td>
</tr>
<tr>
<td></td>
<td>• Failure to thrive, e.g., failure to attain desirable growth rates</td>
</tr>
<tr>
<td></td>
<td>• Inadequate maternal weight gain</td>
</tr>
<tr>
<td></td>
<td>• Weight loss of &gt; 10% in 6 months or 5% in 1 month</td>
</tr>
<tr>
<td></td>
<td>• Underweight with muscle wasting</td>
</tr>
<tr>
<td></td>
<td>• Normal or slightly underweight, stunted growth in children</td>
</tr>
</tbody>
</table>

**Physical Exam Findings**
- Uncomplicated malnutrition: Thin, wasted appearance; severe muscle wasting; minimal body fat; sparse, thin, easily pluckable hair; dry, thin skin; obvious bony prominences, occipital wasting; lowered body temperature, blood pressure, heart rate; changes in hair or nails consistent with insufficient protein intake
- Disease/trauma-related malnutrition: Thin to normal appearance, with peripheral edema, ascites or anasarca; some muscle wasting with retention of some body fat; enlarged fatty liver; dyspigmentation of hair (flag sign) and skin
- Delayed wound healing

**Food/Nutrition History**
- Reports or observations of:
  - Insufficient energy intake from diet compared to estimated or measured RMR
  - Insufficient intake of high-quality protein when compared to requirements
  - Food avoidance and/or lack of interest in food

**Client History**
- Chronic or acute disease or trauma, geographic location and socioeconomic status associated with altered nutrient intake of indigenous phenomenon
- Severe protein and/or nutrient malabsorption (e.g. extensive bowel resection)
- Excessive consumption of alcohol or other drugs that reduce hunger

**References:**
**INADEQUATE PROTEIN-ENERGY INTAKE (NI-5.3)**

**Definition**
Inadequate intake of protein and/or energy compared to established reference standards or recommendations based upon physiological needs of short or recent duration.

**Etiology (Cause/Contributing Risk Factors)**
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems.

- Short-term physiologic causes, e.g., increased nutrient needs due to catabolic illness, malabsorption
- Recent lack of access to food, e.g., economic constraints, cultural or religious practices, restricting food given or food selected
- Food- and nutrition-related knowledge deficit, e.g., avoidance of all fats for new dieting pattern
- Recent onset of psychological causes, e.g., depression or eating disorders

**Signs/Symptoms (Defining Characteristics)**
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Biochemical Data</strong></td>
<td>Normal albumin (in the setting of normal liver function despite decrease protein-energy intake)</td>
</tr>
<tr>
<td><strong>Anthropometric Measurements</strong></td>
<td>inadequate maternal weight gain (mild but not severe)</td>
</tr>
<tr>
<td></td>
<td>Weight loss of 5-7% over past 3 months in adults, any weight loss in children</td>
</tr>
<tr>
<td></td>
<td>Normal or slightly underweight</td>
</tr>
<tr>
<td></td>
<td>Growth failure in children</td>
</tr>
<tr>
<td><strong>Physical Exam Findings</strong></td>
<td>Slow wound healing in pressure ulcer or surgical patient/client</td>
</tr>
</tbody>
</table>

**Food/Nutrition History**
Reports or observations of:
- Insufficient energy intake from diet compared to estimated or measured resting metabolic rate (RMR) or recommended levels
- Restriction or omission of food groups such as dairy or meat group foods (protein); bread or milk group foods (energy)
- Recent food avoidance and/or lack of interest in food
- Lack of ability to prepare meals

**Client History**
- Conditions associated with a diagnosis or treatment of mild protein-energy malnutrition, recent illness, e.g. pulmonary or cardiac failure, Iha, infection, surgery
- Nutrient malabsorption (e.g. bariatric surgery, diarrhea, steatorrhea)
- Excessive consumption of alcohol or other drugs that reduce hunger
- Patient/client reports of hunger in the face of inadequate access to food supply
- Patient/client reports lack of ability to prepare meals
- Patient/client reports lack of funds for purchase of appropriate foods

**References:**
DECREASED NUTRIENT NEEDS (SPECIFY) (NI-5.4)

Definition
Decreased need for a specific nutrient compared to established reference standards or recommendations based upon physiological needs

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Renal dysfunction
- Liver dysfunction
- Altered cholesterol metabolism/regulation
- Heart failure
- Food intolerances, e.g., irritable bowel syndrome

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

### Nutrition Assessment Category Potential Indicators of this Nutrition Diagnosis (one or more must be present)

#### Biochemical Data
- Cholesterol > 200 mg/dL (5.2 mmol/L), LDL cholesterol > 100 mg/dL (2.59 mmol/L), HDL cholesterol < 40 mg/dL (1.036 mmol/L), triglycerides > 150 mg/dL (1.695 mmol/L)
- Phosphorus > 5.5 mg/dL (1.78 mmol/L)
- Glomerular filtration rate (GFR) < 90 mL/min/1.73 m²
- Elevated BUN, Cr, potassium
- Liver function tests indicating severe liver disease

#### Anthropometric Measurements

#### Physical Exam Findings
- Edema/fluid retention
- Interdialytic weight gain greater than expected

#### Food/Nutrition History
Reports or observations of:
- Intake higher than recommended for fat, phosphorus, sodium, protein, fiber

#### Client History
Conditions associated with a diagnosis or treatment that require a specific type and/or amount of nutrient, e.g.,
- Cardiovascular disease (fat), early renal disease (protein, phosphorus), ERSD (phosphorus, sodium, potassium, fluid), advanced liver disease (protein), heart failure (sodium, fluid), irritable bowel disease/Crohn’s disease flare up (fiber)
- Diagnosis of hypertension, confusion related to liver disease

References:
IMBALANCE OF NUTRIENTS (NI-5.5)

**Definition**
An undesirable combination of ingested nutrients, such that the amount of one nutrient ingested interferes with or alters absorption and/or utilization of another nutrient.

**Etiology (Cause/Contributing Risk Factors)**
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Consumption of high dose nutrient supplements
- Food- and nutrition-related knowledge deficit
- Harmful beliefs/attitudes about food, nutrition, and nutrition-related information
- Food faddism

**Signs/Symptoms (Defining Characteristics)**
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td></td>
</tr>
<tr>
<td>Anthropometric Data</td>
<td></td>
</tr>
<tr>
<td>Physical Exam Findings</td>
<td></td>
</tr>
<tr>
<td>Food/Nutrition History</td>
<td>Reports or observations of:</td>
</tr>
<tr>
<td></td>
<td>• High intake of iron supplements (↓ zinc absorption)</td>
</tr>
<tr>
<td></td>
<td>• High intake of zinc supplements (↓ copper status)</td>
</tr>
<tr>
<td></td>
<td>• High intake of manganese (↓ iron status)</td>
</tr>
<tr>
<td>Client History</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Diarrhea or constipation (iron supplements)</td>
</tr>
<tr>
<td></td>
<td>• Epigastric pain, nausea, vomiting, diarrhea (zinc supplements)</td>
</tr>
<tr>
<td></td>
<td>• Contributes to the development of anemia (manganese supplements)</td>
</tr>
</tbody>
</table>

References:
INTAKE DOMAIN • Fat and Cholesterol

INADEQUATE FAT INTAKE (NI-51.1)

Definition
Lower fat intake compared to established reference standards or recommendations based upon physiological needs. Exception: when the goal is weight loss or during end of life care.

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Inappropriate food choices, e.g., economic constraints, cultural or religious practices, restricting food given to elderly and/or children, specific food choices
- Food- and nutrition-related knowledge deficit, e.g., prolonged adherence to a very low fat diet
- Psychological causes, e.g., depression or disordered eating

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td>• Triene:tetraene ratio &gt; 0.2</td>
</tr>
<tr>
<td>Anthropometric Measurements</td>
<td>• Weight loss if insufficient calories consumed</td>
</tr>
<tr>
<td>Physical Examination Findings</td>
<td>• Rough, scaly skin that becomes dermatitis with essential fatty acid deficiency</td>
</tr>
<tr>
<td>Food/Nutrition History</td>
<td>Report or observation of</td>
</tr>
<tr>
<td>Client History</td>
<td>• Intake of essential fatty acid containing foods consistently providing less than 10% of calories</td>
</tr>
<tr>
<td></td>
<td>• Conditions associated with a diagnosis or treatment, e.g., prolonged catabolic illness (e.g., AIDS, tuberculosis, anorexia nervosa, sepsis or severe infection from recent surgery)</td>
</tr>
<tr>
<td></td>
<td>• Severe fat malabsorption with bowel resection, pancreatic insufficiency, or hepatic disease accompanied by steatorrhea</td>
</tr>
</tbody>
</table>

References:

INTAKE DOMAIN • Fat and Cholesterol

EXCESSIVE FAT INTAKE (NI-51.2)

Definition
Higher fat intake compared to established reference standards or recommendations based upon physiological needs.

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Food- and nutrition-related knowledge deficit
- Harmful beliefs/attitudes about food, nutrition, and nutrition-related topics
- Lack of access to healthful food choices, e.g., food provided by caregiver
- Changes in taste and appetite or preference
- Lack of value for behavior change; competing values

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td>• Cholesterol &gt; 200 mg/dL (5.2 mmol/L), LDL cholesterol &gt; 100 mg/dL (2.59 mmol/L), HDL cholesterol &lt; 40 mg/dL (1.036 mmol/L), triglycerides &gt; 150 mg/dL (1.695 mmol/L)</td>
</tr>
<tr>
<td>Physical Examination Findings</td>
<td>• Evidence of xanthomas</td>
</tr>
<tr>
<td>Client History</td>
<td>• Evidence of skin lesions</td>
</tr>
<tr>
<td></td>
<td>• Elevated serum amylase and/or lipase</td>
</tr>
<tr>
<td></td>
<td>• Elevated liver function tests and/or total bilirubin</td>
</tr>
<tr>
<td></td>
<td>• Triene:tetraene ratio &gt; 0.4</td>
</tr>
<tr>
<td></td>
<td>• Fecal fat &gt; 7g/ 24 hours</td>
</tr>
</tbody>
</table>

References:
INTAKE DOMAIN • Fat and Cholesterol

EXCESSIVE FAT INTAKE (NI-51.2)

<table>
<thead>
<tr>
<th>Food/Nutrition History</th>
<th>Reports or observations of:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Frequent or large portions of high-fat foods</td>
<td></td>
</tr>
<tr>
<td>• Frequent food preparation with added fat</td>
<td></td>
</tr>
<tr>
<td>• Frequent consumption of high-risk lipids (i.e., saturated fat, trans fat, cholesterol)</td>
<td></td>
</tr>
<tr>
<td>• Report of foods containing fat above diet prescription</td>
<td></td>
</tr>
<tr>
<td>• Inadequate intake of essential lipids</td>
<td></td>
</tr>
</tbody>
</table>

| Client History | • Conditions associated with a diagnosis or treatment, e.g., hyperlipidemia, cystic fibrosis, angina, atherosclerosis, pancreatic, liver, and biliary diseases; post-transplantation |
|               | • Medication, e.g., pancreatic enzymes, cholesterol, or other lipid-lowering medications |
|               | • Diarrhea, cramping, steatorrhea, epigastric pain |
|               | • Family history of hyperlipidemia, atherosclerosis, or pancreatitis |

References:

INTAKE DOMAIN • Fat and Cholesterol

INAPPROPRIATE INTAKE OF FOOD FATS (NI-51.3)

Definition
Intake of wrong type or quality of food fats compared to established reference standards or recommendations based upon physiological needs.

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

• Food- and nutrition-related knowledge deficit
• Harmful beliefs/attitudes about food, nutrition, and nutrition-related topics
• Lack of access to healthful food choices, e.g., food provided by caregiver, pediatrics, homeless
• Changes in taste and appetite or preference
• Lack of value for behavior change; competing values

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td>• Cholesterol &gt;200 mg/dl (5.2 mmol/L), LDL cholesterol &gt; 100 mg/dl (2.59 mmol/L), HDL cholesterol &lt; 40 mg/dl (1.036 mmol/L), triglycerides &gt; 150 mg/dl (1.695 mmol/L)</td>
</tr>
<tr>
<td></td>
<td>• Elevated serum amylase and/or lipase</td>
</tr>
<tr>
<td></td>
<td>• Elevated liver function tests, total bilirubin, and C-reactive protein</td>
</tr>
<tr>
<td>Anthropometric Measurements</td>
<td>• Evidence of xanthomas</td>
</tr>
<tr>
<td></td>
<td>• Evidence of skin lesions</td>
</tr>
<tr>
<td>Physical Exam Findings</td>
<td>• Evidence of xanthomas</td>
</tr>
</tbody>
</table>

References:
INAPPROPRIATE INTAKE OF FOOD FATS (NI-51.3)

Food/Nutrition History

- Reports or observations of:
  - Frequent food preparation with added fat that is not of desired type for condition
  - Frequent consumption of fats that are undesirable for condition (i.e., saturated fat, trans fat, cholesterol, omega-6 fatty acids)
  - Inadequate intake of monounsaturated, polyunsaturated, or omega-3 fatty acids

Client History

- Conditions associated with a diagnosis or treatment of diabetes, cardiac diseases, obesity, liver or biliary disorders
- Diarrhea, cramping, steatorrhea, epigastric pain
- Family history of diabetes-related heart disease, hyperlipidemia, atherosclerosis, or pancreatitis
- Client desires to implement a Mediterranean-type diet

References:


INADEQUATE PROTEIN INTAKE (NI-52.1)

Definition

Lower intake of protein-containing foods or substances compared to established reference standards or recommendations based upon physiological needs

Etiology (Cause/Contributing Risk Factors)

Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Physiologic causes, e.g., increased nutrient needs due to prolonged catabolic illness, malabsorption, age or condition
- Lack of access to food, e.g., economic constraints, cultural or religious practices, restricting food given to elderly and/or children
- Food- and nutrition-related knowledge deficit
- Psychological causes, e.g., depression or disordered eating

Signs/Symptoms (Defining Characteristics)

A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

Nutrition Assessment Category Potential Indicators of this Nutrition Diagnosis (one or more must be present)

Biochemical Data

Anthropometric Measurements

Physical Examination Findings

Diet History

- Report or observation of:
  - Insufficient intake of protein to meet requirements
  - Cultural or religious practices that limit protein intake
  - Economic constraints that limit food availability
  - Prolonged adherence to a very low-protein weight loss diet

Client History

- Conditions associated with a diagnosis or treatment, e.g., severe protein malabsorption such as bowel resection

Reference:

EXCESSIVE PROTEIN INTAKE (NI-52.2)

Definition
Intake above the recommended level of protein compared to established reference standards or recommendations based upon physiological needs

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Liver dysfunction
- Renal dysfunction
- Harmful beliefs/attitudes about food, nutrition and nutrition-related topics
- Lack of access to specialized protein products
- Metabolic abnormality
- Food faddism

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Biochemical Data</strong></td>
<td>• Altered laboratory values e.g. ↑ BUN, ↓ glomerular filtration rate (altered renal status)</td>
</tr>
<tr>
<td><strong>Anthropometric Measurements</strong></td>
<td>• Growth stunting or failure based on National Center for Health Statistics growth charts (metabolic disorders)</td>
</tr>
<tr>
<td><strong>Physical Exam Findings</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Food/Nutrition History</strong></td>
<td>Reports or observations of:</td>
</tr>
<tr>
<td></td>
<td>• Higher than recommended total protein intake, e.g., early renal disease, advanced liver disease with confusion</td>
</tr>
<tr>
<td></td>
<td>• Inappropriate supplementation</td>
</tr>
<tr>
<td><strong>Client History</strong></td>
<td>• Conditions associated with a diagnosis or treatment, e.g., early renal disease or advanced liver disease with confusion</td>
</tr>
</tbody>
</table>

References:
INAPPROPRIATE INTAKE OF AMINO ACIDS (SPECIFY) (NI-52.3)

Definition
Intake that is more or less than recommended level and/or type of amino acids compared to established reference standards or recommendations based upon physiological needs.

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Liver dysfunction
- Renal dysfunction
- Harmful beliefs/attitudes about food, nutrition- and nutrition-related topics
- Misused specialized protein products
- Metabolic abnormality
- Food faddism
- Inborn errors of metabolism

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td>• Altered laboratory values, e.g., ↑ BUN, ↓ glomerular filtration rate (altered renal status); increased urinary 3-methylhistidine</td>
</tr>
<tr>
<td></td>
<td>• Elevated specific amino acids (inborn errors of metabolism)</td>
</tr>
<tr>
<td></td>
<td>• Uremia, azotemia (renal patients)</td>
</tr>
<tr>
<td></td>
<td>• Elevated homocysteine or ammonia</td>
</tr>
<tr>
<td>Anthropometric Measurements</td>
<td></td>
</tr>
<tr>
<td>Physical Exam Findings</td>
<td>• Physical or neurological changes (inborn errors of metabolism)</td>
</tr>
</tbody>
</table>

References:
INADEQUATE CARBOHYDRATE INTAKE (NI-53.1)

Definition
Lower intake of carbohydrate-containing foods or substances compared to established reference standards or recommendations based upon physiological needs

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Physiologic causes, e.g., increased energy needs due to increased activity level or metabolic change, malabsorption
- Lack of access to food, e.g., economic constraints, cultural or religious practices, restricting food given to elderly and/or children
- Food- and nutrition-related knowledge deficit
- Psychological causes, e.g., depression or disordered eating

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td></td>
</tr>
<tr>
<td>Anthropometric Measurements</td>
<td></td>
</tr>
<tr>
<td>Physical Examination Findings</td>
<td>Ketone smell on breath</td>
</tr>
<tr>
<td>Diet History</td>
<td>Report or observation of:</td>
</tr>
<tr>
<td></td>
<td>Carbohydrate intake below recommended amounts</td>
</tr>
<tr>
<td></td>
<td>Inability to independently consume foods/liquids, e.g., diminished mobility</td>
</tr>
<tr>
<td></td>
<td>in hand, wrist, or digits</td>
</tr>
<tr>
<td>Client History</td>
<td>Conditions associated with a diagnosis or treatment, e.g., pancreatic</td>
</tr>
<tr>
<td></td>
<td>insufficiency, hepatic disease, celiac disease, seizure disorder, carbohydrate</td>
</tr>
<tr>
<td></td>
<td>malabsorption, or low-carbohydrate diets</td>
</tr>
</tbody>
</table>

Reference:

EXCESSIVE CARBOHYDRATE INTAKE (NI-53.2)

Definition
Intake above the recommended level and type of carbohydrate compared to established reference standards or recommendations based upon physiological needs

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Physiologic causes requiring modified carbohydrate intake, e.g., diabetes mellitus, lactose deficiency, sucrase-isomaltase deficiency, aldolase-B deficiency
- Cultural or religious practices that interfere with the ability to reduce carbohydrate intake
- Food- and nutrition-related knowledge deficit, e.g., inability to access sufficient information concerning appropriate carbohydrate intake
- Food and nutrition compliance limitations, e.g., lack of willingness or failure to modify carbohydrate intake in response to recommendations from a dietitian or physician
- Psychological causes, e.g., depression or disordered eating

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td></td>
</tr>
<tr>
<td>Anthropometric Measurements</td>
<td></td>
</tr>
<tr>
<td>Physical Examination Findings</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hyperglycemia (fasting blood sugar &gt; 126 mg/dL)</td>
</tr>
<tr>
<td></td>
<td>Hemoglobin A1C &gt; 6%</td>
</tr>
<tr>
<td></td>
<td>Abnormal oral glucose tolerance test (2-hour postload glucose &gt; 200 mg/dL)</td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dental caries</td>
</tr>
<tr>
<td></td>
<td>Diarrhea in response to carbohydrate feeding</td>
</tr>
</tbody>
</table>

Reference:
INTEGUMENTARY SYSTEM

INTAKE DOMAIN • Carbohydrate and Fiber Intake

EXCESSIVE CARBOHYDRATE INTAKE (NI-53.2)

**Food/Nutrition History**

- Reports or observations of:
  - Cultural or religious practices that do not support modification of dietary carbohydrate intake
  - Economic constraints that limit availability of appropriate foods
  - Carbohydrate intake that is consistently above recommended amounts

**Client History**

- Conditions associated with a diagnosis or treatment, e.g., diabetes mellitus, inborn errors of carbohydrate metabolism, lactase deficiency, severe infection, sepsis, or obesity
- Chronic use of medications that cause hyperglycemia, e.g., steroids
- Pancreatic insufficiency resulting in reduced insulin production

**References:**


INTEGUMENTARY SYSTEM

INTAKE DOMAIN • Carbohydrate and Fiber Intake

INAPPROPRIATE INTAKE OF TYPES OF CARBOHYDRATES (SPECIFY) (NI-53.3)

**Definition**

Intake or the type or amount of carbohydrate that is above or below the established reference standards or recommendations based upon physiological needs

**Etiology** *(Cause/Contributing Risk Factors)*

Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Physiologic causes requiring careful use of modified carbohydrate, e.g., diabetes mellitus, metabolic syndrome, hypoglycemia, celiac disease, allergies, obesity
- Cultural or religious practices that interfere with the ability to regulate types of carbohydrate consumed
- Food- and nutrition-related knowledge deficit, e.g., inability to access sufficient information concerning more appropriate carbohydrate types and/or amounts
- Food and nutrition compliance limitations, e.g., lack of willingness or failure to modify carbohydrate intake in response to recommendations from a diettian, physician, or caregiver
- Psychological causes, e.g., depression or disordered eating

**Signs/Symptoms** *(Defining Characteristics)*

A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

**Nutrition Assessment Category**

| Biochemical Data | • Hypoglycemia or hyperglycemia documented on regular basis when compared with goal of maintaining glucose levels at or below 140 mg/dL throughout the day |
| Anthropometric Measurements |
| Physical Examination Findings |
INTAKE DOMAIN • Carbohydrate and Fiber Intake

INAPPROPRIATE INTAKE OF TYPES OF CARBOHYDRATES (SPECIFY) (NI-53.3)

Food/Nutrition History

Reports or observations of:
- Diarrhea in response to high refined carbohydrate intake
- Economic constraints that limit availability of appropriate foods
- Carbohydrate intake that is different from recommended types
- Allergic reactions to certain carbohydrate foods or food groups
- Limited knowledge of carbohydrate composition of foods or of carbohydrate metabolism

Client History

• Conditions associated with a diagnosis or treatment, e.g., diabetes mellitus, obesity, metabolic syndrome, hypoglycemia
• Chronic use of medications that cause altered glucose levels, e.g., steroids, antidepressants, antipsychotics

References:

INTAKE DOMAIN • Carbohydrate and Fiber Intake

INCONSISTENT CARBOHYDRATE INTAKE (NI-53.4)

Definition
Inconsistent timing of carbohydrate intake throughout the day, day-to-day, or a pattern of carbohydrate intake that is not consistent with recommended pattern based upon physiologic or medication needs

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiologic, psychosocial, situational, developmental, cultural, and/or environmental problems:
- Physiologic causes requiring careful timing and consistency in the amount of carbohydrate, e.g., diabetes mellitus, hypoglycemia
- Cultural, religious practices, or lifestyle factors that interfere with the ability to regulate timing of carbohydrate consumption
- Food- and nutrition-related knowledge deficit, e.g., inability to access sufficient information concerning more appropriate timing of carbohydrate intake
- Food and nutrition compliance limitations, e.g., lack of willingness or failure to modify carbohydrate timing in response to recommendations from a dietitian, physician, or caregiver
- Psychological causes, e.g., depression or disordered eating

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

Nutrition Assessment Category | Potential Indicators of this Nutrition Diagnosis (one or more must be present)
---|---
Biochemical Data | Hypoglycemia or hyperglycemia documented on regular basis associated with inconsistent carbohydrate intake
| Wide variations in blood glucose levels
Anthropometric Measurements | Physical Examination Findings
Food/Nutrition History | Reports or observations of:
| Economic constraints that limit availability of appropriate foods
| Carbohydrate intake that is different from recommended types or ingested on an irregular basis
**INTAKE DOMAIN - Carbohydrate and Fiber Intake**

**INCONSISTENT CARBOHYDRATE INTAKE (NI-53.4)**

**Client History**
- Conditions associated with a diagnosis or treatment, e.g., diabetes mellitus, obesity, metabolic syndrome, hypoglycemia
- Use of insulin or insulin secretagogues
- Chronic use of medications that cause altered glucose levels, e.g., steroids, antidepressants, antipsychotics

**References:**

**INADEQUATE FIBER INTAKE (NI-53.5)**

**Definition**
Lower intake of fiber-containing foods or substances compared to established reference standards or recommendations based upon physiological needs

**Etiology (Cause/Contributing Risk Factors)**
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:
- Lack of access to fiber-containing foods
- Food- and nutrition-related knowledge deficit
- Psychological causes, e.g., depression or disordered eating
- Prolonged adherence to a low-fiber or low-residue diet
- Difficulty chewing or swallowing high-fiber foods
- Economic constraints that limit availability of appropriate foods
- Inability or unwillingness to purchase or consume fiber-containing foods
- Inappropriate food preparation practices, e.g., reliance on overprocessed, overcooked foods

**Signs/Symptoms (Defining Characteristics)**
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

**Nutrition Assessment Category** | Potential Indicators of this Nutrition Diagnosis (one or more must be present)
--- | ---
Biochemical Data
Anthropometric Measurements
Physical Examination Findings
Food/Nutrition History Reports or observations of:
- Insufficient intake of fiber when compared to recommended amounts (38 g/day for men and 25 g/day for women; 21 g/d for women >50 years and 31 g/d for men >50 years)
INTAKE DOMAIN • Carbohydrate and Fiber Intake

INADEQUATE FIBER INTAKE (NI-53.5)

Client History

• Conditions associated with a diagnosis or treatment, e.g., ulcer disease, inflammatory bowel disease, or short bowel syndrome treated with a low-fiber diet
• Low stool volume

References:

EXCESSIVE FIBER INTAKE (NI-53.6)

Definition
Higher intake of fiber-containing foods or substances compared to recommendations based upon patient/client condition

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

• Food- and nutrition-related knowledge deficit about desirable quantities of fiber for individual condition
• Harmful beliefs or attitudes about food or nutrition-related topics, e.g., obsession with bowel frequency and habits
• Lack of knowledge about appropriate fiber intake for condition
• Poor dentition, GI stricture or dysmotility
• Food preparation or eating patterns that involve only high-fiber foods to the exclusion of other nutrient-dense foods

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

Nutrition Assessment Category | Potential Indicators of this Nutrition Diagnosis (one or more must be present)
--- | ---
Biochemical Data | Reports or observations of:
• Fiber intake higher than tolerated or generally recommended for current medical condition
Anthropometric Measurements | 
Physical Examination Findings | 
Food/Nutrition History | 
Client History | • Conditions associated with a diagnosis or treatment, e.g., ulcer disease, irritable bowel syndrome, inflammatory bowel disease, short bowel syndrome, diverticulitis, obstructive constipation, prolapsing hemorrhoids, gastrointestinal stricture, eating disorders, or mental illness with obsessive-compulsive tendencies
• Nausea, vomiting, excessive flatulence, diarrhea, abdominal cramping, high stool volume or frequency that causes discomfort to the individual, obstruction, phytobezoar
INTAKE DOMAIN - Carbohydrate and Fiber Intake

EXCESSIVE FIBER INTAKE (NI-53.6)

References:

INTAKE DOMAIN - Vitamin Intake

INADEQUATE VITAMIN INTAKE (SPECIFY) (NI-54.1)

Definition
Lower intake of vitamin-containing foods or substances compared to established reference standards or recommendations based upon physiological needs

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:
- Physiologic causes, e.g., increased nutrient needs due to prolonged catabolic illness, disease state, malabsorption, or medications
- Lack of access to food, e.g., economic constraints, cultural or religious practices, restricting food given to elderly and/or children
- Food- and nutrition-related knowledge deficit concerning food sources of vitamins
- Psychological causes, e.g., depression or eating disorders

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.
### INADEQUATE VITAMIN INTAKE (SPECIFY) (NI-54.1)

#### Nutritional Assessment Category
<table>
<thead>
<tr>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Biochemical Data</strong></td>
</tr>
<tr>
<td>• Vitamin A: serum retinol &lt; 10 µg/dL (0.35 µmol/L)</td>
</tr>
<tr>
<td>• Vitamin C: plasma concentrations &lt; 0.2 mg/dL (11.4 µmol/L)</td>
</tr>
<tr>
<td>• Vitamin E: plasma alpha-tocopherol &lt; 18 µg/g (41.8 µmol/L)</td>
</tr>
<tr>
<td>• Vitamin K: elevated prothrombin time; altered INR (without anti-coagulation therapy)</td>
</tr>
<tr>
<td>• Thiamin: erythrocyte transketolase activity &gt; 1.20 µg/mL/h</td>
</tr>
<tr>
<td>• Riboflavin – erythrocyte glutathione reductase &gt; 1.2 IU/gm hemoglobin</td>
</tr>
<tr>
<td>• Niacin: N’-methyl-nicotinamide excretion &lt; 5.8 µmol/day</td>
</tr>
<tr>
<td>• Vitamin B6: plasma pyridoxal 5’phosphate &lt;5 ng/mL (20 nmol/L)</td>
</tr>
<tr>
<td>• Vitamin B12: serum concentration &lt; 24.4 ng/dL (180 pmol/L); elevated homocysteine</td>
</tr>
<tr>
<td>• Folic acid: serum concentration &lt; 0.3 µg/dL (7 nmol/L); red cell folate &lt; 315 nmol/L</td>
</tr>
</tbody>
</table>

#### Anthropometric Measurements

<table>
<thead>
<tr>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Exam Findings</strong></td>
</tr>
<tr>
<td>• Vitamin A: night blindness, Bitot’s spots, xerophthalmia, follicular hyperkeratosis</td>
</tr>
<tr>
<td>• Vitamin C: follicular hyperkeratosis, petechiae, ecchymosis, coiled hairs, inflamed and bleeding gums, periocular hemorrhages, joint effusions, arthralgia, and impaired wound healing</td>
</tr>
<tr>
<td>• Vitamin D: widening at ends of long bones, rachitic rosary in children, rickets, osteomalacia</td>
</tr>
<tr>
<td>• Riboflavin: sore throat, hyperemia, edema of pharyngeal and oral mucous membranes, cheilosis, angular stomatitis, glossitis, seborrheic dermatitis, and normochromic, normocytic anemia with pure erythrocyte cytoplasia of the bone marrow</td>
</tr>
<tr>
<td>• Niacin: symmetrical, pigmented rash on areas exposed to sunlight, bright red tongue, pellagra</td>
</tr>
<tr>
<td>• Vitamin B6: seborrheic dermatitis, stomatitis, cheilosis, glossitis, confusion, depression</td>
</tr>
<tr>
<td>• Vitamin B12: tingling and numbness in extremities, diminished vibratory and position sense, motor disturbances including gait disturbances</td>
</tr>
</tbody>
</table>

* To convert conventional units to the Systeme International d’Unites (SI), Jays Clinical Services, Clinical Laboratory Software and Consulting web site used. Web site address: http://dwjay.tripod.com/conversion.html - Accessed August 12, 2005. See Young DS (Reference #5) for printed factor conversions.

### INADEQUATE VITAMIN INTAKE (SPECIFY) (NI-54.1)

#### Food/Nutrition History
<table>
<thead>
<tr>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reports or observations of:</strong></td>
</tr>
<tr>
<td>• Dietary history reflects inadequate intake of foods containing specific vitamins as compared to requirements or recommended level</td>
</tr>
<tr>
<td>• Dietary history reflects excessive consumption of foods that do not contain available vitamins, e.g., overprocessed, overcooked, or improperly stored foods</td>
</tr>
</tbody>
</table>

#### Client History
<table>
<thead>
<tr>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Conditions associated with a diagnosis or treatment, e.g., malabsorption as a result of celiac disease, short bowel syndrome, or inflammatory bowel disease</strong></td>
</tr>
<tr>
<td><strong>Certain environmental conditions, e.g., infants exclusively fed breast milk with limited exposure to sunlight (vitamin D)</strong></td>
</tr>
</tbody>
</table>

### References:
EXCESSIVE VITAMIN INTAKE (SPECIFY) (NI-54.2)

INTAKE DOMAIN • Vitamin Intake

Definition
Higher intake of vitamin-containing foods or substances compared to established reference standards or recommendations based upon physiological needs

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Physiologic causes, e.g., decreased nutrient needs due to prolonged immobility or chronic renal disease
- Access to foods and supplements in excess of needs, e.g., cultural or religious practices, inappropriate food and supplements given to pregnant women, elderly or children
- Food- and nutrition-related knowledge deficit concerning food and supplemental sources of vitamins
- Psychological causes, e.g., depression or eating disorders
- Accidental overdose from oral and supplemental forms, enteral or parenteral sources

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

Nutrition Assessment Category | Potential Indicators of this Nutrition Diagnosis (one or more must be present)
--- | ---
Biochemical Data | • Vitamin D: ionized calcium > 5.4 mg/dL (1.35 mmol/L) with elevated parathyroid hormone, normal serum calcium, and serum phosphorus > 2.6 mg/dL (0.84 mmol/L)
• Vitamin K: slowed prothrombin time or altered INR
• Niacin: N-methyl nicotinamide excretion > 5.8 µmol/day
• Vitamin B6: plasma pyridoxal 5’phosphate > 5 ng/mL (20 nmol/L)
• Vitamin A: serum retinol concentration > 60 µg/dL (2.09 µmol/L)

Anthropometric Measurements

Physical Exam Findings | • Vitamin A: changes in the skin and mucous membranes, dry lips (cheilitis), early-dryness of the nasal mucosa and eyes, later-dryness, erythema, scaling and peeling of the skin, hair loss, and nail fragility. Headache, nausea, and vomiting. Infants may have bulging fontanelle; children may develop bone alterations.
• Vitamin D: elevated serum calcium (hypercalcemia) and phosphorus (hyperphosphatemia) levels; calcification of soft tissues (calcinosis), including the kidney, lungs, heart, and even the tympanic membrane of the ear, which can result in deafness. Headache and nausea. Infants given excessive amounts of vitamin D may have gastrointestinal upset, bone fragility, and retarded growth.
• Vitamin K: hemolytic anemia in adults or severe jaundice in infants have been noted on rare occasions
• Niacin: histamine release which causes flushing, aggravation of asthma or liver disease

Food/Nutrition History | Reports or observations of:
• History or measured intake reflects excessive intake of foods and supplements containing vitamins as compared to estimated requirements, including fortified cereals, meal replacements, vitamin-mineral supplements, other dietary supplements (e.g., fish liver oils or capsules), tube feeding, and/or parenteral solutions
• Intake > Tolerable Upper Limits (UL) for vitamin A (as retinol ester, not as β-carotene) is 600 µg/d for infants and toddlers; 900 µg/d for children 4-8 yrs, 1,700 µg/d for children 9-13 yrs, 2,800 µg/d for children 14-18 yrs, and 3,000 µg/d for adults

Client History | • Conditions associated with a diagnosis or treatment, e.g., chronic liver or kidney diseases, heart failure, cancer

References:

Edition: 2006 96
## INADEQUATE MINERAL INTAKE (SPECIFY) (NI-55.1)

### Definition
Lower intake of mineral-containing foods or substances compared to established reference standards or recommendations based on physiological needs.

### Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Physiologic causes, e.g., increased nutrient needs due to prolonged catabolic illness, malabsorption, hyperexcretion, nutrient/drug and nutrient/nutrient interaction, growth and maturation
- Lack of access to food, e.g., economic constraints, cultural or religious practices, restricting food given to elderly and/or children
- Food- and nutrition-related knowledge deficit concerning food sources of minerals; misdiagnosis of lactose intolerance/lactase deficiency; perception of conflicting nutrition messages from health professionals, inappropriate reliance on supplements
- Psychological causes, e.g., depression or eating disorders
- Environmental causes, e.g., inadequately tested nutrient bioavailability of fortified foods, beverages and supplements, inappropriate marketing of fortified foods/beverages/supplements as a substitute for natural food source of nutrient(s)

### Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

### INADEQUATE MINERAL INTAKE (SPECIFY) (NI-55.1)

#### Biochemical Data
<table>
<thead>
<tr>
<th>Potential Indicators of This Nutrition Diagnosis (one or more must be present)*</th>
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</thead>
<tbody>
<tr>
<td>Calcium: bone mineral content (BMC) below the young adult mean. Hypocalciuria, serum 25(OH)D &lt; 32 ng/mL</td>
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<tr>
<td>Phosphorus &lt; 2.6 mg/dL (0.84 mmol/L)</td>
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<tr>
<td>Magnesium &lt; 1.8 mg/dL (0.7 mmol/L)</td>
</tr>
<tr>
<td>Iron: hemoglobin &lt; 130 g/L (males); &lt; 120 g/L (females)</td>
</tr>
<tr>
<td>Iodine: urinary excretion &lt; 100 µg/L (788 nmol/L)</td>
</tr>
<tr>
<td>Copper: serum copper &lt; 64 µg/dL (1.0 µmol/L)</td>
</tr>
</tbody>
</table>

#### Anthropometric Measurements
- Height loss

* To convert conventional units to the International System of Units (SI)

### References:
EXCESSIVE MINERAL INTAKE (SPECIFY) (NI-55.2)

Definition
Higher intake of mineral from foods, supplements, medications or water, compared to established reference standards or recommendations based upon physiological needs

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Food- and nutrition-related knowledge deficit
- Harmful beliefs/attitudes about food, nutrition, and nutrition-related topics
- Food faddism
- Accidental over-supplementation
- Overconsumption of a limited variety of foods
- Lack of knowledge about management of diagnosed genetic disorder that alters mineral homeostasis such as hemochromotosis (iron), Wilson’s Disease (copper)
- Lack of knowledge about management of diagnosed disease state that requires mineral restriction such as cholestatic liver disease (copper and manganese) and renal insufficiency (phosphorus, magnesium, potassium)

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

Nutrition Assessment Category

<table>
<thead>
<tr>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
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</thead>
<tbody>
<tr>
<td><strong>Biochemical Data</strong></td>
</tr>
<tr>
<td>Changes in appropriate laboratory values, such as</td>
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<tr>
<td>↑ TSH (iodine supplementation)</td>
</tr>
<tr>
<td>↓ HDL (zinc supplementation)</td>
</tr>
<tr>
<td>↑ serum ferritin and transferrin saturation (iron overload)</td>
</tr>
<tr>
<td>Hyperphosphatemia</td>
</tr>
<tr>
<td>Hypermagnesemia</td>
</tr>
<tr>
<td><strong>Anthropometric Measurements</strong></td>
</tr>
<tr>
<td><strong>Physical Exam Findings</strong></td>
</tr>
<tr>
<td>• Hair and nail changes (selenium)</td>
</tr>
<tr>
<td><strong>Food/Nutrition History</strong></td>
</tr>
<tr>
<td>Reports or observations of:</td>
</tr>
<tr>
<td>• High intake of foods or supplements containing minerals compared to DRIs</td>
</tr>
<tr>
<td>• Decreased appetite (zinc supplementation)</td>
</tr>
<tr>
<td><strong>Client History</strong></td>
</tr>
<tr>
<td>• GI disturbances (iron, magnesium, copper, zinc, selenium)</td>
</tr>
<tr>
<td>• Copper-deficiency anemia (zinc)</td>
</tr>
<tr>
<td>• Liver damage (copper, iron), enamel or skeletal fluorosis (fluoride)</td>
</tr>
</tbody>
</table>

References:
SWALLOWING DIFFICULTY (NC-1.1)

**Definition**
Impaired movement of food and liquid from the mouth to the stomach

**Etiology** (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Mechanical causes, e.g., inflammation, surgery, stricture, or oral, pharyngeal and esophageal tumors
- Motor causes, e.g., neurological or muscular disorders, such as, cerebral palsy, stroke, multiple sclerosis, scleroderma, prematurity

**Signs/Symptoms** (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td></td>
</tr>
<tr>
<td>Anthropometric Measurements</td>
<td></td>
</tr>
<tr>
<td>Physical Exam Findings</td>
<td>• Evidence of dehydration, e.g., dry mucous membranes, poor skin turgor</td>
</tr>
<tr>
<td>Food/Nutrition History</td>
<td>Observations or reports of:</td>
</tr>
<tr>
<td></td>
<td>• Coughing, choking, prolonged chewing, pouching of food, regurgitation, facial expression changes during eating, prolonged feeding time, drooling, noisy wet upper airway sounds, feeling of “food getting stuck,” pain while swallowing</td>
</tr>
<tr>
<td></td>
<td>• Decreased food intake</td>
</tr>
<tr>
<td></td>
<td>• Avoidance of foods</td>
</tr>
<tr>
<td></td>
<td>• Mealtime resistance</td>
</tr>
<tr>
<td>Client History</td>
<td>• Conditions associated with a diagnosis or treatment of dysphagia, achalasia</td>
</tr>
<tr>
<td></td>
<td>• Radiological findings, e.g., abnormal swallowing studies</td>
</tr>
<tr>
<td></td>
<td>• Repeated upper respiratory infections and or pneumonia</td>
</tr>
</tbody>
</table>

**Reference:**

CHEWING (MASTICATORY) DIFFICULTY (NC-1.2)

**Definition**
Impaired ability to bite or chew food in preparation for swallowing

**Etiology** (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Craniofacial malformations
- Oral surgery
- Neuromuscular dysfunction
- Partial or complete edentulism
- Soft tissue disease (primary or oral manifestations of a systemic disease)
- Xerostomia

**Signs/Symptoms** (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td></td>
</tr>
<tr>
<td>Anthropometric Measurements</td>
<td></td>
</tr>
<tr>
<td>Physical Exam Findings</td>
<td>• Missing teeth</td>
</tr>
<tr>
<td></td>
<td>• Alterations in cranial nerves V, VII, IX, X, XII</td>
</tr>
<tr>
<td></td>
<td>• Dry or cracked lips, tongue</td>
</tr>
<tr>
<td></td>
<td>• Oral lesions</td>
</tr>
<tr>
<td></td>
<td>• Impaired tongue movement</td>
</tr>
<tr>
<td></td>
<td>• Ill-fitting dentures or broken dentures</td>
</tr>
</tbody>
</table>
CHEWING (Masticatory) DIFFICULTY (NC-1.2)

**Client History**
- Conditions associated with a diagnosis or treatment, e.g., alcoholism; Alzheimer’s; head, neck or pharyngeal cancer; cerebral palsy; cleft lip/palate; oral soft tissue infections (e.g., candidiasis, leukoplakia); lack of developmental readiness; oral manifestations of systemic disease (e.g., rheumatoid arthritis, lupus, Crohn’s disease, pemphigus vulgaris, HIV, diabetes)
- Recent major oral surgery
- Wired jaw
- Chemotherapy with oral side effects
- Radiation therapy to oral cavity

**Food/Nutrition History**
- Reports of observations of:
  - Decreased intake of food
  - Alterations in food intake from usual
  - Decreased intake or avoidance of food difficult to form into a bolus, e.g., nuts, whole pieces of meat, poultry, fish, fruits, vegetables
  - Avoidance of foods of age-appropriate texture
  - Spitting food out or prolonged feeding time

---

References:
## Breatfeeding Difficulty (NC-1.3)

### Definition

Inability to sustain infant nutrition through breastfeeding

### Etiology (Cause/Contributing Risk Factors)

Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

**Infant:**
- Difficulty latching on, e.g., tight frenulum
- Poor sucking ability
- Oral pain
- Malnutrition/malabsorption
- Lethargy, sleepiness
- Irritability
- Swallowing difficulty

**Mother:**
- Painful breasts, nipples
- Breast or nipple abnormality
- Mastitis
- Perception of inadequate milk supply
- Lack of social, cultural, or environmental support

### Signs/Symptoms (Defining Characteristics)

A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td>Laboratory evidence of dehydration in infant</td>
</tr>
<tr>
<td>Anthropometric Measurements</td>
<td>Any weight loss or poor weight gain in infant</td>
</tr>
<tr>
<td>Physical Exam Findings</td>
<td>Frenulum abnormality (infant)</td>
</tr>
<tr>
<td>Food/Nutrition History</td>
<td>Coughing</td>
</tr>
<tr>
<td></td>
<td>Crying, latching on and off, pounding on breasts</td>
</tr>
<tr>
<td></td>
<td>Decreased feeding frequency/duration, early cessation of feeding, and/or feeding resistance</td>
</tr>
<tr>
<td></td>
<td>Infant lethargy</td>
</tr>
<tr>
<td></td>
<td>Hunger, lack of satiety after feeding</td>
</tr>
<tr>
<td></td>
<td>Fewer than six wet diapers in 24 hours</td>
</tr>
<tr>
<td></td>
<td>Infant vomiting or diarrhea</td>
</tr>
<tr>
<td></td>
<td>Observations or reports of (mother):</td>
</tr>
<tr>
<td></td>
<td>Small amount of milk when pumping</td>
</tr>
<tr>
<td></td>
<td>Lack of confidence in ability to breastfeed</td>
</tr>
<tr>
<td></td>
<td>Doesn’t hear infant swallowing</td>
</tr>
<tr>
<td></td>
<td>Concerns regarding mother’s choice to breastfeed/lack of support</td>
</tr>
<tr>
<td></td>
<td>Insufficient knowledge of breastfeeding or infant hunger/satiety signals</td>
</tr>
<tr>
<td></td>
<td>Lack of facilities or accommodations at place of employment or in community for breastfeeding</td>
</tr>
<tr>
<td>Client History</td>
<td>Conditions associated with a diagnosis or treatment (infant), e.g., cleft lip-palate, thrush, premature birth, malabsorption, infection</td>
</tr>
<tr>
<td></td>
<td>Conditions associated with a diagnosis or treatment (mother), e.g., mastitis, candidiasis, engorgement, history of breast surgery</td>
</tr>
</tbody>
</table>

### References:

ALTERED GASTROINTESTINAL (GI) FUNCTION (NC-1.4)

Definition
Changes in ability to digest or absorb nutrients

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Alterations in GI anatomical structure, e.g., gastric bypass, Roux en Y
- Changes in the GI tract motility, e.g., gastroparesis
- Compromised GI tract function, e.g., celiac disease, Crohn’s disease, infection, radiation therapy
- Compromised function of related GI organs, e.g., pancreas, liver
- Decreased functional length of the GI tract, e.g., short bowel syndrome

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td>Abnormal digestive enzyme and fecal fat studies</td>
</tr>
<tr>
<td></td>
<td>Abnormal hydrogen breath test, d-xylose test, stool culture, and gastric emptying and/or small bowel transit time</td>
</tr>
<tr>
<td>Anthropometric Measurements</td>
<td>Wasting due to malnutrition in severe cases</td>
</tr>
<tr>
<td>Physical Exam Findings</td>
<td>Decreased muscle mass</td>
</tr>
<tr>
<td></td>
<td>Abdominal distension</td>
</tr>
<tr>
<td></td>
<td>Increased (or sometimes decreased) bowel sounds</td>
</tr>
</tbody>
</table>

Food/Nutrition History
Observations or reports of:
- Avoidance or limitation of total intake or intake of specific foods/food groups due to GI symptoms, e.g., bloating, cramping, pain, diarrhea, steatorrhea (greasy, floating, foul-smelling stools) especially following ingestion of food
- Food and nutrition-related knowledge deficit, e.g., lack of information, incorrect information or noncompliance with modified diet or medication schedule

Client History
- Anorexia, nausea, vomiting, diarrhea, steatorrhea, constipation, abdominal pain
- Endoscopic or colonoscopic examination results, biopsy results
- Conditions associated with a diagnosis or treatment, e.g., malabsorption, malnutrition, steatorrhea, constipation, diverticulitis, Crohn’s disease, inflammatory bowel disease, cystic fibrosis, celiac disease, irritable bowel syndrome, infection
- Surgical procedures, e.g., esophagectomy, dilatation, gastrectomy, vagotomy, gastric bypass, bowel resections

Reference:
**IMPAIRED NUTRIENT UTILIZATION (NC-2.1)**

**Definition**
Changes in ability to absorb or metabolize nutrients and bioactive substances

**Etiology (Cause/Contributing Risk Factors)**
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Alterations in gastrointestinal anatomical structure
- Compromised function of the GI tract
- Compromised function of related GI organs, e.g., pancreas, liver
- Decreased functional length of the GI tract
- Metabolic disorders

**Signs/Symptoms (Defining Characteristics)**
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
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<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of the Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Biochemical Data</strong></td>
<td>• Abnormal digestive enzyme and fecal fat studies</td>
</tr>
<tr>
<td></td>
<td>• Abnormal hydrogen breath test, d-xylose test</td>
</tr>
<tr>
<td></td>
<td>• Abnormal tests for inborn errors of metabolism</td>
</tr>
<tr>
<td><strong>Anthropometric Measurements</strong></td>
<td>• Weight loss of 5% in 1 month, 10% in 6 months</td>
</tr>
<tr>
<td></td>
<td>• Growth stunting or failure</td>
</tr>
<tr>
<td><strong>Physical Exam Findings</strong></td>
<td>• Abdominal distension</td>
</tr>
<tr>
<td></td>
<td>• Increased or decreased bowel sounds</td>
</tr>
<tr>
<td></td>
<td>• Evidence of vitamin or mineral deficiency, e.g., glossitis, cheilosis, mouth lesions</td>
</tr>
</tbody>
</table>

**Food/Nutrition History**
Observations or reports of:
- Avoidance or limitation of total intake or intake of specific foods/food groups due to GI symptoms, e.g., bloating, cramping, pain, diarrhea, steatorrhea (greasy, floating, foul-smelling stools) especially following ingestion of food

**Client History**
- Diarrhea, steatorrhea, abdominal pain
- Endoscopic or colonoscopic examination results, biopsy results
- Conditions associated with a diagnosis or treatment, e.g., malabsorption, maldigestion, cystic fibrosis, celiac disease, Crohn’s disease, infection, radiation therapy, inborn errors of metabolism
- Surgical procedures, e.g., gastric bypass, bowel resection

**References:**
CLINICAL DOMAIN • Biochemical

ALTERED NUTRITION-RELATED LABORATORY VALUES (SPECIFY) (NC-2.2)

Definition
Changes due to body composition, medications, body system or genetics, or changes in ability to eliminate byproducts of digestive and metabolic processes

Etiology
(Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Kidney, liver, cardiac, endocrine, neurologic, and/or pulmonary dysfunction
- Other organ dysfunction that leads to biochemical changes

Signs/Symptoms
(Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td>Findings such as:</td>
</tr>
<tr>
<td></td>
<td>• Increased AST, ALT, T. bili, serum ammonia (liver disorders)</td>
</tr>
<tr>
<td></td>
<td>• Abnormal BUN, Cr, K, phosphorus, glomerular filtration rate (GFR) (kidney disorders)</td>
</tr>
<tr>
<td></td>
<td>• Altered pO₂ and pCO₂ (pulmonary disorders)</td>
</tr>
<tr>
<td></td>
<td>• Abnormal serum lipids</td>
</tr>
<tr>
<td></td>
<td>• Abnormal plasma glucose levels</td>
</tr>
<tr>
<td></td>
<td>• Other findings of acute or chronic disorders that are abnormal and of nutritional origin or consequence</td>
</tr>
<tr>
<td>Anthropometric Measurements</td>
<td>• Rapid weight changes</td>
</tr>
<tr>
<td></td>
<td>• Other anthropometric measures that are altered</td>
</tr>
<tr>
<td>Physical Exam Findings</td>
<td>• Jaundice, edema, ascites, itching (liver disorders)</td>
</tr>
<tr>
<td></td>
<td>• Edema, shortness of breath (cardiac disorders)</td>
</tr>
<tr>
<td></td>
<td>• Blue nail beds, clubbing (pulmonary disorders)</td>
</tr>
</tbody>
</table>

References:
FOOD-MEDICATION INTERACTION (NC-2.3)

**Definition**
Undesirable/harmful interaction(s) between food and over-the-counter (OTC) medications, prescribed medications, herbs, botanicals, and/or dietary supplements that diminishes, enhances, or alters effect of nutrients and/or medications

**Etiology (Cause/Contributing Risk Factors)**
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Combined ingestion or administration of medication and food that results in undesirable/harmful interaction(s)

**Signs/Symptoms (Defining Characteristics)**
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td>Alterations of biochemical tests based upon medication effect and patient/client condition</td>
</tr>
<tr>
<td>Anthropometric Measurements</td>
<td>Alterations of anthropometric measurements based upon medication effect and patient/client conditions, e.g., weight gain and corticosteroids</td>
</tr>
<tr>
<td>Physical Exam Findings</td>
<td></td>
</tr>
<tr>
<td>Food/Nutrition History</td>
<td>Observations or reports of:</td>
</tr>
<tr>
<td></td>
<td>- Intake that is problematic or inconsistent with OTC, prescribed drugs, herbs, botanicals, or dietary supplements such as:</td>
</tr>
<tr>
<td></td>
<td>- fish oils and prolonged bleeding</td>
</tr>
<tr>
<td></td>
<td>- coumadin, vitamin K-rich foods</td>
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<tr>
<td></td>
<td>- high-fat diet while on cholesterol-lowering medications</td>
</tr>
<tr>
<td></td>
<td>- iron supplements, constipation and low-fiber diet</td>
</tr>
<tr>
<td></td>
<td>- Intake that does not support replacement or mitigation of OTC, prescribed drugs, herbs, botanicals, or dietary supplements affects such as potassium-wasting diuretics</td>
</tr>
<tr>
<td></td>
<td>- Changes in appetite or taste</td>
</tr>
<tr>
<td>Client History</td>
<td>Multiple drugs (OTC, prescribed drugs, herbs, botanicals, or dietary supplements) that are known to have food medication interactions</td>
</tr>
<tr>
<td></td>
<td>Medications that require nutrient supplementation that can not be accomplished via food intake such as isoniazid and Vitamin B6</td>
</tr>
</tbody>
</table>

Reference:
CLINICAL DOMIAN: Weight

UNDERWEIGHT (NC-3.1)

Definition
Low body weight compared to established reference standards or recommendations

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Disordered eating pattern
- Excessive physical activity
- Harmful beliefs/attitudes about food, nutrition, and nutrition-related topics
- Inadequate energy intake
- Increased energy needs
- Limited access to food

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Biochemical Data</strong></td>
<td>• Weight for age less than 5th percentile for infants younger than 12 months</td>
</tr>
<tr>
<td></td>
<td>• Decreased skinfold thickness and mid-arm muscle circumference (MAMC)</td>
</tr>
<tr>
<td></td>
<td>• BMI &lt; 18.5 (most adults)</td>
</tr>
<tr>
<td></td>
<td>• BMI for older adults (over 65 years) &lt; 23</td>
</tr>
<tr>
<td></td>
<td>• BMI &lt; 5th percentile (children, 2-19 years)</td>
</tr>
<tr>
<td><strong>Physical Exam Findings</strong></td>
<td>• Decreased somatic protein stores, muscle wasting (gluteal and temporal)</td>
</tr>
<tr>
<td><strong>Food/Nutrition History</strong></td>
<td>• Inadequate intake of food compared to estimated or measured needs</td>
</tr>
</tbody>
</table>

References:
INVOLUNTARY WEIGHT LOSS (NC-3.2)

Definition
Decrease in body weight that is not planned or desired

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Physiologic causes, e.g., increased nutrient needs due to prolonged catabolic illness
- Lack of access to food, e.g., economic constraints, cultural or religious practices, restricting food given to elderly and/or children
- Prolonged hospitalization
- Psychological issues
- Lack of self-feeding ability

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td>• Weight loss of 5% within 1 month, 7.5% in 3 months and 10% in 6 months</td>
</tr>
<tr>
<td>Physical Examination Findings</td>
<td>• Fever</td>
</tr>
<tr>
<td></td>
<td>• Increased heart rate</td>
</tr>
<tr>
<td></td>
<td>• Increased respiratory rate</td>
</tr>
<tr>
<td></td>
<td>• Loss of subcutaneous fat and muscle stores</td>
</tr>
<tr>
<td>Food/Nutrition History</td>
<td>Reports or observations of:</td>
</tr>
<tr>
<td></td>
<td>• Normal or usual intake in face of illness</td>
</tr>
<tr>
<td></td>
<td>• Poor intake, change in eating habits, skipped meals</td>
</tr>
<tr>
<td></td>
<td>• Change in way clothes fit, e.g., becoming looser</td>
</tr>
</tbody>
</table>

References:
OVERWEIGHT/OBESITY (NC-3.3)

Definition
Increased adiposity compared to established reference standards or recommendations

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiologic, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Decreased energy needs
- Disordered eating pattern
- Excess energy intake
- Food- and nutrition-related knowledge deficit
- Not ready for diet/lifestyle change
- Physical inactivity
- Increased psychological/life stress

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td></td>
</tr>
<tr>
<td>Anthropometric Measurements</td>
<td>• BMI above normative standard for age and gender</td>
</tr>
<tr>
<td></td>
<td>• Waist circumference above normative standard for age and gender</td>
</tr>
<tr>
<td></td>
<td>• Increased skinfold thickness</td>
</tr>
<tr>
<td></td>
<td>• Weight for height above normative standard for age and gender</td>
</tr>
<tr>
<td>Physical Exam Findings</td>
<td>• Increased body adiposity</td>
</tr>
<tr>
<td>Food/Nutrition History</td>
<td>Reports or observations of:</td>
</tr>
<tr>
<td></td>
<td>• Overconsumption of high-fat and/or calorically-dense food or beverage</td>
</tr>
</tbody>
</table>

References:
CLINICAL DOMAIN • Weight

INVoluntary Weight Gain (NC-3.4)

Definition
Weight gain above that which is desired or planned

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Illness causing unexpected weight gain because of head trauma, immobility, paralysis or related condition
- Chronic use of medications known to cause weight gain, such as use of certain antidepressants, antipsychotics, corticosteroids, certain HIV medications
- Condition leading to excessive fluid weight gains

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity:

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td>• Decrease in serum albumin, hyponatremia, elevated fasting serum lipid levels, elevated fasting glucose levels, fluctuating hormone levels</td>
</tr>
<tr>
<td>Anthropometric Measurements</td>
<td>• Weight history – noting any increase in weight greater than planned or desired, such as 10% in 6 months</td>
</tr>
<tr>
<td>Physical Examination Findings</td>
<td>• Fat accumulation—excessive subcutaneous fat stores</td>
</tr>
<tr>
<td></td>
<td>• Lipodystrophy associated with HIV medications—increase in dorsocervial fat, breast enlargement, increased abdominal girth</td>
</tr>
<tr>
<td></td>
<td>• Edema</td>
</tr>
<tr>
<td></td>
<td>• Shortness of breath</td>
</tr>
<tr>
<td></td>
<td>• Sensitivity to cold, constipation, and hair loss</td>
</tr>
</tbody>
</table>

Food/Nutrition History
Reports or observations of:
- Intake consistent with estimated or measured energy needs
- Changes in recent food intake level
- Use of alcohol, narcotics
- Extreme hunger with or without palpitations, tremor, and sweating
- Physical inactivity or change in physical activity level

Client History
- Conditions associated with a diagnosis or treatment of asthma, psychiatric illnesses, rheumatic conditions, HIV/AIDS, Cushing’s syndrome, obesity, Prader-Willi syndrome
- Fluid administration above requirements
- Change in sleep habits, insomnia
- Muscle weakness
- Fatigue
- Medications associated with increased appetite

References:

Edition 2006
DEFINITION
Incomplete or inaccurate knowledge about food, nutrition, or nutrition-related information and guidelines, e.g., nutrient requirements, consequences of food behaviors, life stage requirements, nutrition recommendations, diseases and conditions, physiological function, or products.

ETIOLOGY (CAUSE/CONTRIBUTING RISK FACTORS)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Harmful beliefs/attitudes about food, nutrition, and nutrition-related topics
- Lack of prior exposure to information
- Language or cultural barrier impacting ability to learn information
- Learning disability, neurological or sensory impairment
- Prior exposure to incompatible information
- Prior exposure to incorrect information
- Unwilling to learn or uninterested in learning information

SIGNS/SYMPOTOMS (DEFINING CHARACTERISTICS)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td></td>
</tr>
<tr>
<td>Anthropometric Measurements</td>
<td></td>
</tr>
<tr>
<td>Physical Exam Findings</td>
<td></td>
</tr>
</tbody>
</table>

FOOD/NUTRITION HISTORY

About views or reports of:

- Verbalizes inaccurate or incomplete information
- Provides inaccurate or incomplete written response to questionnaire/written tool, or is unable to read written tool
- Demonstrates inability to apply food- and nutrition-related information, e.g., select food based on nutrition therapy or prepare infant feeding as instructed
- Relates concerns about previous attempts to learn information
- Verbalizes unwillingness to learn or disinterest in learning information

CLIENT HISTORY

- Client or caregiver has no prior knowledge of need for food and nutrition-related recommendations
- Conditions associated with a diagnosis or treatment of, e.g., mental illness
- New medical diagnosis or change in existing diagnosis or condition

REFERENCES:
HARMFUL BELIEFS/ATTITUDES OR PRACTICES ABOUT FOOD, NUTRITION, AND NUTRITION-RELATED TOPICS (NB-1.2)

Use with caution: Be sensitive to patient concerns.

**Definition**
Beliefs/attitudes or practices about food, nutrition, and nutrition-related topics that are incompatible with sound nutrition principles, nutrition care or disease/condition (excluding disordered eating patterns and eating disorders)

**Etiology** (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Disbelief in science-based food and nutrition information
- Exposure to incorrect food and nutrition information
- Eating behavior serves a purpose other than nourishment (e.g., Pica)
- Desire for a cure for a chronic disease through the use of alternative therapy

**Signs/Symptoms** (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

**Nutrition Assessment Category** | **Potential Indicators of this Nutrition Diagnosis (one or more must be present)**
--- | ---
Biochemical Data |  
Anthropometric Measurements |  
Physical Exam Findings |  
Food/Nutrition History | Reports or observations of:  
- Food fetish, Pica  
- Food faddism  
- Intake that reflects an imbalance of nutrients/food groups  
- Intake that reflects an imbalance of nutrients/food groups  
- Intake that reflects an imbalance of nutrients/food groups  
- Intake that reflects an imbalance of nutrients/food groups  
- Avoidance of foods/food groups (e.g., sugar, wheat, cooked foods)

**References:**
Not Ready for Diet/Lifestyle Change (NB-1.3)

Definition
Lack of perceived value of nutrition-related behavior change compared to costs (consequences or effort required to make changes); conflict with personal value system; antecedent to behavior change

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Harmful beliefs/attitudes about food, nutrition, and nutrition-related topics
- Cognitive deficits or inability to focus on dietary changes
- Lack of social support for implementing changes
- Denial of need to change
- Perception that time, interpersonal, or financial constraints prevent changes
- Unwilling or uninterested in learning information
- Lack of self-efficacy for making change or demoralization from previous failures at change

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
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<tbody>
<tr>
<td>Biochemical Data</td>
<td></td>
</tr>
<tr>
<td>Anthropometric Measurements</td>
<td></td>
</tr>
<tr>
<td>Physical Exam Findings</td>
<td>• Negative body language, e.g., frowning, lack of eye contact, defensive posture, lack of focus, fidgeting (Note: body language varies by culture.)</td>
</tr>
</tbody>
</table>

References:
**BEHAVIORAL-ENVIRONMENTAL DOMAIN • Knowledge and Beliefs**

**SELF-MONITORING DEFICIT (NB-1.4)**

**Definition**
Lack of data recording to track personal progress

**Etiology (Cause/Contributing Risk Factors)**
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Food- and nutrition-related knowledge deficit
- Lack of social support for implementing changes
- Lack of value for behavior change or competing values
- Perception that lack of resources, e.g., time, financial, or social support prevent self-monitoring
- Cultural barrier impacting ability to track personal progress
- Learning disability, neurological, or sensory impairment
- Prior exposure to incompatible information
- Not ready for diet/lifestyle change
- Unwilling or uninterested in tracking progress
- Lack of focus and attention to detail, difficulty with time management and/or organization

**Signs/Symptoms (Defining Characteristics)**
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity:

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td>• Recorded data inconsistent with biochemical data, e.g., dietary intake is not consistent with biochemical data</td>
</tr>
<tr>
<td>Anthropometric Measurements</td>
<td>• Recorded data inconsistent with weight status or growth pattern data, e.g., dietary intake is not consistent with weight status or growth pattern</td>
</tr>
</tbody>
</table>

**References:**
**Definition**
Beliefs, attitudes, thoughts and behaviors related to food, eating, and weight management, including classic eating disorders as well as less severe, similar conditions that negatively impact health

**Etiology (Cause/Contributing Risk Factors)**
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Obsessive desire to be thin related to familial, societal, biological/genetic, and/or genetic factors
- Weight regulation/preoccupation significantly influences self esteem

**Signs/Symptoms (Defining Characteristics)**
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

### Nutrition Assessment Category
<table>
<thead>
<tr>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Biochemical Data</strong></td>
</tr>
<tr>
<td>• Elevated cholesterol, abnormal lipid profile, hypoglycemia, hypokalemia [anorexia nervosa (AN)]</td>
</tr>
<tr>
<td>• Hypokalemia and hypochloremic alkalosis [bulimia nervosa (BN)]</td>
</tr>
<tr>
<td>• Hypotension, bradycardia, low body temperature, hyponatremia, anemia, hypothyroid, leucopenia, elevated BUN (AN)</td>
</tr>
<tr>
<td>• Urine positive for ketones (AN)</td>
</tr>
<tr>
<td><strong>Anthropometric Measurements</strong></td>
</tr>
<tr>
<td>• BMI &lt; 17.5, arrested growth and development, failure to gain weight during period of expected growth, weight less than 85% of expected weight (AN)</td>
</tr>
<tr>
<td>• BMI &gt; 29 (eating disorder not otherwise specified (EDNOS)]</td>
</tr>
<tr>
<td>• Significant weight fluctuation (BN)</td>
</tr>
<tr>
<td><strong>Physical Exam Findings</strong></td>
</tr>
<tr>
<td>• Severely depleted adipose and somatic protein stores (AN)</td>
</tr>
<tr>
<td>• Lamugo hair formation on face and trunk, brittle listless hair, cyanosis of hands and feet, and dry skin (AN)</td>
</tr>
<tr>
<td>• Normal or excess adipose and normal somatic protein stores (BN, EDNOS)</td>
</tr>
<tr>
<td>• Damaged tooth enamel (BN)</td>
</tr>
<tr>
<td>• Enlarged parotid glands (BN)</td>
</tr>
<tr>
<td>• Peripheral edema (BN)</td>
</tr>
<tr>
<td>• Skeletal muscle loss (AN)</td>
</tr>
<tr>
<td>• Cardiac arrhythmias (AN, BN)</td>
</tr>
<tr>
<td>• Irritability, depression (AN, BN)</td>
</tr>
<tr>
<td>• Inability to concentrate (AN)</td>
</tr>
<tr>
<td>• Positive Russell’s Sign (BN) callous on back of hand from self induced vomiting</td>
</tr>
<tr>
<td><strong>Food/Nutrition History</strong></td>
</tr>
<tr>
<td>• Reports or observations of:</td>
</tr>
<tr>
<td>• Avoidance of food or calorie-containing beverages (AN, BN)</td>
</tr>
<tr>
<td>• Fear of foods or dysfunctional thoughts regarding food or food experiences (AN, BN)</td>
</tr>
<tr>
<td>• Denial of hunger (AN)</td>
</tr>
<tr>
<td>• Food preoccupation (AN, BN)</td>
</tr>
<tr>
<td>• Knowledgeable about current diet fad (AN, BN, EDNOS)</td>
</tr>
<tr>
<td>• Fasting (AN, BN)</td>
</tr>
<tr>
<td>• Intake of larger quantity of food in a defined time period, a sense of lack of control over eating during the episode (BN, EDNOS)</td>
</tr>
<tr>
<td>• Excessive physical activity (AN, BN, EDNOS)</td>
</tr>
<tr>
<td>• Eating much more rapidly than normal, eating until feeling uncomfortably full; consuming large amounts of food when not feeling physically hungry; eating alone because of being embarrassed by how much one is eating; feeling disgusted with oneself, depressed, or very guilty after overeating (EDNOS)</td>
</tr>
<tr>
<td>• Eats in private (AN, BN)</td>
</tr>
<tr>
<td>• Irrational thoughts about food’s affect on the body (AN, BN, EDNOS)</td>
</tr>
<tr>
<td>• Pattern of chronic dieting</td>
</tr>
<tr>
<td>• Weight preoccupation</td>
</tr>
<tr>
<td>• Excessive reliance on nutrition Terming and preoccupation with nutrient content of foods</td>
</tr>
<tr>
<td>• Inflexibility with food selection</td>
</tr>
</tbody>
</table>
DISORDERED EATING PATTERN (NB-1.5)

Client History
- Bradycardia (heart rate < 60 beats/min), hypotension (systolic < 90 mm Hg), and orthostatic hypotension (AN)
- Self-induced vomiting, diarrhea, bloating, constipation and flatulence (BN)
- Report of always feeling cold (AN)
- Misuse of laxatives, enemas, diuretics, stimulants and/or metabolic enhancers (AN, BN)
- Muscle weakness, fatigue, cardiac arrhythmias, dehydration, and electrolyte imbalance (AN, BN)
- Diagnosis, e.g., anorexia nervosa, bulimia nervosa, binge eating, eating disorder not otherwise specified, amenorrhea
- History of mood and anxiety disorders (e.g., depression, obsessive compulsive disorder), personality disorders, substance abuse disorders
- Family history of ED, depression, OCD, anxiety disorders (AN, BN)
- Avoidance of social events where food is served

References:

LIMITED ADHERENCE TO NUTRITION-RELATED RECOMMENDATIONS (NB-1.6)

Definition
Lack of nutrition-related changes as per intervention agreed upon by client or population

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:
- Lack of social support for implementing changes
- Lack of value for behavior change or competing values
- Perception that time or financial constraints prevent changes
- Previous lack of success in making health-related changes
- Poor understanding of how and why to make changes
- Unwilling to apply or uninterested in applying information

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

Nutrition Assessment Category | Potential Indicators of this Nutrition Diagnosis (one or more must be present)
--- | ---
Biochemical Data | Expected laboratory outcomes are not achieved
Anthropometric Measurements | Expected anthropometric outcomes are not achieved
Physical Exam Findings | Negative body language, e.g., frowning, lack of eye contact, fidgeting (Note: body language varies by culture)
LIMITED ADHERENCE TO NUTRITION-RELATED RECOMMENDATIONS (NB-1.6)

**Food/Nutrition History**

- Reports or observations of:
  - Expected food/nutrition-related outcomes are not achieved
  - Inability to recall agreed upon changes
  - Failure to complete any agreed upon homework
  - Lack of compliance or inconsistent compliance with plan
  - Failure to keep appointments or schedule follow-up appointments
  - Lack of appreciation of the importance of making recommended nutrition-related changes
  - Uncertainty as to how to consistently apply food/nutrition information

**Client History**

**References:**


BEHAVIORAL-ENVIRONMENTAL DOMAIN • Knowledge and Beliefs

UNDESIRABLE FOOD CHOICES (NB-1.7)

**Definition**

Food and/or beverage choices that are inconsistent with US Recommended Dietary Intake, US Dietary Guidelines, or with the My Pyramid or with targets defined in the nutrition prescription or nutrition care process

**Etiology** *(Cause/Contributing Risk Factors)*

Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Lack of prior exposure to or misunderstanding of information
- Language, religious, or cultural barriers affecting ability to apply information
- Learning disabilities, neurological or sensory impairment
- High level of fatigue or other side effect of therapy
- Inadequate access to recommended foods
- Perception that financial constraints prevent selection of food choices consistent with recommendations
- Food allergies and aversions impeding food choices consistent with guidelines
- Lacks motivation and/or readiness to apply or support systems change
- Unwilling or uninterested in learning information
- Psychological limitations

**Signs/Symptoms** *(Defining Characteristics)*

A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td>Elevated lipid panel</td>
</tr>
<tr>
<td>Anthropometric Measurements</td>
<td></td>
</tr>
<tr>
<td>Physical Exam Findings</td>
<td>Findings consistent with vitamin/mineral deficiency or excess</td>
</tr>
</tbody>
</table>
## UNDESIRABLE FOOD CHOICES (NB-1.7)

### Food/Nutrition History
Reports or observations of:
- Intake inconsistent with US Dietary Guidelines or My Pyramid (e.g., omission of entire nutrient groups, disproportionate intake such as juice for young children)
- Inaccurate or incomplete understanding of the guidelines
- Inability to apply guideline information
- Inability (e.g. access) or unwillingness to select, or disinterest in selecting food consistent with the guidelines

### Client History
- Conditions associated with a diagnosis or treatment, e.g., mental illness

### References:

## PHYSICAL INACTIVITY (NB-2.1)

### Definition
Low level of activity/sedentary behavior to the extent that it reduces energy expenditure and impacts health

### Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:
- Financial constraints that may prevent sufficient level of activity
- Harshful beliefs/attitudes about physical activity
- Injury or lifestyle change that reduces physical activity or activities of daily living
- Lack of prior education about need for physical activity or how to incorporate exercise, e.g., physical disability, arthritis
- Lack of role models, e.g., for children
- Lack of social support and/or environmental space or equipment
- Lack of safe environment for physical activity
- Lack of time or competing values for behavior change
- Time constraints

### Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td></td>
</tr>
<tr>
<td>Anthropometric Measurements</td>
<td></td>
</tr>
<tr>
<td>Physical Exam Findings</td>
<td></td>
</tr>
</tbody>
</table>
**Behavioral-Environmental Domain • Physical Activity and Function**

**Physical Inactivity (NB-2.1)**

### Food/Nutrition History
Reports or observations of:
- Infrequent, low-duration and/or low-intensity physical activity
- Large amounts of sedentary activities, e.g., TV watching, reading, computer use in both leisure and work/school
- Barriers to physical activity, e.g., time constraints, availability of a safe environment for exercise

### Client History
- Low cardio-respiratory fitness and/or low muscle strength
- Medical diagnoses that may be associated with or result in decreased activity, e.g., arthritis, chronic fatigue syndrome, morbid obesity, knee surgery
- Medications that cause somnolence and decreased cognition
- Psychological diagnosis, e.g., depression, anxiety disorders

### References:

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**Behavioral-Environmental Domain • Physical Activity and Function**

**Excessive Exercise (NB-2.2)**

### Definition
An amount of exercise that exceeds that which is necessary to improve health and/or athletic performance

### Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:
- Disordered eating
- Irrational beliefs/attitudes about food, nutrition, and fitness
- “Addictive” behaviors/personality

### Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td>• Elevated liver enzymes, e.g., ALDE, SGOT</td>
</tr>
<tr>
<td></td>
<td>• Altered micronutrient status, e.g., decreased serum ferritin, zinc, and IGF-binding protein</td>
</tr>
<tr>
<td></td>
<td>• Increased hemocrit</td>
</tr>
<tr>
<td></td>
<td>• Suppressed immune function</td>
</tr>
<tr>
<td></td>
<td>• Possibly elevated cortisol levels</td>
</tr>
<tr>
<td>Anthropometric Measurements</td>
<td>• Weight loss, arrested growth and development, failure to gain weight during period of expected growth (related usually to disordered eating)</td>
</tr>
<tr>
<td>Physical Exam Findings</td>
<td>• Depleted adipose and somatic protein stores (related usually to disordered eating)</td>
</tr>
<tr>
<td></td>
<td>• Frequent and/or prolonged injuries and/or illnesses</td>
</tr>
<tr>
<td></td>
<td>• Chronic fatigue</td>
</tr>
<tr>
<td></td>
<td>• Chronic muscle soreness</td>
</tr>
</tbody>
</table>

---
Physical Activity and Function

EXCESSIVE EXERCISE (NB-2.2)

Food/Nutrition History

Reports or observations of:

• Continued/repeated high levels of exercise exceeding levels necessary to improve health and/or athletic performance
• Exercise daily without rest/rehabilitation days
• Exercise while injured/sick
• Forsaking family, job, social responsibilities to exercise

Client History

• Conditions associated with a diagnosis or treatment of, e.g., anorexia nervosa, bulimia nervosa, binge eating, eating disorder not otherwise specified, amenorrhea
• Evidence of addictive, obsessive, or compulsive tendencies

References:


INABILITY OR LACK OF DESIRE TO MANAGE SELF-CARE (NB-2.3)

Definition

Lack of capacity or unwillingness to implement methods to support healthful food- and nutrition-related behavior

Etiology (Cause/Contributing Risk Factors)

Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

• Food- and nutrition-related knowledge deficit
• Lack of caretaker or social support for implementing changes
• Lack of developmental readiness to perform self management tasks, e.g. pediatricians
• Lack of value or competing values for behavior change
• Perception that lack of resources (time, financial, support persons) prevent self care
• Cultural beliefs and practices
• Learning disability, neurological or sensory impairment
• Prior exposure to incompatible information
• Not ready for diet/lifestyle change
• Unwilling or uninterested in learning/applying information
• No self-management tools or decision guides

Signs/Symptoms (Defining Characteristics)

A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity:

Nutrition Assessment Category | Potential Indicators of this Nutrition Diagnosis (one or more must be present)
--- | ---
Biochemical Data
Anthropometric Measurements
Physical Exam Findings
INABILITY OR LACK OF DESIRE TO MANAGE SELF-CARE (NB-2.3)

**Food/Nutrition History**
Reports or observations of:
- Inability to interpret data or self-management tools
- Embarrassment or anger regarding need for self-monitoring
- Uncertainty regarding changes that could/should be made in response to data in self-monitoring records

**Client History**
- Diagnoses that are associated with self-management, e.g., diabetes mellitus, obesity, cardiovascular disease, renal or liver disease
- Conditions associated with a diagnosis or treatment, e.g., cognitive or emotional impairment
- New medical diagnosis or change in existing diagnosis or condition

References:

IMPAIRED ABILITY TO PREPARE FOODS/MEALS (NB-2.4)

**Definition**
Cognitive or physical impairment that prevents preparation of foods/meals

**Etiology (Cause/Contributing Risk Factors)**
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:
- Learning disability, neurological or sensory impairment
- Loss of mental or cognitive ability, e.g., dementia
- Physical disability
- High level of fatigue or other side effect of therapy

**Signs/Symptoms (Defining Characteristics)**
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity:
BEHAVIORAL-ENVIRONMENTAL DOMAIN • Physical Activity and Function

IMPAIRED ABILITY TO PREPARE FOODS/MEALS (NB-2.4)

References:

BEHAVIORAL-ENVIRONMENTAL DOMAIN • Physical Activity and Function

POOR NUTRITION QUALITY OF LIFE (NQOL) (NB-2.5)

Definition
Diminished NQOL scores related to food impact, self image, psychological factors, social/interpersonal factors, physical factors, or self-efficacy

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems.

- Food- and nutrition knowledge-related deficit
- Not ready for diet/lifestyle change
- Negative impact of current or previous medical nutrition therapy (MNT)
- Food or activity behavior-related difficulty
- Poor self-efficacy
- Altered body image
- Food insecurity
- Lack of social support for implementing changes

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td></td>
</tr>
<tr>
<td>Anthropometric Measurements</td>
<td></td>
</tr>
<tr>
<td>Physical Exam Findings</td>
<td></td>
</tr>
</tbody>
</table>
POOR NUTRITION QUALITY OF LIFE (NQOL) (NB-2.5)

- Food/Nutrition History
  - Reports or observations of:
    - Unfavorable NQOL rating
    - Frustration or dissatisfaction with MNT recommendations
    - Inaccurate or incomplete information related to MNT recommendations
    - Inability to change food- or activity-related behavior
    - Concerns about previous attempts to learn information
    - Unwillingness or disinterest in learning information

- Client History
  - New medical diagnosis or change in existing diagnosis or condition
  - Recent other lifestyle or life changes, e.g., quit smoking, initiated exercise, work change, home relocation

References:

SELF-FEEDING DIFFICULTY (NB-2.6)

Definition
Impaired actions to place food or beverages in mouth

Etiology (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Inability to grasp cups and utensils for self-feeding
- Inability to support and/or control head and neck
- Lack of coordination of hand to mouth
- Limited physical strength or range of motion
- Inability to bend elbow or wrist
- Inability to sit with hips square and back straight
- Limited access to foods conducive for self-feeding
- Limited vision
- Reluctance or avoidance of self feeding

Signs/Symptoms (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity:

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td></td>
</tr>
<tr>
<td>Anthropometric Measurements</td>
<td></td>
</tr>
<tr>
<td>Physical Exam Findings</td>
<td>• Dry mucous membranes, hoarse or wet voice, tongue extrusion</td>
</tr>
</tbody>
</table>
**SELF-FEEDING DIFFICULTY (NB-2.6)**

**Food/Nutrition History**
Reports or observations of:
- Being provided with foods that may not be conducive to self-feeding, e.g., peas, broth-type soups
- Poor lip closure, drooling
- Dropping of cups, utensils
- Emotional distress, anxiety, or frustration surrounding mealtimes
- Failure to recognize foods
- Forgets to eat
- Inappropriate use of food
- Refusal to eat or chew
- Dropping of food from utensil (splashing and spilling of food) on repeated attempts to feed
- Utensil biting

**Client History**
- Conditions associated with a diagnosis or treatment of, e.g., neurological disorders, Parkinson’s disease, Alzheimer’s disease, Tardive dyskinesia, multiple sclerosis, stroke, paralysis, developmental delay
- Physical limitations, e.g., fractured arms, traction, contractures
- Surgery requiring recumbent position
- Dementia/organic brain syndrome
- Dysphagia
- Weight loss
- Shortness of breath
- Tremors

**References:**

**INTAKE OF UNSAFE FOOD (NB-3.1)**

**Definition**
Intake of food and/or fluids intentionally or unintentionally contaminated with toxins, poisonous products, infectious agents, microbial agents, additives, allergens, and/or agents of bioterrorism

**Etiology (Cause/Contributing Risk Factors)**
Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:
- Lack of knowledge about potentially unsafe food
- Lack of knowledge about proper food/feeding, storage and preparation, e.g., infant and enteral formula, or breast milk
- Exposure to contaminated water or food, e.g., community outbreak of illness documented by surveillance and/or response agency
- Mental illness, confusion or altered awareness
- Inadequate food storage equipment/facilities, e.g., refrigerator
- Inadequate safe food supply, e.g., inadequate access to markets with safe, uncontaminated food

**Signs/Symptoms (Defining Characteristics)**
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td>• Positive stool culture for infectious causes, such as listeria, salmonella, hepatitis A, E. coli, cyclospora</td>
</tr>
<tr>
<td></td>
<td>• Toxicology reports for drugs, medicinals, poisons in blood or food samples</td>
</tr>
<tr>
<td>Anthropometric Measurements</td>
<td></td>
</tr>
<tr>
<td>Physical Examination Findings</td>
<td>• Evidence of dehydration, e.g., dry mucous membranes, damaged tissues</td>
</tr>
</tbody>
</table>
Food Safety and Access

INTAKE OF UNSAFE FOOD (NB-3.1)

<table>
<thead>
<tr>
<th>Food/Nutrition History</th>
<th>Observations/reports of intake of potential unsafe foods (e.g., pregnant and lactating women):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Mercury content of fish and in non-food items</td>
</tr>
<tr>
<td></td>
<td>• Raw eggs, unpasteurized milk products, soft cheeses, undercooked meats (infants, children, immunocompromised persons, pregnant and lactating women, and elderly)</td>
</tr>
<tr>
<td></td>
<td>• Wild plants, berries, and mushrooms</td>
</tr>
<tr>
<td></td>
<td>Observations/reports of unsafe food/feeding or storage and preparation practices (enteral and infant formula, or breast milk)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Client History</th>
<th>Observations/reports of conditions associated with a diagnosis or treatment of, e.g., food borne illness, such as, bacterial, viral, and parasitic infection, mental illness, dementia</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Poisoning by drugs, medicinals, or biological substances</td>
</tr>
<tr>
<td></td>
<td>• Poisoning from poisonous food stuffs or poisonous plants</td>
</tr>
<tr>
<td></td>
<td>• Diarrhea, cramping, blotting, fever, nausea, vomiting, vision problems, chills, dizziness, headache</td>
</tr>
<tr>
<td></td>
<td>• Cardiac, neurologic, respiratory changes</td>
</tr>
</tbody>
</table>

References:

LIMITED ACCESS TO FOOD (NB-3.2)

Definition

Diminished ability to acquire food from sources (e.g., shopping, gardening, meal delivery), due to financial constraints, physical impairment, caregiver support, or unsafe living conditions (e.g. crime hinders travel to grocery store). Limitation to food because of concerns about weight or aging.

Etiology (Cause/Contributing Risk Factors)

Factors gathered during the nutrition assessment process that contribute to the existence or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Caregiver intentionally or unintentionally not providing access to food, e.g., unmet needs for food or eating assistance, abuse/neglect
- Community and geographical constraints for shopping and transportation
- Lack of financial resources or lack of access to financial resources to purchase sufficient food
- Limited or absent community supplemental food programs, e.g., food pantry, shelter
- Failure to participate in food programs such as WIC, National School Lunch Program, food stamps
- Physical or psychological limitations that diminish ability to shop, e.g., walking, sight, mental/emotional health

Signs/Symptoms (Defining Characteristics)

A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td>• Indicators of macronutrient or vitamin/mineral status</td>
</tr>
<tr>
<td>Anthropometric Measurements</td>
<td>• Growth failure, based on National Center for Health Statistics (NCHS) growth standards</td>
</tr>
<tr>
<td></td>
<td>• Underweight (BMI &lt; 18.5)</td>
</tr>
<tr>
<td>Physical Exam Findings</td>
<td>• Findings consistent with vitamin or mineral deficiency</td>
</tr>
</tbody>
</table>
Limitations access to food (NB-3.2)

Edition: 2006

3.2

Food Safety and Access

LIMITED ACCESS TO FOOD (NB-3.2)

Reports or observations of:

• Food faddism
• Belief that aging can be slowed by dietary limitations and extreme exercise
• Hunger
• Inadequate intake of food and/or specific nutrients
• Limited supply of food in home
• Limited variety of foods

Malnutrition, vitamin or mineral deficiency

Hunger or physiologic deficiency

Diagnosis or treatment e.g., renal illness, dementia

Client History

• Malnutrition, vitamin or mineral deficiency
• Illness or physical disability
• Conditions associated with a diagnosis or treatment, e.g., mental illness, dementia
• Lack of suitable support systems

References:


SUBJECT: NUTRITION CONTROLLED VOCABULARY/TERMINOLOGY MAINTENANCE/REVIEW

AMERICAN DIETETIC ASSOCIATION
120 South Riverside Plaza Suite 2000
CHICAGO, ILLINOIS  60606-6995

Effective Date: April 2005
Revision Date: June 2006
Review Date:

PURPOSE:

This policy establishes the process followed by the Nutrition Care Process/Standardized Language (NCP/SL) Committee to maintain a current Nutrition Care Process and list of nutrition controlled vocabulary terminology that document the Nutrition Care Process.

STRUCTURE:

The NCP/SL Committee is a joint House of Delegates and Board of Directors Committee and provides semi-annual reports to both bodies.

PROCEDURES:

The NCP/SL Committee accepts proposals for modification or additions to the Nutrition Diagnostic Terminology as follows:

1. Any individual ADA member or Dietetic Practice Group can submit proposals for modification or additions by completing the attached two documents:
   a. Proposed Nutrition Diagnostic Terminology Modification/Addition letter
   b. Reference worksheet for proposed modification/addition

2. The NCP/SL will review the submissions at their routine face-to-face meetings or teleconferences to establish the following:
   a. Is the term already represented by an existing term?
      i. If so the new term can be added as a synonym for the existing term or replace the existing term.
      ii. If not, the term can be considered for addition to the list of terms as long as it meets the need for describing elements of dietetic practice in the context of the nutrition care process.
   b. Does the term overlap with an existing term, but add new elements?
      i. If yes, then the existing term can be modified to include the new elements or the proposed term can be clarified to be distinctly different from the existing term through a dialogue with the proposal submitter.
      ii. If no, then consider adding new term.
   c. Is the term distinct and separate from all existing terms?
      i. If yes, then ensure that the term is in the context of dietetic practice within the Nutrition Care Process and consider adding to list of terms.
      ii. If no, then work with proposal submitter to discuss how to integrate into existing terms or create a separate term.

3. The NCP/SL Committee will prepare a summary of comments and one representative of the NCP/SL will confer with the proposal submitter after the initial discussion to answer
SUBJECT: NUTRITION CONTROLLED VOCABULARY/TERMINOLOGY MAINTENANCE/REVIEW

questions and discuss the initial input from the NCP/SL Committee. If the proposal submitter is not satisfied with the direction proposed by the NCP/SL Committee, then they will be invited to submit additional documentation and have time on the next teleconference/meeting agenda to personally present their concerns.

4. Changes or modifications accepted by the NCP/SL Committee will be integrated into the list that is re-published on an annual basis.

STAFFING:
Governance and Scientific Affairs and Research provide staff support to NCP/SL Committee and for Research Committee functions.

Attachments
1. Letter template for proposing a New Term for Nutrition Diagnostic Terminology
2. Letter template for proposing Modifications to Nutrition Diagnostic Terminology
3. Template for Reference Sheet to support additions/modifications to Nutrition Diagnostic Terminology
4. Completed Reference Sheet Example (Case with PES statement not included)

SUBJECT: NUTRITION CONTROLLED VOCABULARY/TERMINOLOGY MAINTENANCE/REVIEW

Attachment 1: Letter Template for Proposing a New Term for Nutrition Diagnostic Terminology

Date: __________

To: NCP/SL Committee
Scientific Affairs and Research
American Dietetic Association
120 South Riverside Plaza, Suite 2000
Chicago, IL 60606-6995
emyers@eatright.org; cehanner@eatright.org

Subject: Proposed Addition to Nutrition Diagnostic Terminology

(1/We) would like to propose a new term, _____________________ (Proposed term to add to the Nutrition Diagnostic Terminology list). The reason I/we believe that this term should be added is as follows (insert concise rationale for change and may include brief example of when the situation arose that the current term was inadequately defined):

1. (Insert first statement of rationale.)
2. (Insert second statement of rationale, if applicable.)
3. (Insert example of situation where this modification was needed.)

Other terms that are similar and explanations of why they do not exactly match our new proposed term are as follows:

1. (Insert number and name.) – (Insert 2-3 sentences to illustrate why the existing term does not meet your need.)
2. (Insert number and name.) – (Insert 2-3 sentences to illustrate why the existing term does not meet your need.)
3. (Add as many as applicable.)

Attached is the reference sheet that includes the label, description, proposed domain and category, examples of etiologies and signs and symptoms and a case that illustrates when this term would be used and the corresponding PES statement that would be used in medical record documentation.

The point of contact for this proposal is ___________________________ (insert name), who can be reached at _____ (best contact telephone number) and _______ (e-mail address).

Thank you for considering our request.

Signature block
(Organizational unit if applicable)

Attachments: (1) Completed Reference Sheet Template (Case and PES statement example not included)
To: NCP/SL Committee  
Scientific Affairs and Research  
American Dietetic Association  
120 South Riverside Plaza, Suite 2000  
Chicago, IL 60606-6995  
emyers@eatright.org; cchanner@eatright.org

Subject: Proposed Modification to Existing Nutrition Diagnostic Terminology

(I/We) would like to propose a modification or the term, _____________________(insert Number and Name from current Nutrition Diagnostic Terminology list). The reason I/we believe that this term should be modified is as follows (insert concise rationale for change and may include brief example of when the situation arose that the current term was inadequately defined):

1. (Insert first statement of rationale.)
2. (Insert second statement of rationale, if applicable.)
3. (Insert example of situation where this modification was needed.)

Attached is the revised reference sheet which shows the changes highlighted or bolded for your consideration.

The point of contact for this proposal is ______________________ (insert name), who can be reached at ______(best contact telephone number) and ______(e-mail address).

Thank you for considering our request.

Signature block  
(Organizational unit if applicable)

Attachments: (1) Completed Reference Sheet Template
Nutrition Diagnostic Label (NC-1.1)

Swallowing difficulty.

**Definition of Nutrition Diagnostic Label**
Impaired movement of food and liquid from the mouth to the stomach.

**Etiology** (Cause/Contributing Risk Factors)
Factors gathered during the nutrition assessment process that contribute to the existence of or the maintenance of pathophysiological, psychosocial, situational, developmental, cultural, and/or environmental problems:

- Mechanical causes such as inflammation; surgery; stricture; or oral, pharyngeal and esophageal tumors
- Motor causes, e.g., neurological or muscular disorders such as cerebral palsy, stroke, multiple sclerosis, scleroderma, or prematurity

**Signs/Symptoms** (Defining Characteristics)
A typical cluster of subjective and objective signs and symptoms gathered during the nutrition assessment process that provide evidence that a problem exists; quantify the problem and describe its severity.

<table>
<thead>
<tr>
<th>Nutrition Assessment Category</th>
<th>Potential Indicators of this Nutrition Diagnosis (one or more must be present)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Data</td>
<td>Evidence of dehydration, e.g., dry mucous membranes, poor skin turgor</td>
</tr>
<tr>
<td>Anthropometric Measurements</td>
<td></td>
</tr>
<tr>
<td>Physical Exam Findings</td>
<td>Evidence of dehydration, e.g., dry mucous membranes, poor skin turgor</td>
</tr>
<tr>
<td>Food/Nutrition History</td>
<td>Coughing, choking, prolonged chewing, puckering of food, regurgitation, facial expression changes during eating, prolonged feeding time, drooling, noisy wet upper airway sounds, feeling of “food getting stuck,” pain while swallowing</td>
</tr>
<tr>
<td></td>
<td>Decreased food intake</td>
</tr>
<tr>
<td></td>
<td>Avoidance of foods</td>
</tr>
<tr>
<td></td>
<td>Mealtime resistance</td>
</tr>
<tr>
<td>Client History</td>
<td>Conditions associated with a diagnosis or treatment of dysphagia, achalasia</td>
</tr>
<tr>
<td></td>
<td>Radiological findings, e.g., abnormal swallowing studies</td>
</tr>
<tr>
<td></td>
<td>Repeated upper respiratory infections and/or pneumonia</td>
</tr>
</tbody>
</table>

---

2003-2005 Standardized Language Task Force and Terminology Expert Reviewers

**Standardized Language Task Force**

**Chair**
Sylvia Escott-Stump, MA, RD, LDN
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155 Rivers Building, Dept. NUHM
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**Task Force Member 2003-2005**

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**Task Force Member 2003-2005**

**Naomi Tostler, PhD, RD**
Institute of Biochemistry, Food Science, and Nutrition
Faculty of Agriculture, Food and Environmental Quality Sciences
The Hebrew University of Jerusalem
PO Box 12
Rehovot 76100, Israel
**Task Force Member 2004-2005**

**Robin Leonard, RD**
1905 North 24th Street
Shiocton, WI 53081-2124
**Attended Face to Face Meeting in Summer 2003**

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**Staff Liaison 2003-2005**

Lt Col Vivian Hutson, MA, MHA, RD, LD, Fellow,
American College of Healthcare Executives
**Staff Liaison 2003-2004**

---

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### INTAKE DOMAIN – Oral or Nutrition Support Intake

| NI-2.1 | Anne Voss, PhD, RD (Ross Labs) |
| NI-2.2 | Jessica Kranel, MS, RD (University of Nevada) |
| NI-2.3 | Kenneth Kudsk, MD (University of Wisconsin) |
| NI-2.4 | Annalynn Skipper, MS, RD (University of Nebraska-Lincoln) |

### INTAKE DOMAIN – Fluid Intake Balance

| NI-3.1 | Ann Grandjean, EdD, RD (International Center for Sports Nutrition) |
| NI-3.2 | Joel Kopple, MD (UCLA) |

### INTAKE DOMAIN – Bioactive Substances Intake Balance

| NI-4.1 | Johanna Lappe, PhD, RN (Creighton) |
| NI-4.2 | Elizabeth Jeffery, PhD (Univ. of IL, Champaign) |
| NI-4.3 | Janice Harris, PhD, RD (University of Kansas) |

### INTAKE DOMAIN – Nutrient Intake Balance

| NI-5.1 | Carol Braunschweg, PhD, RD (University of Illinois, Chicago) |
| NI-5.2 | Charlotte R. Gallagher Alfred, PhD, RD (Retired-Ross Labs) |
| NI-5.3 | Trisha Fahrmann, MS, RD, FADA, CNSD (Coram, Inc.) |
| NI-5.4 | Jeanmairre Reisegel, PhD, RD (USDA) |
| NI-5.5 | Molly Kretsch, PhD, RD (USDA) |

### INTAKE DOMAIN – Nutrient Balance – Fat and Cholesterol Balance

| NI-51.1 | Alice Lichtenstein, DSc (Tufts) |
| NI-51.2 | Wendy Mueller Cunningham, PhD, RD (Cal State) |
| NI-51.3 | Nancy Lewis, PhD, RD (University of Nebraska-Lincoln) |

### INTAKE DOMAIN – Nutrient Balance – Protein Balance

| NI-52.1 | Don Layman, PhD (University of Illinois-Champaign) |
| NI-52.2 | Linda A. Vaughan, PhD, RD (Arizona State) |
| NI-52.3 | Allison Yates, PhD, RD (Industry, formerly Director of the IOM Food and Nutrition Board) |

### INTAKE DOMAIN – Nutrient Balance – Carbohydrate Balance

| NI-53.1 | Robert Wolfe, PhD (University of Texas Medical Branch) |
| NI-53.2 | Anne Daly, MS, RD |
| NI-53.3 | Lyn Wheeler, MS, RD, CD, FADA, CDE (Indiana University School of Medicine) |
| NI-53.4 | Maggie Powers, MS, RD, CDE (International Diabetes Center) |
| NI-53.5 | Anne Stanek, PhD, RD (University of Minnesota) |
| NI-53.6 | Judith Marlett, PhD, RD (University of Wisconsin) |

### INTAKE DOMAIN – Nutrient Balance – Vitamin Balance

| NI-54.1 | Laurie A. Krezusch, MS, RD (Iowa State) |
| NI-54.2 | Kristina Penniston, PhD, RD (University of Wisconsin) |
### 2003-2005 Standardized Language Task Force and Terminology Expert Reviewers

#### Nutrition Diagnosis Labels

<table>
<thead>
<tr>
<th>Clinical Domain</th>
<th>Dx Label #</th>
<th>Reviewers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CLINICAL DOMAIN – Functional Balance</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swallowing difficulty</td>
<td>NC-1.1</td>
<td>Moshe Shike, MD (Memorial Sloan Kettering)</td>
</tr>
<tr>
<td>Chewing (masticatory) difficulty</td>
<td>NC-1.2</td>
<td>Helen Smiciklas-Wright, PhD, RD (Penn State)</td>
</tr>
<tr>
<td>Breastfeeding difficulty</td>
<td>NC-1.3</td>
<td>Maureen A. Muraugh, PhD, RD (University of Utah)</td>
</tr>
<tr>
<td>Altered GI function</td>
<td>NC-1.4</td>
<td>Larry Cheekin, MD (Johns Hopkins)</td>
</tr>
<tr>
<td><strong>CLINICAL DOMAIN – Biochemical Balance</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impaired nutrient utilization</td>
<td>NC-2.1</td>
<td>Laura Matarase, MS, RD, CNSD (Cleveland Clinic)</td>
</tr>
<tr>
<td>Altered nutrition-related laboratory values</td>
<td>NC-2.2</td>
<td>Denise Baird Schwartz, MS, RD, CNSD (Clinical practice)</td>
</tr>
<tr>
<td>Food-medication interaction</td>
<td>NC-2.3</td>
<td>Andrea Hutchins, PhD, RD (Arizona State University East, Mesa, AZ)</td>
</tr>
<tr>
<td><strong>CLINICAL DOMAIN – Weight Balance</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Underweight</td>
<td>NC-3.1</td>
<td>Bonnie Spear, PhD, RD (University of Alabama, Birmingham)</td>
</tr>
<tr>
<td>Involuntary weight loss</td>
<td>NC-3.2</td>
<td>Joedy Vogelzang, MS, RD, CD, FADAN (Texas Women’s University)</td>
</tr>
<tr>
<td>Overweight/obesity</td>
<td>NC-3.3</td>
<td>Rebecca Mulinis, PhD, RD (Georgia)</td>
</tr>
<tr>
<td>Involuntary weight gain</td>
<td>NC-3.4</td>
<td>Celia Hayes, MS, RD (HRSFA)</td>
</tr>
<tr>
<td><strong>BEHAVIORAL-ENVIRONMENTAL DOMAIN – Knowledge and Beliefs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food- and nutrition-related knowledge deficit</td>
<td>NB-1.1</td>
<td>Penny Kris-Etherton, PhD, RD (Penn State)</td>
</tr>
<tr>
<td>Harmful beliefs/attitudes about food, nutrition, and nutrition-related topics</td>
<td>NB-1.2</td>
<td>Keith-Thomas Ayoub, PhD, RD (Albert Einstein)</td>
</tr>
<tr>
<td>Not ready for diet/lifestyle change</td>
<td>NB-1.3</td>
<td>Geoffrey Greene, PhD, RD (University of Rhode Island)</td>
</tr>
<tr>
<td>Self-monitoring deficit</td>
<td>NB-1.4</td>
<td>Linda Delahanty, MS, RD (Harvard)</td>
</tr>
<tr>
<td>Disordered eating pattern</td>
<td>NB-1.5</td>
<td>Eileen Stelfinon Myers, PhD, RD (Private practice)</td>
</tr>
<tr>
<td>Limited adherence to nutrition-related recommendations</td>
<td>NB-1.6</td>
<td>Ellen Parham, PhD, RD (Northern IL)</td>
</tr>
<tr>
<td>Unsatisfactory food choices</td>
<td>NB-1.7</td>
<td>Kathy Cobb, MS, RD (Centers for Disease Control)</td>
</tr>
<tr>
<td><strong>BEHAVIORAL-ENVIRONMENTAL DOMAIN – Physical Activity Balance and Function</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical inactivity</td>
<td>NB-2.1</td>
<td>Melanie Manner, PhD, RD (Oregon State)</td>
</tr>
<tr>
<td>Excessive exercise</td>
<td>NB-2.2</td>
<td>Katherine Bales, PhD, RD (Industry, formerly Ball State)</td>
</tr>
<tr>
<td>Inability to manage self-care</td>
<td>NB-2.3</td>
<td>Emily Gier, MS, RD (Cornell)</td>
</tr>
<tr>
<td>Impaired ability to prepare foods/meals</td>
<td>NB-2.4</td>
<td>Marla Reicks, PhD, RD (U of MN)</td>
</tr>
<tr>
<td>Poor nutrition quality of life</td>
<td>NB-2.5</td>
<td>Elvira Johnson, MS, RD (Private practice)</td>
</tr>
<tr>
<td>Self-feeding difficulty</td>
<td>NB-2.6</td>
<td>Mary Cluskey, PhD, RD (Oregon State)</td>
</tr>
<tr>
<td><strong>BEHAVIORAL-ENVIRONMENTAL DOMAIN – Food Safety and Access</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intake of unsafe food</td>
<td>NB-3.1</td>
<td>Johanna Dwyer, DSc, RD (Tufts)</td>
</tr>
<tr>
<td>Limited access to food</td>
<td>NB-3.2</td>
<td>Sonndra King, PhD, RD (Northern Illinois University)</td>
</tr>
<tr>
<td><strong>INTAKE DOMAIN – Caloric Energy Balance</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypermetabolism</td>
<td>NI-1.1</td>
<td>Jonathan Waitman, MD for Louis Arnone, MD</td>
</tr>
</tbody>
</table>

**Excess vitamin intake (specify)**
- NI-54.2 Kristina Petterson, PhD, RD (University of Wisconsin)

**Inadequate mineral intake (specify)**
- NI-55.1 Bob Hemsey, MD (Creighton)

**Excessive mineral intake (specify)**
- NI-55.2 Joan Fascher, PhD, RD (University of Georgia)
Implementing Nutrition Diagnosis, Step Two in the Nutrition Care Process and Model: Challenges and Lessons Learned in Two Health Care Facilities

Jennifer Mathieu, Mandy Foast, RD, Patricia Ouellette, RD

OF PROFESSIONAL INTEREST

n adherence to the American Dietetic Association’s (ADA) Strategic Plan goal of establishing and implementing a standardized Nutrition Care Process (NCP) in the hopes of increasing demand and utilization of services provided by members (1); dietician professionals in two health care facilities established an NCP pilot program in 2005, in collaboration with ADA. The pilot sites were the Virginia Hospital Center in Arlington and the Veterans Affairs Medical Center in San Diego, CA. This article gives a background on the NCP and model, the standardized language used in the nutrition diagnosis step, medical record documentation, and an explanation of how the nutrition care process was illustrated in the pilot program. It also provides a time line for each site’s implementation of the NCP, including challenges faced and lessons learned. Similarities and differences in approaches will also be discussed. Managers from both facilities will talk about to facilities who are contemplating implementation of the NCP and nutrition diagnosis in the future.

BACKGROUND

ADA developed a four-step NCP and Model that appeared in the August 2000 issue of the Journal. The NCP consists of four distinct but interrelated and connected steps—Nutrition Assessment, Nutrition Diagnosis, Nutrition Intervention, and Nutrition Monitoring and Evaluation (2). The NCP and Model were developed by the Quality Management Committee Work Group with input from the House of Delegates. This new model calls for dietitians professionals to incorporate a new step—making a nutrition diagnosis— which involves working with defined terminology. It also asks dietitians professionals to chart their diagnosis in the form of a statement that establishes the patient’s problem (diagnostic label), etiology (causes, contributing risk factors), and signs and symptoms (defining characteristics). This is known as a PES statement, and makes up the heart of the NCP’s second step—nutrition diagnosis.

The second step is part of the culture shift,” says Susan Ramsay, MS, RD, CDE, LDN, senior manager of medical nutrition services for Sodexho, who also serves on ADA’s Research Committee. “The second step forces us to make a one-line statement. It brings nutrition assessment into one clear vision. It provides clarity for our work instead of looking for permission from others.”

The nutrition diagnostic labels and reference sheets were developed by the Standardized Language Task Force, chaired by Sylvia Escott-Stump, MA, RD, LDN. It is from this list that dietitians professionals utilizing the NCP list the P (problem) part of their PES statement. According to Escott-Stump, this standardized language will help bring dietitians professionals a new focus and the ability to target their interventions even more effective results that will match the patient nutrition diagnosis (problem).

It is Escott-Stump’s belief that documenting nutrition diagnoses, interventions, and outcomes will allow for dietitians professionals to better track diagnosis over several clients, allowing the profession to be more likely to track the types of nutrition diagnosis that clients have, and to be able to state that the profession affects certain acute and chronic diseases more than others. “For example, now we believe that our impact on cardiovascular, endocrine, and renal diseases is strong, but we may find that our professionals impact gastrointestinal disorders more than others. Also, Averys nutrition care model allows practitioners to be more measurable, creates a format that enables the process to generate quantitative and qualitative data that can then be analyzed and interpreted. It also serves as the structure to validate nutrition care, and shows how the care provided was what it intends to do (2). It also gives the profession a greater sense of autonomy,” says Ramsay. “It’s given us responsibility for our work instead of looking for permission from others.”

At the end of January, the patient-monitoring committee gave the project its approval. Before implementation officially occurred, Foast requested permission and modified the Hulker-Smith Coding Instrument as an auditing tool to evaluate the charts. She also developed a questionnaire for allied health professionals to give feedback on the new system of charting.

On February 16, 2005, the ICU RD, Korinne Umbaugh, officially began submitting all of her notes using the ADI template. Foust audited two to three charts on a weekly basis. She met formally and informally with staff RDs both individually and in groups. Foust says at least 20 minutes of the meeting were spent discussing the new method of charting and reviewing PESS statements. At this time Foust is editing about 10% of the charts.

Implementation of the Program

Virginia Hospital Center

Mandy Foast, RD and Clinical Nutrition Manager of the Virginia Hospital Center, is contracted through Sodexho to oversee patient services at the 400-bed VA Medical Center. In December 2004, Foast, who had learned about PES statements while in school, decided to have her college dietetic interns implement the new nutrition care model in the VA Medical Center.

Foast says after she met with them and presented them with this new model, they were receptive to the changes. The physician working on the hospital’s nutrition committee had concerns about the idea of a new nutrition diagnostic labels. Foast says she reassured him that the new model was only a tool to make a medical diagnosis or interfere with a physician’s orders. Administrators initially had questions about how the new method would benefit patients, but Foast says after she met with them and pre- sented them with this new model, they were receptive to the changes. The physician working on the hospital’s nutrition committee had concerns about the idea of a new nutrition diagnostic labels. Foast says she reassured him that the new model was only a tool to make a medical diagnosis or interfere with a physician’s orders. Administrators initially had questions about how the new method would benefit patients, but Foast says after she met with them and presented them with this new model, they were receptive to the changes. The physician working on the hospital’s nutrition committee had concerns about the idea of a new nutrition diagnostic labels. Foast says she reassured him that the new model was only a tool to make a medical diagnosis or interfere with a physician’s orders. Administrators initially had questions about how the new method would benefit patients, but Foast says after she met with them and presented them with this new model, they were receptive to the changes. The physician working on the hospital’s nutrition committee had concerns about the idea of a new nutrition diagnostic labels. Foast says she reassured him that the new model was only a tool to make a medical diagnosis or interfere with a physician’s orders. Administrators initially had questions about how the new method would benefit patients, but Foast says after she met with them and presented them with this new model, they were receptive to the changes.

After the nutrition committee approved the project in early January 2005, Foast was asked to inform several other hospital staff members about the new model. She wrote policy and procedure guidelines to these letters encouraged Foust to seek approval for the project from the hospital’s patient-monitoring committee. Unfortunately, Foust did not receive as many completed questionnaires as she hoped for from all dietitians professionals. However, her periodic audits showed that by the end of April the staff had become much more comfortable with the process defined a common language that allowed nutritionists to share the implementation of the nutrition care model. She also noted that the medical director of the ICU, two ICU nurse educators, and the ICU patient care directors via formal letters. Responses to those letters were necessary for the project from the hospital’s patient-monitoring committee. During the end of January while waiting for a response from the patient-monitoring committee, Foast met for about an hour each week with the RD who would be the first to use the new method. The RD used actual patients from her daily census to begin training. This group of dietitians professionals will receive additional training and networking opportunities to assist them as they implement this new model within the facility and then share their knowledge with other dietitians professionals in their geographic region.

Their experiences will be used to determine what additional implementation tools are needed. In addition, a formal research project will be conducted through the Dietetics Practice Based Research Network in early 2006.

According to Dr Esther Myers,
Both managers suggest setting aside a generous portion of the weekly staff meeting time to discuss the model, review PESS statements, answer questions, and motivate the staff with positive feedback.

While Foust and Ouellette had different experiences in terms of seeking approval from the administration to implement the program, both suggest allowing time to meet with the necessary people in the facility, as the approval needed will differ from facility to facility.

Most of all, Ouellette and Foust suggest that future managers and staffs remind themselves that transitioning to the nutrition care model is a beneficial but time-consuming process that requires patience. Both say they have seen marked improvements among their staff over time, and many of the initial challenges have been overcome with patience and practice.

“Changing the way you’re charting and implementing new techniques can cause doubt. This can potentially alter their clinical self-confidence, and you want to maintain a positive outlook to avoid this,” says Foust. “Both Foust and Ouellette say it was beneficial to work in groups on PESS statements and learn from each other, being sure to highlight well-written charts as well as the ones that the staff felt were not up to par. This enables RDs to see examples of what could be done better and to think about their own charts. It’s certainly a worthwhile thing.”

Adaps Foust, “This continues to be a very excellent groundbreaking experience for the staff.”

The authors would like to acknowledge all the other dietetic professionals who have contributed to the building of the nutrition care model and have been interoperable in the process. This project was supported in part by the Nutrition Care Process and Model: ADA adopts road map to quality care and outcomes management. J Am Diet Assoc. 2003;103:1061-1072.

References
TIMELINES OF IMPLEMENTATION
Virginia Hospital Center

December 2004
- Idea of participating in pilot project presented to facility.
- Staff in-service held to educate staff about the NCP, ADI charting, and PESS statements.
- Meetings between clinical nutrition manager and hospital administrators to discuss the NCP and seek approval for participation in the pilot project.

January 2005
- Hospital nutrition committee approves the pilot project.
- Other hospital administrators, including those on the unit where the first RD to participate in the project works, are informed of the pilot project.
- The hospital’s patient-monitoring committee approves the pilot project.
- Throughout the month of January, the first RD to take part in the project meets regularly with clinical nutrition manager to practice ADI charting and PESS statements.
- Clinical nutrition manager obtains permission and modifies the Hakel-Smith Coding Instrument as a way of auditing charts.

February 2005
- From early to mid-February, the first RD to participate in the project charts using both the ADI and SOAP formats before formally transitioning to the ADI method alone on February 16.
- In late February, a second RD begins to exclusively use the ADI method of charting.

March 2005
- By the end of March, a third RD has transitioned to the ADI method of charting.
- Throughout the entire process, the clinical nutrition manager meets formally and informally with RDs both individually and in groups to discuss concerns and monitor progress.
- Throughout the process, at least 20 minutes of each weekly staff meeting are devoted to reviewing the ADI method of charting, PESS statements, questions, and concerns.

April 2005
- By the start of April, a fourth RD is exclusively using the ADI method of charting; with the fifth and final RD making the transition by mid-April.

- The clinical nutrition manager audits 10% of charts.

Veterans Affairs Medical Center, San Diego

January 2004
- Director of nutrition and food services distributes journal articles about the NCP to staff.

October 2004
- Two staff members attend the Nutrition Diagnosis Roundtable for Educators workshop at ADA’s Food and Nutrition Conference and Exhibition and share what they learn with the rest of the staff upon their return.

November 2004
- A staff meeting is held to discuss questions and concerns surrounding the NCP and PESS statements.

December 2004
- ADA’s Karen Lacey, Chair of ADA’s Quality Management Working Group on the NCP, provides the staff with a workshop on the NCP.

February 2005
- The staff begins to devote time during each weekly staff meeting to practice using the new method and to share PESS statements.
- Several staff members, including the staff’s performance improvement/information technology dietitian, develop a point-and-click computer version of the ADI template for the staff to use.

March 2005
- Toward the end of March, the staff spends 1 week using both the SOAP format and the new ADI template to chart notes.

April 2005
- On April 4, the staff officially implements the new method of charting exclusively.
- The deputy director of nutrition and food service checks each inpatient initial nutrition assessment chart note and provides feedback to individuals.

May 2005
- Ongoing auditing was accomplished by incorporating the auditing elements into the periodic performance review plan implemented to ensure continuous readiness for the Joint Commission on Accreditation of Healthcare Organization’s review.

NUTRITION CARE PROCESS AND MODEL WORK GROUP
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Elvira Johnson, MS, RD
Kessey Kieselhorst, MPA, RD
Mary Jane Oakland, PhD, RD, FADA
Carlene Russell, RD, FADA
Patricia Splett, PhD, RD, FADA

Staff Liaisons:
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FEEDBACK FORM

We welcome feedback on revisions to this reference for Nutrition Diagnosing. After evaluating each section, please indicate whether you would recommend that the section should be included in the next edition. Following this, please identify other questions that you would like answered in the next version. Finally, any additional materials you would find helpful is appreciated. Thank you for your time.

<table>
<thead>
<tr>
<th>Should the following items should be included in the next version:</th>
<th>Please Check (✓) YES NO</th>
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<tbody>
<tr>
<td>The Nutrition Care Process: Nutrition Care Process and Model Article</td>
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<tr>
<td>Development of Standardized Language: American Dietetic Association’s Standardized Language Model/Current Status</td>
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<td>Introduction to Nutrition Diagnoses/Problems</td>
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<td>Nutrition Diagnosis Reference Sheets: Single page list of Nutrition Diagnostic Terminology</td>
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<td>Nutrition Diagnosis Terms and Definitions: Table of Contents for next document</td>
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<td>Nutrition Diagnosis Reference Sheets (128 pages)</td>
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<td>Procedure for Nutrition Controlled Vocabulary/Terminology Maintenance/Review</td>
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<td>Camera Ready Pocket Guide</td>
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What questions would you like answered in the 2007 version?

What additional materials would be helpful in the 2007 version?

Please remove this form from packet and mail to:
Scientific Affairs and Research
Nutrition Care Process/Standardized Language Committee
American Dietetic Association
120 South Riverside Plaza, Suite 2000
Chicago, IL 60606-6995

You can also email this information to: cchanner@eatright.org
### NUTRITION DIAGNOSTIC TERMINOLOGY

#### Vitamin (54)
- Inadequate vitamin intake (specify) NI-54.1
- Executive vitamin intake (specify) NI-54.2
  - A
  - C
  - Thiamin
  - Riboflavin
  - Nicin
  - Others

#### Mineral (55)
- Inadequate mineral intake (specify) NI-55.1
- Executive mineral intake (specify) NI-55.2
  - Calcium
  - Iron
  - Zinc
  - Others

#### CLINICAL

**Defined as:***NUTRITIONAL*findings/feelings identified as related to medical or physical condition***

- Weight (3)
  - Underweight NC-3.1
  - Inadequate weight loss NC-3.2
  - Overweight NC-3.3
  - Inadequate weight gain NC-3.4
  - Weight: serving as an indicator of various underlying conditions NC-3.5

- Knowledge and Behaviors (4)
  - Nutritional knowledge and beliefs as related to food, eating, nutrition, and lifestyle NC-4.1
  - General nutrition knowledge NC-4.2
  - Food-related behaviors: dietary intake, eating habits, etc., to control weight NC-4.3
  - Appetite changes (anorexia, obesity, etc.) NC-4.5

#### Functional (5)

**Defined as:***changes in physical or mechanical functioning that interfere with or prevent desired nutritional consequences***

- Inadequate vitamin intake (specify) NC-5.1
- Vitamin deficiency (specify) NC-5.2

- Inadequate mineral intake (specify) NC-5.3
- Mineral deficiency (specify) NC-5.4

- Other deficiencies (specify) NC-5.5

#### Biochemical (2)

**Defined as:***changes in serum or other body fluid levels as a result of medications, surgery, or as indicated by altered lab values***

- Impaired vitamin utilization NC-2.1
- Impaired mineral utilization NC-2.2

- Other biochemical abnormalities (specify) NC-2.3

- Impaired nutrition-related laboratory values (specify) NC-2.4

#### Food-medicine interaction NC-2.5

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- Impaired nutrient utilization NC-2.2

- Impaired nutrition-related laboratory values (specify) NC-2.3

- Food-medicine interaction NC-2.4

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### BEHAVIORAL-ENVIRONMENTAL

**Defined as:***nutritional findings/feelings identified as related to knowledge, attitude, beliefs, et al., physical environment, or food supply and safety***

- Food habits: quality, variety, intake, etc. NC-1.1
- Physical activity and functioning NC-1.2
- Nutritional knowledge and beliefs NC-1.3
- Other environmental influences (specify) NC-1.4

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### Physical Activity and Function (2)

**Defined as:***changes in physical activity, self care, and quality of life problems as reported, observed, or documented***

- Physical inactivity NC-2.1
- Excessive exercise NC-2.2
- Impaired ability to prepare foods NC-2.3
- Poor nutrition quality of life NC-2.4
- Self-feeding difficulties NC-2.5

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### Food Safety and Access (3)

**Defined as:***nutritional problems with food access or food safety***

- Inadequate food access NC-3.1
- Limited access to food NC-3.2