

## NUTRITION DIAGNOSES

### Most Common – Outpatient

06/2011

Nutrition Diagnostic Statement	Etiology (Cause/Contributing Factors)	Signs and Symptoms (Defining characteristics)
<p><b>NI-5.8.2</b>  <b>Excessive CHO Intake</b>  <b>“Intake more than the recommended level and type of carbohydrate compared to established reference standards or recommendations based on physiological stress.”</b></p>	<ul style="list-style-type: none"> <li>• Physiological causes requiring modified carbohydrate intake, e.g., DM, lactase deficiency, sucrase-isomaltase deficiency, aldolase-B deficiency</li> <li>• Cultural practices that affect the ability to reduce carbohydrate intake</li> <li>• Food and nutrition related knowledge deficit concerning appropriate <i>amount</i> of carbohydrate intake</li> <li>• Food and nutrition compliance limitations, e.g., lack of willingness or failure <i>to modify</i> carbohydrate intake in response to recommendations from a dietitian or physician.</li> <li>• Psychological causes such as depression and disordered eating.</li> </ul> <p>Note: Use the exact cause when known such as 'diabetes' instead of 'Physiological causes...'</p>	<ul style="list-style-type: none"> <li>• Hyperglycemia (fasting blood sugar &gt;126 mg/dL)</li> <li>• Hemoglobin A1C &gt;6%</li> <li>• Abnormal oral glucose tolerance test (2-hour post load glucose &gt;200 mg/dL)</li> <li>• Dental caries</li> <li>• Diarrhea in response to carbohydrate feeding</li> </ul> <p>Reports or observations of:</p> <ul style="list-style-type: none"> <li>• Cultural or religious practices that do not support modification of dietary carbohydrate intake.</li> <li>• Estimated carb intake that is consistently more than rec amounts.</li> <li>• Chronic use of medications that cause hyperglycemia e.g., steroids</li> <li>• Conditions associated with a dx or tx e.g. DM, inborn errors of metabolism, lactase deficiency, severe infection, sepsis or obesity</li> <li>• Pancreatic insufficiency resulting in reduced insulin production</li> <li>• Economic constraints that limit availability of appropriate foods</li> </ul>
<p><b>NI-5.8.4</b>  <b>Inconsistent CHO Intake</b>  <b>“Inconsistent timing of CHO intake throughout the day, day to day, or a pattern of CHO intake that is not consistent with recommended pattern based on physiological or medication needs”</b></p>	<ul style="list-style-type: none"> <li>• Physiological causes requiring careful timing and consistency in the am't of CHO, e.g., DM, Hypoglycemia, EN delivery.</li> <li>• Cultural practices that affect the ability to regulate timing of carbohydrate consumption</li> <li>• Food and nutrition related knowledge deficit concerning appropriate <i>timing</i> of carbohydrate intake</li> <li>• Food and nutrition compliance limitations, e.g., lack of willingness or failure to modify carbohydrate <i>timing</i> in response to recommendations from a dietitian or physician.</li> <li>• Psychological causes such as depression and disordered eating.</li> </ul> <p>Note: Use the exact cause when known such as 'diabetes' instead of 'Physiological causes...'</p>	<ul style="list-style-type: none"> <li>• Hypoglycemia or hyperglycemia documented on regular basis associated with inconsistent CHO intake</li> <li>• Wide variations in blood glucose levels</li> </ul> <p>Reports or observations of:</p> <ul style="list-style-type: none"> <li>• Estimated CHO intake that is different from recommended types or ingested on an irregular basis</li> <li>• Use of insulin or insulin secretagogues.</li> <li>• Chronic use of medications that cause altered glucose levels e.g., steroids, antidepressants, antipsychotics</li> <li>• Conditions associated with a diagnosis or treatment, e.g., DM, obesity, metabolic syndrome, hypoglycemia</li> <li>• Economic constraints that limit availability of appropriate foods</li> </ul>

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<p align="center"><b>NI-5.8.3</b> <b>Inappropriate intake of types of CHO</b> “Intake of the type or amount of carbohydrate that is more or less than the established reference standards or recommendations based on physiological needs.”</p> <p>Note: Types of carbohydrate can refer generally to sugars, starch and fiber or specific carbohydrates (e.g., sucrose, fructose, lactose). Intolerance to the protein component of grains (e.g., gluten) should be documented using the Inappropriate Intake of Proteins or Amino Acids (NI-5.7.3) reference sheet</p>	<ul style="list-style-type: none"> <li>• Physiological causes requiring careful use of modified carbohydrate, e.g., intolerance, inborn errors of carbohydrate metabolism.</li> <li>• Cultural practices that affect the ability to regulate types of carbohydrate consumed</li> <li>• Food- and nutrition-related knowledge deficit concerning appropriate amount or types of CHO</li> <li>• Food and nutrition compliance limitations, e.g., lack of willingness or failure to modify carbohydrate intake in response to recommendations from a dietitian, physician, or caregiver</li> <li>• Psychological causes such as depression and disordered eating</li> </ul>	<ul style="list-style-type: none"> <li>• Hypoglycemia or hyperglycemia</li> <li>• Weight loss, inability to gain weight, delayed growth</li> <li>• Diarrhea in response to certain types of carbohydrates</li> <li>• Abdominal pain, distention, constipation, reflux, GERD</li> </ul> <p>Reports or observations of:</p> <ul style="list-style-type: none"> <li>• Carbohydrate intake that is different from recommended types or exceeds amount recommended for that specific type of carbohydrate</li> <li>• Limited knowledge of carbohydrate composition of foods or of carbohydrate metabolism</li> <li>• Chronic use of medications that cause altered glucose levels, e.g., steroids, antidepressants, antipsychotics or contains a type of carbohydrate not recommended</li> <li>• Conditions associated with a diagnosis or treatment, e.g., intolerance, inborn errors of metabolism</li> <li>• Allergic reactions or intolerance to certain carbohydrate foods or food groups</li> <li>• Economic constraints that limit availability of appropriate foods</li> </ul>
<p align="center"><b>NI-5.8.5</b> <b>Inadequate fiber intake</b> "Lower intake of fiber compared to established reference standards or recommendations based on physiological needs."</p>	<ul style="list-style-type: none"> <li>• Lack of or limited access to fiber-containing foods/fluids</li> <li>• Food and nutrition-related knowledge deficit concerning desirable quantities of fiber</li> <li>• Psychological causes such as depression and disordered eating.</li> <li>• Prolonged adherence to a low-fiber or low-residue diet</li> <li>• Difficulty chewing or swallowing high-fiber foods</li> <li>• Economic constraints that limit availability of appropriate foods</li> <li>• Inability or unwillingness to purchase or consume fiber-containing foods</li> <li>• Inappropriate food preparation practices, e.g., reliance on overprocessed, overcooked foods</li> </ul>	<ul style="list-style-type: none"> <li>• Inadequate fecal bulk</li> </ul> <p>Reports or observations of:</p> <ul style="list-style-type: none"> <li>• Estimated intake of fiber that is insufficient when compared to recommended amounts (38 g/day for men and 25 g/day for women)</li> <li>• Conditions associated with a diagnosis or treatment, e.g., ulcer disease, inflammatory bowel disease, or short-bowel syndrome treated with a low-fiber diet</li> </ul>

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<p align="center"><b>NC-3.3</b></p> <p align="center"><b>Overweight/Obesity</b></p> <p>“Increased adiposity compared to established reference standards or recommendations, ranging from overweight to morbid obesity”</p>	<ul style="list-style-type: none"> <li>• Decreased energy needs</li> <li>• Disordered eating pattern</li> <li>• Excessive energy intake</li> <li>• Food- and nutrition-related knowledge deficit</li> <li>• Not ready for diet/lifestyle change</li> <li>• Physical inactivity</li> <li>• Increased psychological/life stress</li> </ul>	<ul style="list-style-type: none"> <li>• BMI more than normative standard for age and sex: <ul style="list-style-type: none"> <li>Overweight 25-29.9      Obesity-grade I 30-34.9</li> <li>Obesity-grade II 35-39.9      Obesity-grade III 40+</li> </ul> </li> <li>• Waist circumference above normative standards for age and sex</li> <li>• Increased skinfold thickness</li> <li>• Body fat percentage &gt;25% for men and &gt;32% for women</li> <li>• Weight for height more than normative standards for age and sex</li> <li>• Increased body adiposity</li> </ul> <p>Reports or observations of:</p> <ul style="list-style-type: none"> <li>• Over consumption of high-fat and/or calorie-dense food or beverage</li> <li>• Large portions of food (portion size more than twice than recommended)</li> <li>• Estimated excessive energy intake</li> <li>• Infrequent, low-duration and/or low-intensity physical activity.</li> <li>• Large amounts of sedentary activities, e.g., TV watching, reading, computer use in both leisure and work/school</li> <li>• Uncertainty regarding nutrition-related recommendations</li> <li>• Inability to apply nutrition-related recommendations</li> <li>• Unwillingness or disinterest in applying-nutrition-related recommendations</li> </ul> <p>Reports or observations of:</p> <ul style="list-style-type: none"> <li>• Inability to lose significant amount of excess weight through conventional weight loss interventions.</li> <li>• Medications that impact RMR, e.g., midazolam, propranolol, glipizide</li> <li>• Conditions associated with a diagnosis or treatment, e.g., hypothyroidism, metabolic syndrome, eating disorder not otherwise specified, depression</li> <li>• Physical disability or limitation</li> <li>• History of familial obesity</li> <li>• History of childhood obesity</li> <li>• History of physical, sexual or emotional abuse</li> </ul>

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<p align="center"><b>NI-1.5</b></p> <p><b>Excessive Energy Intake</b>  “Energy intake that exceeds energy expenditure, established reference standards, or recommendations based on physiological needs. Exception: when weight gain is desired.”</p>	<ul style="list-style-type: none"> <li>• Harmful beliefs/attitudes about food, nutrition, and nutrition-related topics</li> <li>• Food and nutrition related knowledge deficit concerning energy intake.</li> <li>• Lack of or limited access to healthful food choices, e.g., healthful food choices not provided as an option by caregiver or parent, homeless</li> <li>• Lack of value for behavior change, competing values (describe in assessment)</li> <li>• Medications that increase appetite, e.g., steroids, antidepressants</li> <li>• Overfeeding of enteral nutrition (PN/EN)</li> <li>• Calories unaccounted for from IV infusion and/or medications</li> <li>• Unwilling or disinterested in reducing energy intake</li> <li>• Failure to adjust for lifestyle changes and decreased metabolism (e.g., aging)</li> <li>• Failure to adjust for restricted mobility due to recovery from injury, surgical procedure</li> <li>• Resolution of prior hypermetabolism without reduction in intake</li> </ul>	<ul style="list-style-type: none"> <li>• Respiratory quotient &gt;1.0</li> <li>• Abnormal liver function tests after prolonged exposure (3-6 weeks)</li> <li>• Body fat percentage &gt; 25% for men and &gt; 32% for women</li> <li>• BMI &gt; 25 (adults)</li> <li>• Weight gain</li> <li>• Increased body adiposity</li> <li>• Increased respiratory rate</li> </ul> <p>Reports or observations of:</p> <ul style="list-style-type: none"> <li>• Intake of high caloric density or large portions of foods/beverages</li> <li>• EN/PN more than estimated or measured (e.g., indirect calorimetry) energy expenditure</li> </ul>
<p align="center"><b>NC-3.4</b></p> <p><b>Unintended* Weight Gain</b>  “Weight gain more than that which is desired or planned.”</p> <p>*If a synonym, or alternate word with the same meaning, for the term “unintended” is helpful or needed, an approved alternate is the word “involuntary.”</p>	<ul style="list-style-type: none"> <li>• Illness causing unexpected weight gain because of head trauma, immobility, paralysis or related condition</li> <li>• Chronic use of medications known to cause weight gain, such as use of certain antidepressants, antipsychotics, corticosteroids, certain HIV medications</li> <li>• Condition leading to excessive fluid weight gains</li> </ul>	<ul style="list-style-type: none"> <li>• Decrease in serum albumin, hyponatremia, elevated fasting serum lipid levels, elevated fasting glucose levels, fluctuating hormone levels</li> <li>• Increased weight, any increase in weight more than planned or desired, such as 10% in 6 months</li> <li>• Fat accumulation, excessive subcutaneous fat stores, noticeable change in body fat distribution</li> <li>• Extreme hunger with or without palpitations, tremor, and sweating</li> <li>• Edema. Shortness of breath, muscle weakness, fatigue</li> </ul> <p>Reports or observations of:</p> <ul style="list-style-type: none"> <li>• Estimated Intake inconsistent with estimated or measured energy needs</li> <li>• Changes in recent estimated food intake level</li> <li>• Fluid administration more than requirements</li> <li>• Use of alcohol, narcotics</li> <li>• Medications associated with increased appetite</li> <li>• Physical inactivity or change in physical activity level</li> <li>• Conditions associated with a diagnosis or treatment of asthma, psychiatric illnesses, rheumatic conditions, Cushing’s syndrome, obesity, Prader-Willi syndrome, hypothyroidism</li> </ul>

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<p align="center"><b>NI-2.2</b></p> <p align="center"><b>Excessive Oral Intake</b></p> <p>“Oral food/beverage intake that exceeds estimated energy needs, established reference standards, or recommendations based on physiological needs. Exception: when weight gain is desired.”</p>	<ul style="list-style-type: none"> <li>• Harmful beliefs/attitudes about food, nutrition, and nutrition-related topics</li> <li>• Food- and nutrition-related knowledge deficit concerning appropriate oral food/beverage intake</li> <li>• Lack of or limited access to healthful food choices, e.g., healthful food choices not provided as an option by caregiver or parent, homeless</li> <li>• Lack of value for behavior change, competing values (describe in assessment)</li> <li>• Inability to limit or refuse offered foods</li> <li>• Lack of food planning, purchasing, and preparation skills</li> <li>• Loss of appetite awareness</li> <li>• Medications that increase appetite, e.g., steroids, antidepressants</li> <li>• Psychological causes such as depression and disordered eating</li> <li>• Unwilling or disinterested in reducing intake</li> </ul>	<ul style="list-style-type: none"> <li>• Weight gain not attributed to fluid retention or normal growth</li> </ul> <p>Reports or observations of:</p> <ul style="list-style-type: none"> <li>• Intake of high caloric-density foods/beverages (juice, soda, or alcohol) at meals and/or snacks</li> <li>• Intake of large portions of foods/beverages, food groups, or specific food items</li> <li>• Estimated intake that exceeds estimated or measured energy needs</li> <li>• Highly variable estimated daily energy intake</li> <li>• Binge eating patterns</li> <li>• Frequent, excessive fast food or restaurant intake</li> </ul> <ul style="list-style-type: none"> <li>• Conditions associated with a diagnosis or treatment, e.g., obesity, overweight, or metabolic syndrome, depression, anxiety disorder</li> </ul>
<p align="center"><b>NB-2.1</b></p> <p align="center"><b>Physical Inactivity</b></p> <p>“Low level of activity/sedentary behavior to the extent that it reduces energy expenditure and impacts health.”</p>	<ul style="list-style-type: none"> <li>• Harmful beliefs/attitudes about physical activity</li> <li>• Injury, lifestyle change, condition (e.g., advanced stages of cardiovascular disease, obesity, kidney disease), physical disability or limitation that reduces physical activity or activities of daily living</li> <li>• Food and nutrition related knowledge deficit concerning health benefits of physical activity</li> <li>• Lack of prior exposure to accurate nutrition-related information</li> <li>• Lack of social support for implementing changes</li> <li>• Lack of or limited access to safe exercise environment and/or equipment</li> <li>• Lack of value for behavior change or competing values (describe under assessment)</li> <li>• Time constraints</li> <li>• Financial constraints that may prevent sufficient level of activity (cost of equipment/shoes or club membership to gain access)</li> </ul>	<ul style="list-style-type: none"> <li>• Obesity—BMI &gt; 30 (adults)</li> <li>• Excessive subcutaneous fat and low muscle mass</li> </ul> <p>Reports or observations of:</p> <ul style="list-style-type: none"> <li>• Infrequent, low duration and/or low intensity physical activity</li> <li>• Large amounts of sedentary activities, e.g., TV watching, reading, computer use in both leisure and work/school</li> <li>• Low level of NEAT (non-exercise activity thermogenesis) expended by physical activities other than planned exercise, e.g., sitting, standing, walking, fidgeting</li> <li>• Low cardiorespiratory fitness and/or low muscle strength</li> <li>• Medications that cause somnolence and decreased cognition</li> <li>• Medical diagnoses that may be associated with or result in decreased activity, e.g., arthritis, chronic fatigue syndrome, morbid obesity, knee surgery</li> <li>• Psychological diagnosis, e.g., depression, anxiety disorders</li> </ul>

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<p align="center"><b>NI-5.6.2</b></p> <p align="center"><b>Excessive Fat intake</b></p> <p>“Higher fat intake compared to established reference standards or recommendations based on physiological needs.”</p>	<ul style="list-style-type: none"> <li>• Food- and nutrition-related knowledge deficit concerning appropriate amount of dietary fat</li> <li>• Harmful beliefs/attitudes about food, nutrition, and nutrition-related topics</li> <li>• Lack of or limited access to healthful food choices, e.g., healthful food choices not provided as an option by caregiver or parent, homeless</li> <li>• Changes in taste and appetite or preference</li> <li>• Lack of value for behavior change, competing values</li> </ul>	<ul style="list-style-type: none"> <li>• 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)</li> <li>• Elevated serum amylase and/or lipase</li> <li>• Elevated LFTs, T. Bili</li> <li>• Fecal fat &gt; 7g/24 hours</li> <li>• Evidence of xanthomas</li> <li>• Diarrhea, cramping, steatorrhea, epigastric pain</li> </ul> <p>Reports or observations of:</p> <ul style="list-style-type: none"> <li>• Frequent or large portions of high-fat foods</li> <li>• Frequent food preparation with added fat</li> <li>• Frequent consumption of high risk lipids (i.e., saturated fat, trans fat, cholesterol)</li> <li>• Report of foods containing fat more than diet prescription</li> <li>• Medication, e.g., pancreatic enzymes, cholesterol- or other lipid-lowering medications</li> <li>• Conditions associated with a diagnosis or treatment, e.g., hyperlipidemia, cystic fibrosis, angina, atherosclerosis, pancreatic, liver, and biliary diseases, post-transplantation</li> <li>• Family history of hyperlipidemia, atherosclerosis, or pancreatitis</li> </ul>
<p align="center"><b>NI-5.6.3</b></p> <p align="center"><b>Inappropriate Intake of Fats (specify)</b></p> <p>"Intake of wrong type or quality of fats compared to established reference standards or recommendation based on physiological needs."</p>	<ul style="list-style-type: none"> <li>• Food- and nutrition-related knowledge deficit concerning type of fat (fats added to food)</li> <li>• Harmful beliefs/attitudes about food, nutrition, and nutrition-related topics</li> <li>• Lack of or limited access to healthful food choices, e.g., healthful food choices not provided as an option by caregiver or parent, homeless</li> <li>• Changes in taste and appetite or preference</li> <li>• Lack of value for behavior change, competing values</li> </ul>	<ul style="list-style-type: none"> <li>• 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)</li> <li>• Elevated serum amylase and/or lipase</li> <li>• Elevated LFTs, T. Bili, C-reactive protein</li> <li>• Evidence of dermatitis</li> <li>• Diarrhea, cramping, steatorrhea, epigastric pain</li> </ul> <p>Reports or observations of:</p> <ul style="list-style-type: none"> <li>• Frequent food preparation with added fat that is not of desired type for condition</li> <li>• Frequent consumption of fats that are undesirable for condition (i.e., saturated fat, trans fat, cholesterol, n-6 fatty acids)</li> <li>• Estimated intake of monounsaturated, polyunsaturated, n-3 fatty acids, or DHA/ARA less than recommended or in suboptimal ratio</li> <li>• Conditions associated with a dx or treatment of DM, cardiac diseases, obesity, liver or biliary disorders</li> <li>• Family hx of diabetes-related heart disease, hyperlipidemia, atherosclerosis or pancreatitis</li> </ul>

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<p><b>NB-1.6</b>  <b>Limited Adherence to Nutrition-related recommendations</b>            “Lack of nutrition-related changes as per intervention agreed on by client or population.”</p>	<ul style="list-style-type: none"> <li>• Lack of social support for implementing changes</li> <li>• Lack of value for behavior change or competing values</li> <li>• Perception that lack of resources (e.g. time or financial, or interpersonal) prevent changes</li> <li>• Previous lack of success in making health-related changes</li> <li>• Food and nutrition-related knowledge deficit concerning how to make nutrition-related changes</li> <li>• Unwilling or uninterested in applying information</li> </ul>	<ul style="list-style-type: none"> <li>• Expected laboratory outcomes are not achieved</li> <li>• Expected anthropometric outcomes are not achieved</li> <li>• Negative body language, e.g., frowning, lack of eye contact, fidgeting (Note: body language varies by culture)</li> </ul> <p>Reports or observations of:</p> <ul style="list-style-type: none"> <li>• Expected food/nutrition-related outcomes are not achieved</li> <li>• Inability to recall changes agreed upon</li> <li>• Failure to complete any agreed on homework</li> <li>• Lack of compliance or inconsistent compliance with plan</li> <li>• Failure to keep appointments or schedule follow-up appointments</li> <li>• Lack of appreciation of the importance of making recommended nutrition-related changes</li> <li>• Uncertainty as to how to consistently apply food/nutrition information</li> </ul>
<p><b>NB-1.1</b>  <b>Food- and Nutrition-related knowledge deficit</b>            “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.”</p>	<ul style="list-style-type: none"> <li>• Harmful beliefs/attitudes about food, nutrition, and nutrition-related topics</li> <li>• Lack of prior exposure to accurate nutrition-related information</li> <li>• Cultural beliefs that affect ability to learn/apply information</li> <li>• Impaired cognitive ability, including learning disabilities, neurological or sensory impairment, and/or dementia</li> <li>• Prior exposure to incorrect information</li> <li>• Unwilling or disinterested in learning/applying information</li> </ul>	<p>Reports or observations of:</p> <ul style="list-style-type: none"> <li>• Verbalizes inaccurate or incomplete information</li> <li>• Provides inaccurate or incomplete written response to questionnaire/written tool or is unable to read written tool</li> <li>• No prior knowledge of need for food- and nutrition-related recommendations</li> <li>• Demonstrates inability to apply food- and nutrition-related information, e.g., select food based on nutrition therapy</li> <li>• Relates concerns about previous attempts to learn information</li> <li>• Verbalizes unwillingness or disinterest in learning information</li> <li>• Conditions associated with a diagnosis or treatment, e.g., mental illness</li> <li>• New medical diagnosis or change in existing diagnosis or condition</li> </ul>
<p><b>NB-1.2</b>  <b>Harmful Beliefs/Attitudes about Food or Nutrition-related topics</b>            "Beliefs/attitudes or practices about food, nutrition, and nutrition-related topics that are incompatible with sound nutrition principles, nutrition care, or disease/condition</p>	<ul style="list-style-type: none"> <li>• Disbelief in science-based food and nutrition information</li> <li>• Lack of prior exposure to accurate nutrition-related information</li> <li>• Eating behavior serves a purpose other than nourishment (e.g., pica)</li> <li>• Desire for a cure for a chronic disease through the use of alternative therapy</li> </ul> <p>Note: Use with caution. Be sensitive to pt concerns.</p>	<p>Reports or observations of:</p> <ul style="list-style-type: none"> <li>• Food faddism</li> <li>• Estimated intake that reflects an imbalance of nutrient/food groups</li> <li>• Avoidance of foods/food groups (e.g., sugar, wheat, cooked foods)</li> <li>• Conditions associated with a dx or treatment e.g., obesity, diabetes, cancer, cardiovascular disease, mental illness</li> <li>• Pica</li> <li>• Food fetish</li> </ul> <p>(excludes disordered eating patterns and eating disorders)</p>

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<p align="center"><b>NI-5.4</b></p> <p align="center"><b>Decreased Nutrient Needs (specify)</b></p> <p align="center">“Decreased need for a specific nutrient compared to established reference standards or recommendations based on physiological needs”</p>	<ul style="list-style-type: none"> <li>• Renal dysfunction</li> <li>• Liver dysfunction</li> <li>• Altered cholesterol metabolism/regulation</li> <li>• Heart failure</li> <li>• Food intolerances, e.g., irritable bowel syndrome</li> </ul>	<ul style="list-style-type: none"> <li>• Total 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)</li> <li>• Phosphorus &gt;5.5 mg/dL (1.78 mmol/L)</li> <li>• Glomerular filtration rate (GFR) &lt;90 mL/min/1.73<sup>2</sup></li> <li>• Elevated BUN, creatinine, potassium</li> <li>• Liver function tests indicating severe liver disease</li> <li>• Interdialytic weight gain greater than expected</li> <li>• Edema/fluid retention</li> <li>• Reports or observations of estimated intake higher than recommended for fat, phosphorus, sodium, protein, fiber</li> <li>• Conditions associated with a diagnosis or treatment that require a specific type and/or amount of nutrient, e.g., cardiovascular (fat), early renal disease (protein, phos), ESRD (phos, sodium, potassium, fluid), advanced liver disease (protein), heart failure (sodium, fluid), irritable bowel disease/Crohn’s flare up (fiber)</li> <li>• Diagnosis of hypertension, confusion related to liver disease</li> </ul>
<p align="center"><b>NI-5.1</b></p> <p align="center"><b>Increased Nutrient Needs (Specify)</b></p> <p align="center">“Increased need for a specific nutrient compared to established reference standards or recommendations based upon physiological needs”</p>	<ul style="list-style-type: none"> <li>• Altered absorption or metabolism of nutrient, e.g., from medications</li> <li>• Compromise of organs related to GI function, e.g., pancreas, liver</li> <li>• Decreased functional length of intestine, e.g., short-bowel syndrome</li> <li>• Decreased or compromised function of intestine, e.g., celiac disease, Crohn’s disease</li> <li>• Food and nutrition-related knowledge deficit concerning sufficient nutrient intake</li> <li>• Increased demand for nutrient, e.g., accelerated growth, wound healing, chronic infection</li> </ul>	<ul style="list-style-type: none"> <li>• Decreased cholesterol &lt; 160 mg/dl, albumin, prealbumin, C-reactive protein indicating increased stress and increased metabolic needs</li> <li>• Electrolyte/mineral (e.g., potassium, magnesium, phosphorus) abnormalities</li> <li>• Urinary or fecal losses of specific or related nutrients (e.g., fecal fat, d-xylose test)</li> <li>• Vitamin and/or mineral deficiency</li> <li>• Growth failure, based on National Center for Health Statistics (NCHS) growth standards and fetal growth failure</li> <li>• Unintentional weight loss of ≥5% in 1 month or ≥10% in 6 months.</li> <li>• Underweight (BMI &lt; 18.5)</li> <li>• Low percent body fat and muscle mass</li> <li>• Clinical evidence of vitamin/mineral deficiency (e.g., hair loss, bleeding gums, pale nail beds)</li> <li>• Loss of skin integrity, delayed wound healing, or pressure ulcers</li> <li>• Loss of muscle mass, subcutaneous fat</li> <li>Reports or observations of:</li> <li>• Estimated intake of foods/supplements containing needed nutrient less than estimated requirements</li> <li>• Intake of foods that do not contain sufficient quantities of available nutrient (e.g., overprocessed, overcooked, or stored improperly)</li> <li>• Food- and nutrition-related knowledge deficit (e.g., lack of information, incorrect information or noncompliance with intake of needed nutrient)</li> <li>• Medications affecting absorption or metabolism of needed nutrient</li> </ul>



		<ul style="list-style-type: none"> <li>• Athletes or active individuals engaged in intense physical activity</li> <li>• Conditions associated with a diagnosis or treatment, e.g., intestinal resection, Crohn's disease, HIV/AIDS, burns, pre-term birth, malnutrition</li> </ul>
	<b>Etiology (Cause/Contributing Factors)</b>	<b>Signs and Symptoms (Defining characteristics)</b>
<p style="text-align: center;"><b>NC-3.1 Underweight</b> “Low body weight compared to established reference standards or recommendations”</p>	<ul style="list-style-type: none"> <li>• Disordered eating pattern</li> <li>• Excessive physical activity</li> <li>• Harmful beliefs/attitudes about food, nutrition and nutrition related topics</li> <li>• Inadequate energy intake</li> <li>• Increased energy needs</li> <li>• Lack of or limited access to food</li> </ul>	<ul style="list-style-type: none"> <li>• Decreased skinfold thickness and MAM circum.</li> <li>• BMI &lt;18.5 (adults)</li> <li>• BMI for older adults (older than 65 years) &lt;23</li> <li>• Decreased muscle mass, muscle wasting (gluteal and temporal)</li> </ul> <p>Reports or observations of</p> <ul style="list-style-type: none"> <li>• Estimated intake of food less than estimated or measured needs</li> <li>• Limited supply of food in home</li> <li>• Dieting, food faddism</li> <li>• Refusal to eat</li> <li>• Physical activity more than recommended amount</li> <li>• Medications that affect appetite, e.g. stimulants for ADHD</li> <li>• Malnutrition, illness or physical disability</li> <li>• Mental illness, dementia, confusion</li> <li>• Athlete, dancer, gymnast, Vitamin/Mineral deficiency</li> </ul>
<p style="text-align: center;"><b>NC-3.2 Involuntary Weight Loss</b> “Decrease in body weight that is not planned or desired”</p>	<ul style="list-style-type: none"> <li>• Physiological causes increasing nutrient needs, e.g., due to prolonged catabolic illness, trauma, malabsorption</li> <li>• Decreased ability to consume sufficient energy</li> <li>• Lack of or limited access to food, e.g., economic constraints, restricting food given to elderly and/or children</li> <li>• Cultural practices that affect ability to access food</li> <li>• Prolonged hospitalization</li> <li>• Psychological causes such as depression and disordered eating</li> <li>• Lack of self-feeding ability</li> </ul>	<ul style="list-style-type: none"> <li>• Weight loss of <math>\geq 5\%</math> within 30 days, <math>\geq 7.5\%</math> in 90 days or <math>\geq 10\%</math> in 180 days (adults)</li> <li>• Fever</li> <li>• Decreased senses, i.e., smell, taste, vision</li> <li>• Increased heart rate</li> <li>• Increased respiratory rate</li> <li>• Loss of subcutaneous fat and muscle stores</li> <li>• Change in way clothes fit</li> <li>• Changes in mental status or function (e.g., depression)</li> </ul> <p>Reports or observations of:</p> <ul style="list-style-type: none"> <li>• Normal or usual estimated intake in face of illness</li> <li>• Poor intake, change in eating habits, early satiety, skipped meals</li> <li>• Medications associated with weight loss, such as certain antidepressants</li> <li>• Conditions associated with a diagnosis or treatment, e.g., AIDS/HIV, burns, chronic obstructive pulmonary disease, dysphagia, hip/long bone fracture, infection, surgery, trauma, hyperthyroidism (pre- or untreated), some types of cancer or metastatic disease (specify), substance abuse</li> <li>• Cancer chemotherapy</li> </ul>

Nutrition Diagnostic Statement	Etiology (Cause/Contributing Factors)	Signs and Symptoms (Defining characteristics)
<p align="center"><b>NI-5.3</b></p> <p><b>Inadequate* Protein-Energy Intake</b></p> <p>“Inadequate intake of protein and/or energy compared to established reference standards or recommendations based on physiological needs of short or recent duration”</p>	<ul style="list-style-type: none"> <li>• Physiological causes increasing nutrient needs due to catabolic illness, malabsorption.</li> <li>• Decreased ability to consume sufficient protein and/or energy</li> <li>• Lack of or limited access to food, e.g., economic constraints, restricting food given or food selected.</li> <li>• Cultural or religious practices that affect ability to access food</li> <li>• Food-and nutrition-related knowledge deficit concerning appropriate amount and type of dietary fat and/or protein.</li> <li>• Psychological causes such as depression and disordered eating.</li> </ul>	<ul style="list-style-type: none"> <li>• Normal albumin (in setting of normal liver fxn despite decreased protein-energy intake)</li> <li>• Weight loss of 5-7% past 3 months, 5% in one month, 1-2% in 1 week in adults</li> <li>• Slow wound healing in pressure ulcer or surgical pt.</li> </ul> <p>Reports or observation of:</p> <ul style="list-style-type: none"> <li>• Estimated energy intake from diet &lt; estimated RMR or recomm levels</li> <li>• Restriction or omission of food groups such as dairy or meat groups (protein); bread or milk group foods (energy)</li> <li>• Recent avoidance and/or lack of interest in food</li> <li>• Lack of ability to prepare meals.</li> <li>• Excessive consumption of alcohol or other drugs that reduce hunger.</li> <li>• Hunger in the face of inadequate access to food supply.</li> <li>• Conditions associated with a diagnosis or treatment of mild-prot energy malnutrition, recent illness, e.g., pulmonary or cardiac failure, flu, infection, surgery.</li> <li>• Nutrient malabsorption (eg, bariatric surgery, diarrhea, steatorrhea)</li> <li>• Lack of funds for purchase of appropriate foods</li> </ul>
<p align="center"><b>NI-2.1</b></p> <p><b>Inadequate* oral intake</b></p> <p>“Oral food/beverage intake 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, upon initiation of feeding or during combined EN/PN therapy”</p> <p>*alternate term for “inadequate” is the word “suboptimal.”</p>	<ul style="list-style-type: none"> <li>• Physiologic causes increasing nutrient needs d/t prolonged catabolic illness</li> <li>• Decreased ability to consume sufficient energy e.g. increased nutrient needs d/t prolonged catabolic illness</li> <li>• Lack of or limited access to food, e.g., economic constraints, restricting food given to elderly and/or children</li> <li>• Limited food acceptance d/t physiological or behavioral issues, aversion or harmful beliefs/attitude</li> <li>• Cultural practices that affect ability to access food.</li> <li>• Food and Nutrition Related Knowledge deficit concerning appropriate oral food/beverage intake</li> <li>• Psychological causes such as depression or disordered eating</li> </ul>	<ul style="list-style-type: none"> <li>• Weight loss</li> <li>• Dry skin, mucous membranes, poor skin turgor</li> <li>• Anorexia, nausea, or vomiting</li> <li>• Changes in appetite/taste</li> <li>• Clinical evidence of vitamin/mineral deficiency</li> </ul> <p>Report or observation of:</p> <ul style="list-style-type: none"> <li>• Estimates of insufficient intake of energy or high-quality protein from diet when compared to requirements</li> <li>• Economic constraints that limit food availability</li> <li>• Excessive consumption of alcohol or other drugs that reduce hunger</li> <li>• Medications that cause anorexia</li> <li>• Limited food/beverage intake inconsistent with nutrient reference standards for type, variety, diet quality</li> <li>• Inappropriate reliance on foods, food groups, supplement, or nutrition support</li> <li>• Conditions associated with a diagnosis or treatment of catabolic illness such as AIDS, TB, anorexia nervosa, sepsis and/or infection from recent surgery, depression, acute or chronic pain</li> <li>• Protein and/or nutrient malabsorption</li> </ul>

Nutrition Diagnostic Statement	Etiology (Cause/Contributing Factors)	Signs and Symptoms (Defining characteristics)
<p align="center"><b>NI-1.4</b></p> <p><b>Inadequate* energy intake</b>  “Energy intake that is less than energy expenditure, established reference standards, or recommendations based on physiological needs.  Exception: when the goal is weight loss or during end-of-life care.”</p> <p>*alternate term for “inadequate” is the word “suboptimal.”</p>	<ul style="list-style-type: none"> <li>• Pathologic or physiological causes that result in increased energy requirements e.g., increased nutrient needs due to prolonged catabolic illness</li> <li>• Decreased ability to consume sufficient energy</li> <li>• Lack of access to food or artificial nutrition, e.g., economic constraints, restricting food given to elderly and/or children</li> <li>• Cultural practices that affect ability to access food</li> <li>• Food- and nutrition-related knowledge deficit concerning energy intake</li> <li>• Psychological causes such as depression or disordered eating</li> </ul>	<ul style="list-style-type: none"> <li>• Failure to gain or maintain appropriate weight</li> <li>• Poor dentition</li> </ul> <p>Reports or observations of:</p> <ul style="list-style-type: none"> <li>• Estimated energy intake from diet less than needs based on estimated or measured resting metabolic rate</li> <li>• Restriction or omission of energy-dense foods from diet</li> <li>• Food avoidance and/or lack of interest in food</li> <li>• Inability to independently consume foods/fluids (diminished joint mobility of wrist, hand, or digits)</li> <li>• Estimated Parenteral or enteral nutrition insufficient to meet needs based on estimated or measured resting metabolic rate</li> <li>• Excessive consumption of alcohol or other drugs that reduce hunger</li> <li>• Medications that affect appetite</li> <li>• Conditions associated with diagnosis or treatment, e.g., mental illness, eating disorders, dementia, alcoholism, substance abuse, and acute or chronic pain management</li> </ul>
<p align="center"><b>NI-2.3</b></p> <p><b>Inadequate* Enteral Nutrition Infusion</b>  “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, upon initiation of feeding or during acute stressed state (surgery, organ failure)”</p> <p>*alternate term for “inadequate” is the word “suboptimal.”</p>	<ul style="list-style-type: none"> <li>• Altered absorption or metabolism of nutrients, e.g., medications</li> <li>• Food and Nutrition-related knowledge deficit concerning appropriate formula/formulation given for EN/PN.</li> <li>• Lack of, compromised, or incorrect access for delivering EN/TPN</li> <li>• Physiological causes increasing nutrient needs d/t accelerated growth, wound healing, chronic infection, multiple fractures</li> <li>• Intolerance to EN/TPN</li> <li>• Infusion volume not reached or schedule for infusion interrupted</li> </ul>	<ul style="list-style-type: none"> <li>• Metabolic cart/indirect calorimetry measurement, e.g., respiratory quotient &lt; 0.7 <ul style="list-style-type: none"> <li>○ Vitamin/mineral abnormalities: <ul style="list-style-type: none"> <li>○ Calcium &lt; 9.2 mg/dL (2.3 mmol/L)</li> <li>○ Vitamin K—abnormal international normalized ratio (INR)</li> <li>○ Copper &lt; 70 µg/dL (11 µmol/L)</li> <li>○ Zinc &lt; 78 µg/dL (12 µmol/L)</li> <li>○ Iron &lt; 50 µg/dL(nmol/L); iron-binding capacity &lt; 250 µg/dL (44.8 µmol/L)</li> </ul> </li> </ul> </li> <li>• Lack of planned weight gain</li> <li>• Unintentional weight loss of ≥5% in 1 month or ≥10% in 6 months</li> <li>• Underweight (BMI&lt;18.5)</li> <li>• Clinical evidence of vit/min deficiency</li> <li>• Evidence of dehydration eg, dry mucous membranes, poor skin turgor</li> <li>• Loss of skin integrity, delayed wound healing, pressure ulcers</li> <li>• Loss of muscle mass and/or subcutaneous fat</li> <li>• Nausea, vomiting, diarrhea</li> </ul> <p>Report or observation of:</p> <ul style="list-style-type: none"> <li>• Inadequate EN/PN volume compared to estimated/measured needs</li> <li>• Feeding tube or venous access in wrong position or removed.</li> <li>• Altered capacity for desired levels of physical activity or exercise, easy fatigue with increased activity.</li> <li>• Conditions associated with a diagnosis or treatment of, e.g., intestinal resection, Crohn’s, HIV/AIDS, burns, malnutrition</li> <li>• Feeding tube or venous access in wrong position or removed</li> <li>• Altered capacity for desired levels of physical activity or exercise, easy fatigue with increased activity</li> </ul>

Nutrition Diagnostic Statement	Etiology (Cause/Contributing Factors)	Signs and Symptoms (Defining characteristics)
<p align="center"><b>NI-5.2</b></p> <p align="center"><b>Malnutrition</b></p> <p>“Inadequate intake of protein and/or energy over <b>prolonged</b> periods of time resulting in loss of fat stores and/or muscle wasting including starvation-related malnutrition, chronic disease-related malnutrition and acute disease or injury-related malnutrition.”</p>	<ul style="list-style-type: none"> <li>• Physiologic causes increasing nutrient needs due to prolonged catabolic illness acute or chronic or injury/trauma</li> <li>• Alteration in gastrointestinal tract structure and/or function.</li> <li>• Lack of or limited access to food – e.g., economic constraints, restricting food given to elderly and/or children</li> <li>• Cultural practices that affect the ability to access food</li> <li>• Food and nutrition-related knowledge deficit concerning amount of energy and amount and type of dietary protein</li> <li>• Psychological causes such as depression or eating disorders</li> </ul>	<ul style="list-style-type: none"> <li>• Malnutrition can occur at any weight/BMI</li> <li>• BMI&lt;18.5 indicates underweight; BMI for older adults (older than 65 years) &lt;23.</li> <li>• Failure to thrive, e.g. failure to attain desirable growth rates.</li> <li>•, triceps, fat overlying the ribs and/or muscle wasting, e.g., wasting of the temples (temporalis muscle), clavicles (pectoralis &amp; deltoids), Weight loss, adults, of &gt;20% in one year, &gt;10% in 6 months, 7.5% in 3 months, &gt;5% in one month, 1-2% in 1 week</li> <li>• Underweight with muscle wasting</li> <li>• Loss of subcutaneous fat, e.g., orbital shoulders (deltoids), interosseous muscles, scapula (latissimus dorsi, trapezius, deltoids), thigh (quadriceps) and calf (gastrocnemius) triceps, fat overlying the ribs and/or muscle wasting, e.g., wasting of the temples (temporalis muscle), clavicles (pectoralis &amp; deltoids),</li> <li>•</li> <li>• Localized or generalized fluid accumulation</li> </ul> <p>Reports or observations of:</p> <ul style="list-style-type: none"> <li>• Estimated energy intake from diet less than estimated or measured RMR</li> <li>• Unable or unwilling to eat sufficient energy/protein to maintain a healthy weight</li> <li>• Food avoidance and/or lack of interest in food.</li> <li>• Excessive consumption of alcohol or other drugs that reduce appetite.</li> <li>• Change in functional indicators, e.g., grip strength or other measures of physical activity and/or strength</li> </ul> <p>Client hx:</p> <ul style="list-style-type: none"> <li>• Anorexia nervosa, benign esophageal stricture, and anything that results in limited access to food (associated with starvation-related malnutrition)</li> <li>• Organ failure, malignancies, rheumatoid diseases, gastrointestinal diseases, sarcopenic obesity, malabsorptive syndromes, and other etiologies including but not limited to diabetes, congestive heart failure, and chronic obstructive pulmonary disease (associated with chronic disease-related malnutrition)</li> <li>• Major infections such as; sepsis, pneumonia, peritonitis, and wound infections, major burns, trauma, closed head injury, acute lung injury, adult respiratory distress syndrome, and selected major surgeries (associated with acute disease or injury-related malnutrition)</li> <li>• Existing medical diagnosis of malnutrition including starvation-related malnutrition, chronic disease-related malnutrition and acute disease or injury-related malnutrition.</li> </ul> <p>* (use of albumin/prealbumin as measurement of malnutrition is questioned)</p>

		and being investigated by ADA evidence analysis)
<b>Nutrition Diagnostic Statement</b>	<b>Etiology (Cause/Contributing Factors)</b>	<b>Signs and Symptoms (Defining characteristics)</b>
<p><b>NC-1.4</b>  <b>Altered GI Function</b>  “Changes in digestion, absorption, or elimination”</p>	<ul style="list-style-type: none"> <li>• Alterations in GI anatomical structure and/or function</li> <li>• Changes in gastric motility, e.g., gastroparesis</li> <li>• Compromised exocrine function of related GI organs, e.g., pancreas, liver.</li> <li>• Decreased functional length of the GI tract such as short bowel syndrome</li> </ul>	<ul style="list-style-type: none"> <li>• Abnormal digestive enzyme and fecal fat studies</li> <li>• Abnormal H+ breath test, d-xylose test, stool culture, &amp; gastric emptying and/or small bowel transit time</li> <li>• Endoscopic or colonoscopic examination and results, biopsy results</li> <li>• Abdominal distention</li> <li>• Increased (or sometimes decreased) bowel sounds</li> <li>• Wasting due to malnutrition in severe cases</li> <li>• Abnormal anemia profile</li> <li>• Abnormal vitamin, mineral, fatty acid, trace element, and PTH results</li> <li>• Abnormal bone mineral density tests</li> <li>• Weight loss of <math>\geq 5\%</math> in one month, <math>\geq 10\%</math> in six months</li> </ul> <p>Observation or reports of:</p> <ul style="list-style-type: none"> <li>• Avoidance or limitation of estimated total intake or intake of specific foods/food groups d/t GI sx (bloating, cramping, pain, diarrhea, steatorrhea, greasy, floating, foul-smelling stools) especially following ingestion of food</li> <li>• Condition associated with a dx or tx e.g, malabsorption, maldigestion, steatorrhea, obstruction, constipation, diverticulitis, Crohn’s disease, IBD, cystic fibrosis, celiac disease, cancers, IBS, infection, dumping syndrome</li> <li>• Surgical procedures, e.g., esophagectomy, dilatation, fundoplication, gastrectomy, vagotomy, gastric bypass, bowel resections</li> </ul>
<p><b>NC-2.1</b>  <b>Impaired Nutrient Utilization</b>  “Changes in ability to metabolize nutrients and bioactive substances”</p>	<ul style="list-style-type: none"> <li>• Compromised endocrine function of related GI organs, e.g., pancreas, liver, pituitary, parathyroid</li> <li>• Metabolic disorders, including inborn errors of metabolism</li> <li>• Medications that affect nutrient metabolism</li> <li>• Alcohol or drug addiction</li> </ul>	<ul style="list-style-type: none"> <li>• Abnormal tests for inborn errors of metabolism</li> <li>• Abnormal liver function tests</li> <li>• Abnormal anemia profile</li> <li>• Abnormal pituitary hormones</li> <li>• Hypoglycemia, hyperglycemia</li> <li>• Abnormal bone mineral density tests, PTH</li> <li>• Weight loss of <math>\geq 5\%</math> in one month, <math>\geq 10\%</math> in six months</li> <li>• Evidence of vitamin and/or mineral deficiency, e.g., glossitis, cheilosis, mouth lesions</li> <li>• Thin, wasted appearance</li> </ul> <p>Reports or observations of:</p> <ul style="list-style-type: none"> <li>• Avoidance or limitation of intake of specific foods/food groups due to physical symptoms</li> <li>• Conditions associated with a diagnosis or treatment, e.g., cystic fibrosis, celiac disease, Crohn’s disease, infection, radiation therapy, inborn errors</li> </ul>

		of metabolism, alcohol or drug abuse, endocrine disorders, pituitary disorders, renal failure, liver failure
<b>Nutrition Diagnostic Statement</b>	<b>Etiology (Cause/Contributing Factors)</b>	<b>Signs and Symptoms (Defining characteristics)</b>
<p><b>NC-1.1</b>  <b>Swallowing Difficulty</b>          “Impaired or difficult movement of food and liquid within the oral cavity to the stomach”</p>	<ul style="list-style-type: none"> <li>• Mechanical causes, e.g., inflammation, surgery, stricture; or oral, pharyngeal and esophageal tumors; prior mechanical ventilation</li> <li>• Motor causes, e.g., neurological or muscular disorders, such as cerebral palsy, stroke, multiple sclerosis, scleroderma, ALS, inflammation, surgery, stricture or oral, pharyngeal and esophageal tumors, or mechanical ventilation.</li> </ul>	<ul style="list-style-type: none"> <li>• Radiologic findings, e.g., abnormal swallow study</li> <li>• Evidence of dehydration ,e.g., dry mucous membrane, poor skin turgor</li> <li>• Non-normal findings in cranial nerves and (CN VII) muscles of facial expression, (Nerve IX) gag reflex, swallow (Nerve X) and tongue range of motions (nerve XII), cough reflex, drooling, facial weakness and ability to perform and wet and dry swallow</li> <li>• Coughing, choking, prolonged chewing, pouching of food, regurgitation, facial expression changes during eating, drooling, noisy wet upper airway sounds, feeling of “food getting stuck,” pain while swallowing,.</li> <li>• Prolonged feeding time</li> <li>• Decreased estimated food intake</li> <li>• Avoidance of foods</li> <li>• Mealtime resistance</li> <li>• Conditions associated with a dx or tx of dysphagia, achalasia,</li> <li>• Repeated upper respiratory infections or pna</li> </ul>
<p><b>NC-1.2</b>  <b>Biting/Chewing (Masticatory) Difficultly</b>          "Impaired ability to bite or chew food in preparation for swallowing."</p>	<ul style="list-style-type: none"> <li>• Craniofacial malformations</li> <li>• Oral surgery</li> <li>• Neuromuscular dysfunction</li> <li>• Partial or complete edentulism</li> <li>• Soft tissue disease (primary or oral manifestations of a systemic disease</li> <li>• Xerostomia</li> </ul>	<ul style="list-style-type: none"> <li>• Partial or complete edentulism</li> <li>• Alteration in cranial nerve function (V, VII, IX, X, XII)</li> <li>• Dry mouth</li> <li>• Oral lesions interfering with eating ability</li> <li>• Impaired tongue movement</li> <li>• Ill-fitting dentures or broken dentures</li> <li>Reports or observations of</li> <li>• Decreased estimated food intake</li> <li>• Alterations in estimated food intake from usual</li> <li>• Decreased estimated intake or avoidance of food difficult to form into a bolus e.g., nuts, whole pieces of meat, poultry, fish, fruits, vegetables</li> <li>• Avoidance of foods of age-appropriate texture</li> <li>• Spitting food out or prolonged feeding time</li> <li>• 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, penphigus vulgaris, HIV, diabetes)</li> <li>• Recent major oral surgery</li> </ul>

		<ul style="list-style-type: none"> <li>• Wired jaw</li> <li>• Chemotherapy with oral side effects</li> <li>• Radiation therapy to oral cavity</li> </ul>
Nutrition Diagnostic Statement	Etiology (Cause/Contributing Factors)	Signs and Symptoms (Defining characteristics)
<p style="text-align: center;"><b>NC-2.3</b></p> <p><b>Food-Medication Interaction</b>  "Undesirable/harmful interaction(s) between food and over-the-counter (OTC) medications, prescribed medications, herbals, botanicals, and/or dietary supplements that diminishes, enhances, or alters the effect of nutrients and/or medications"</p>	<ul style="list-style-type: none"> <li>• Combined ingestion or administration of medication and food that results in undesirable/harmful interaction.</li> </ul>	<ul style="list-style-type: none"> <li>• Alterations of biochemical tests based on medication affect and patient condition</li> <li>• Alterations in anthropometric measurements based on medication effect and patient condition such as weight gain and steroids</li> <li>• Changes in appetite or taste</li> </ul> <p>Reports or observations of:</p> <ul style="list-style-type: none"> <li>• Intake that is problematic or inconsistent with OTC, prescribed drugs, herbals, botanicals, and dietary supplements such as: <ul style="list-style-type: none"> <li>-fish oils, and prolonged bleeding</li> <li>-coumadin, vitamin K-rich foods</li> <li>-high fat diet while on cholesterol-lowering meds</li> <li>-iron supplements, constipation and low-fiber diet</li> </ul> </li> <li>• Intake that does not support replacement or mitigation of OTC, prescribed drugs, herbals, botanicals, and dietary supplements effects such as potassium-wasting diuretics</li> <li>• Multiple durgs (OTC, prescribed drugs, herbals, botanicals, and dietary supplements) that are known to have food-medication interaction</li> <li>• Medications that require nutrient supplementation that cannot be accomplished via food intake such as isoniazid and vitamin B6</li> </ul>
<p style="text-align: center;"><b>NI-4.3</b></p> <p><b>Excessive Alcohol Intake</b>  "Intake more than the suggested limits of alcohol."</p>	<ul style="list-style-type: none"> <li>• Harmful beliefs/attitudes about food, nutrition, or nutrition-related topics</li> <li>• Food- and nutrition-related knowledge deficit concerning appropriate alcohol intake</li> <li>• Lack of value for behavior change, competing values</li> <li>• Alcohol addiction</li> </ul>	<ul style="list-style-type: none"> <li>• Elevated aspartate aminotransferase (AST), gamma-glutamyl transferase (GGT), carbohydrate-deficient transferrin, mean corpuscular volume, blood alcohol levels</li> </ul> <p>Reports or observation of:</p> <ul style="list-style-type: none"> <li>• Intake of &gt;2 drinks/day (men)</li> <li>• Intake of &gt;1 drink/day (women)</li> <li>• Binge drinking</li> <li>• Consumption of any alcohol when contraindicated</li> </ul> <p>*1 drink= 5 oz wine, 12 oz beer, 1.5 oz distilled alcohol</p> <p>Client history:</p> <ul style="list-style-type: none"> <li>• Conditions associated with a diagnosis or treatment, e.g., severe hypertriglyceridemia, elevated blood pressure, depression, liver disease, pancreatitis</li> <li>• New medical diagnosis or change in existing diagnosis or condition</li> </ul>

		<ul style="list-style-type: none"> <li>History of estimated alcohol intake in excess of recommended</li> </ul>
Nutrition Diagnostic Statement	Etiology (Cause/Contributing Factors)	Signs and Symptoms (Defining characteristics)
<p><b>NI-3.2</b> <b>Excessive Fluid Intake</b> "Higher intake of fluid compared to established reference standards or recommendations based on physiological needs."</p>	<ul style="list-style-type: none"> <li>Physiological causes, e.g., kidney, liver or cardiac, endocrine, neurological, and/or pulmonary dysfunction; diminished water and sodium losses due to changes in exercise or climate, syndrome of inappropriate antidiuretic hormone (SIADH)</li> <li>Food- and nutrition-related knowledge deficit concerning appropriate fluid intake</li> <li>Psychological causes, such as depression or disordered eating</li> </ul>	<ul style="list-style-type: none"> <li>Lowered plasma osmolarity (270-280 mOsm/kg), only if positive fluid balance is in excess of positive sodium balance</li> <li>Decreased serum sodium in SIADH</li> <li>Weight gain</li> <li>Edema in the skin of the legs, sacral area, or diffusely; weeping of fluids from lower legs</li> <li>Ascites</li> <li>Pulmonary edema as evidenced by shortness of breath; orthopnea; crackles</li> <li>Nausea, vomiting, anorexia, headache, muscle spasms, convulsions</li> <li>Shortness of breath or dyspnea with exertion or at rest</li> <li>Providing medications in large amounts of fluid</li> <li>Use of drugs that impair fluid excretion</li> </ul> <p>Reports or observations of:</p> <ul style="list-style-type: none"> <li>Estimated intake of fluid more than requirements (e.g., per body surface area for pediatrics)</li> <li>Estimated salt intake in excess of recommendations</li> </ul> <p>Client history:</p> <ul style="list-style-type: none"> <li>Conditions associated with a diagnosis or treatment, e.g., end-stage renal disease, nephrotic syndrome, heart failure, or liver disease</li> <li>Coma (SIADH)</li> </ul>
<p><b>NI-5.7.2</b> <b>Excessive Protein Intake</b> "Intake more than the recommended level of protein compared to established reference standards or recommendations based on physiological needs."</p>	<ul style="list-style-type: none"> <li>Liver dysfunction</li> <li>Renal dysfunction</li> <li>Harmful beliefs/attitudes about food, nutrition, and nutrition-related topics</li> <li>Lack of, or limited access to specialized protein products</li> <li>Metabolic abnormality</li> <li>Food faddism</li> </ul>	<ul style="list-style-type: none"> <li>Altered lab values, e.g. ↑ BUN, ↓ glomerular filtration rate (altered renal status)</li> <li>Growth stunting or failure based on National Center for Health Statistics growth charts (metabolic disorders)</li> </ul> <p>Reports or observation of:</p> <ul style="list-style-type: none"> <li>Estimated total protein intake higher than recommended, e.g., early renal disease, advanced liver disease with confusion</li> <li>Inappropriate supplementation</li> <li>Condition associated with a diagnosis or treatment, e.g., early renal disease or advanced liver disease with confusion</li> </ul>
<p><b>NI-5.10.2</b> <b>Excessive Mineral Intake</b> "Higher intake of one or more minerals compared to established reference standards or"</p>	<ul style="list-style-type: none"> <li>Food- and nutrition-related knowledge deficit concerning food and supplemental sources of minerals</li> <li>Harmful beliefs/attitudes about food, nutrition, and nutrition-related topics</li> <li>Food faddism</li> </ul>	<ul style="list-style-type: none"> <li>Changes in appropriate laboratory values such as:</li> <li>↑ TSH (iodine supplementation)</li> <li>↓ HDL (zinc supplementation)</li> <li>↑ Serum ferritin and transferrin saturation (iron overload)</li> <li>Hyperphosphatemia</li> <li>Hypermagnesemia</li> </ul>



<p>recommended based on physiological needs."</p>	<ul style="list-style-type: none"> <li>• Accidental over supplementation</li> <li>• Overconsumption of a limited variety of foods</li> <li>• Lack of knowledge about management of diagnosed genetic disorder altering mineral homeostasis [hemochromatosis (iron), Wilson's disease (copper)]</li> <li>• Lack of knowledge about management of diagnosed disease state requiring mineral restriction [cholestatic liver disease (copper and manganese), renal insufficiency (phosphorus, magnesium, potassium)]</li> </ul>	<ul style="list-style-type: none"> <li>• Copper deficiency anemia (zinc)</li> <li>• Hair and nail changes (selenium)</li> <li>• Anorexia (zinc supplementation)</li> <li>• GI disturbances (iron, magnesium, copper, zinc, selenium)</li> </ul> <p>Report or observation of:</p> <ul style="list-style-type: none"> <li>• Estimated intake of foods, or supplements containing high amounts of mineral compared to DRI's</li> <li>• Liver damage (copper, iron), enamel or skeletal fluorosis (fluoride)</li> </ul>
<p><b>NC 2.2</b> <b>Altered Nutrition-related Laboratory Values (specify which one/s)</b> "Changes due to body composition, medications, body system changes or genetics, or changes in ability to eliminate byproducts of digestive and metabolic processes."  <b>Note:</b> Only use this diagnosis if an intake diagnosis (NI series) is not found that matches the S&amp;S appropriately.</p>	<ul style="list-style-type: none"> <li>• Kidney, liver, cardiac, endocrine, neurologic, and/or pulmonary dysfunction</li> <li>• Other organ dysfunction that leads to biochemical changes</li> </ul>	<ul style="list-style-type: none"> <li>• Increased AST, ALT, T. bili, serum ammonia (liver disorders)</li> <li>• Abnormal BUN, Cr, K, phosphorus, glomerular filtration rate (GFR) (kidney disorders)</li> <li>• Altered pO<sub>2</sub> and pCO<sub>2</sub> (pulmonary disorders)</li> <li>• Abnormal serum lipids</li> <li>• Abnormal plasma glucose and/or HgbA1c levels</li> <li>• Inadequate blood glucose control</li> <li>• Other findings of acute or chronic disorders that are abnormal and of nutritional origin or consequence</li> <li>• Rapid weight changes</li> <li>• Other anthropometric measures that are altered</li> <li>• Jaundice, edema, ascites, pruritis (liver)</li> <li>• Edema, SOB (cardiac)</li> <li>• Blue nail bed, clubbing (pulmonary)</li> <li>• Anorexia, nausea, vomiting</li> <li>• Reports or observation of <ul style="list-style-type: none"> <li>• Estimated intake of foods high in or overall excess intake of protein, potassium, phosphorus, sodium, fluid</li> <li>• Est intake of micronutrients less than recommendations</li> <li>• Food- and nutrition-related knowledge deficit e.g. lack of information, incorrect information or noncompliance with modified diet</li> </ul> </li> <li>• Conditions associated with a dx or treatment e.g renal or liver ds, alcoholism, cardiopulmonary disorders, diabetes</li> </ul>
<p><b>NI-1.6</b> <b>Predicted Suboptimal Energy Intake</b>  "Future energy intake that is anticipated, based on observation, experience, or</p>	<ul style="list-style-type: none"> <li>• Scheduled or planned procedure or medical therapy that is predicted to increase energy requirements</li> <li>• Scheduled or planned medical therapy or medication that is predicted to decrease ability to consume sufficient energy</li> <li>• Anticipated change in physical demands of work or leisure activities (e.g., job change, training for</li> </ul>	<ul style="list-style-type: none"> <li>• Population-based anthropometric data indicating suboptimal energy intake</li> </ul> <p>Reports or observations of:</p> <ul style="list-style-type: none"> <li>• Estimated energy intake from all sources less than projected needs</li> <li>• History of marginal or suboptimal energy intake</li> <li>• Projected change in ability to shop, prepare, and/or consume sufficient energy</li> <li>• Medications that are anticipated to decrease appetite or affect ability to</li> </ul>

<p>scientific reason, to be less than estimated energy expenditure, established reference standards, or recommendations based on physiological needs."</p> <p>Note: May not be an appropriate nutrition diagnosis during weight loss. Use Inadequate Energy Intake (NI-1.4) when current energy intake is less than energy expenditure.</p>	<p>competitive sports)</p> <ul style="list-style-type: none"> <li>Stressful life event or living situation (e.g., death in family, divorce, loss of home) that, in the past, resulted in suboptimal energy intake</li> </ul>	<p>consume sufficient energy</p> <ul style="list-style-type: none"> <li>No prior knowledge of need for food- and nutrition-related recommendations</li> <li>Projected increase in level of physical activity</li> <li>Client hx:</li> <li>Scheduled procedure or therapy known to increase energy need or change ability to consume sufficient energy</li> <li>History or presence of a condition for which research shows an increased incidence of increased energy expenditure</li> <li>History or presence of a condition for which research shows an increased incidence of suboptimal energy intake</li> <li>Client report of recent or anticipated life stress or change</li> </ul>
<p><b>NI-5.7.3 Inappropriate Intake of Proteins or Amino Acids (specify)</b></p> <p>"Intake of a amount of a specific type of protein or amino acid compared to established reference standards or recommendations based on physiological needs."</p>	<ul style="list-style-type: none"> <li>Liver dysfunction</li> <li>Renal dysfunction</li> <li>Harmful beliefs/attitudes about food, nutrition, and nutrition-related topics</li> <li>Misused specialized protein products</li> <li>Metabolic abnormality</li> <li>Food faddism</li> <li>Inborn errors of metabolism</li> <li><b>Celiac disease</b>, dermatitis herpetiformis</li> <li>Cultural or religious practices that affect the ability to regulate types of protein or amino acids consumed</li> <li>Food- and nutrition-related knowledge deficit concerning an appropriate amount of a specific types of proteins or amino acids</li> <li>Food and nutrition compliance limitations, e.g., lack of willingness or failure to modify protein or amino acid intake in response to recommendations from a dietitian, physician, or caregiver</li> </ul>	<ul style="list-style-type: none"> <li>Altered laboratory values, e.g., ↑ BUN, ↓ glomerular filtration rate (altered renal status)</li> <li>Elevated specific amino acids (inborn errors of metabolism)</li> <li>Elevated homocysteine or ammonia</li> <li>Positive autoantibody levels (Anti-tTG antibodies, EmA IgA Tissue Transglutaminase (tTG) and IgA Endomysial Antibodies (EMA))</li> <li>Positive small bowel biopsy for celiac disease</li> <li>Weight loss, inability to gain weight, delayed growth</li> <li>Physical or neurological changes (inborn errors of metabolism)</li> <li>Diarrhea in response to certain types of carbohydrates</li> <li>Abdominal pain, distention, constipation, reflux, GERD</li> </ul> <p>Reports or observations of:</p> <ul style="list-style-type: none"> <li>Estimated protein or amino acid intake higher than recommended, e.g., early renal disease, advanced liver disease, inborn error of metabolism, celiac disease</li> <li>Estimated intake of certain types of proteins or amino acids higher than recommended for prescribed parenteral and enteral nutrition therapy</li> <li>Inappropriate amino acid or protein supplementation, as for athletes</li> <li>Estimated amino acid intake higher than recommended, e.g., excess phenylalanine intake</li> <li>Limited knowledge of protein or amino acid composition of foods or of protein or amino acid metabolism</li> <li>Chronic use of medications containing proteins not recommended</li> </ul> <p>Client history:</p> <ul style="list-style-type: none"> <li>Conditions associated with a diagnosis or treatment of illness that requires EN/PN therapy, celiac disease, dermatitis herpetiformis, allergies, inborn errors of metabolism</li> <li>History of inborn error of metabolism</li> </ul>

		<ul style="list-style-type: none"><li>• Uremia, azotemia (renal patients)</li></ul>
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