Most Common – Inpatient

	Most Common — Inpatient revised 6/		revised 6/2010
Nutrition Diagnostics Statement	Etiology (Cause/Contributing Factors)	Signs and Symptoms (Defining characteristics)	
"Inadequate intake of protein and/or energy over prolonged periods of time resulting in loss of fat stores and/or muscle wasting"	<ul> <li>Physiologic causes increasing nutrient needs due to prolonged catabolic illness</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- e.g., depression or eating disorders</li> </ul>	* (use of albumin/prealbumin as measurement of malnutrition is being investigated by ADA evidence analysis)  •BMI<18.5; BMI for older adults (older than 65 years) <23.  •Failure to thrive, e.g. failure to attain desirable growth rates.  •Weight loss, adults, of >10% in 6 months, >5% in one month  •Underweight with muscle wasting  •Uncomplicated malnutrition:  * Thin, wasted appearance, severe muscle wasting; minimal body dry easily pluckable hair; dry, thin skin; obvious bony prominence wasting; lowered body temperature, blood pressure, heart rate; ch nails consistent with insufficient protein intake.  •Disease trauma related malnutrition:  *Thin to normal appearance, with peripheral edema, ascites, or an of the lower extremities; some muscle wasting with retention of b dyspigmentation of hair (flag sign) and skin.  •Delayed wound healing  •Reports or observations of:  *Estimated energy intake from diet less than estimated or measure  *Estimated intake of high quality protein less than estimated requirements of avoidance and/or lack of interest in food.  *Excessive consumption of alcohol or other drugs that reduce appearance or acute disease or trauma, geographic location and social status associated with altered nutrient intake or indigenous phesical services.	fat; sparse, thin es; temporal nanges in hair or nasarca; edema oody fat; ed RMR irements. petite. ioeconomic nenomenon.
Inadequate oral food /beverage intake  "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, upon initiation of feeding or during combined En/PN therapy"	<ul> <li>Physiologic causes increasing 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>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</li> </ul>	<ul> <li>Weight loss</li> <li>Dry skin, mucous membranes, poor skin turgor</li> <li>Changes in appetite/taste</li> <li>Estimates of insufficient intake of energy or high-quality protein when compared to requirements</li> <li>Economic constraints that limit food availability</li> <li>Excessive consumption of alcohol or other drugs that reduce hur</li> <li>Medications that cause anorexia</li> <li>Conditions associated with a diagnosis or treatment of catabolic in AIDS, TB, anorexia nervosa, sepsis or infection from recent sepression, acute or chronic pain</li> </ul>	nger illness such as
daring comonica Lint is dictapy	Psychological causes such as depression or	depression, acute or chronic pain	

Protein and/or nutrient malabsorption

disordered eating

## Inadequate Intake from enteral/parenteral nutrition

"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)"

- •Altered absorption or metabolism of nutrients, e.g., medications
- Food and Nutrition-related knowledge deficit concerning appropriate formula/formulation given for EN/PN.
- · Lack of, compromised, or incorrect access

delivering EN/TPN

- Physiological causes increasing nutrient needs d/t accelerated growth, wound healing, chronic infection, multiple fractures
- Intolerance to EN/PN
- Infusion volume not reached or schedule for infusion interrupted

Vitamin/mineral abnormalities:

Calcium<9.2 mg/dL

Vit K- abnormal INR

Copper <87 mcg/dL (11mcmol/L)

Iron (mcg/dL:, iron-binding capacity <250 mcg/dL

- Lack of planned weight gain
- Unintentional weight loss of ≥5% in 1 month or ≥10% in 6 months
- Underweight (BMI<18.5)</li>
- Clinical evidence of vit/min deficiency (hair loss, bleeding gums, pale nail beds, neurologic changes)
- Evidence of dehydration (eg, dry mucous membranes, poor skin turgur)
- Loss of skin integrity or delayed wound healing or pressure ulces
- Loss of muscle mass and/or subcutaneous fat
- Nausea, vomiting, diarrhea
- Inadequate EN/PN volume compared to estimated/measured requirements
- Feeding tube or venous access in wrong position or removed.
- Altered capacity for desired levels of physical activity or exercise, easy fatigue with increased activity.
- Conditions associated with a diagnosis or treatment of, e.g., intestinal resection, Crohn's, HIV/AIDS, burns, malnutrition

#### Inadequate\* Protein-Energy Intake

"Inadequate intake of protein and/or energy compared to established reference standards or recommendations based on physiological needs of short or recent duration"

\*an approved alternate synonym for inadequate is "suboptimal"

- Physiological causes increasing nutrient needs due to catabolic illness. malabsorption.
- •Lack of or limited access to food, e.g., economic constraints, restricting food given or food selected.
- •Cultural practices that affect ability to access food.
- •Food-and nutrition-related knowledge deficit concerning appropriate amount and type of dietary fat and/or protein.
- •Psychological causes such as depression and disordered eating.

- Normal albumin (in setting of normal liver fxn)
- Weight loss of 5-7% past 3 months in adults
- Normal or slightly underweight
- •Slow wound healing in pressure ulcer or surgical pt.
- Estimated energy intake from diet < estimated RMR or recommended levels
- Restriction or omission of food groups such as dairy or meat groups (protein); bread or milk group foods (energy)
- Recent food avoidance and/or lack of interest in food
- · Lack of ability to prepare meals.
- Excessive consumption of alcohol or other drugs that reduce hunger.
- Hunger in the face of inadequate access to food supply.
- Conditions associated with a diagnosis or treatment of mild-prot energy malnutrition, recent illness, e.g., pulmonary or cardiac failure, flu, infection, surgery.
- Nutrient malabsorption (eg, bariatric surgery, diarrhea, steatorrhea)
- · Lack of funds for purchase of appropriate foods

Nutrition Diagnostic Statement	Etiology (Cause/Contributing Factors)	Signs and Symptoms (Defining characteristics)
*Involuntary Weight Loss "Decrease in body weight that is	Physiologic causes, e.g., increase nutrient needs due to prolonged catabolic illness,	<ul> <li>Wt loss of ≥5% w/in 30 days, ≥7.5% in 90 days &amp; ≥10% in 180 days (adults)</li> <li>Decreases senses, i.e., smell, taste, vision</li> </ul>

★ Involuntary Weight Loss
"Decrease in body weight that is
not planned or desired"

- trauma, malabsorption.
- · Lack of or limited access to food, e.g., economic constraints, cultural/religious practices, restricting food given to elderly and/or children
- Cultural practices that affect ability to access food.
- Prolonged hospitalization
- Psychological issues
- · Lack of self-feeding ability

- · Fever, increased HR, Increased respiratory rate, loss of subcutaneous fat and muscle stores
- Changes in way clothes fit
- Changes in mental status or function (eg depression).
- Normal or usual estimated intake in face of illness
- Poor intake, change in eating habits, early satiety, skipped meals.
- Medications associated with weight loss such as certain antidepressants
- · Conditions associated with diagnosis or treatment of, e.g., AIDS/HIV, burns, COPD, dysphagia, hip/bone fracture, infection, surgery, trauma, hyperthyroidism (pre- or untreated), some types of cancer or metastatic disease (specify), substance abuse.
- Cancer chemotherapy

#### Overweight/Obesity

"Increased adiposity compared to established reference standards or recommendations, ranging from overweight to obesity"

- •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

•BMI more than normative standard for age and sex:

Obesity Grade I 30-34.9 Overweight 25-29.9 Obesity Grade III 40+ Obesity Grade II 35-39.9

- Inability to maintain weight or regain weight
- · Waist circumference above normative standards for age and sex
- Increased skinfold thickness; Increased body adiposity
- Over consumption of high fat and/or calorie-dense food or beverage
- \*Large portions of food (portion size more than 2x recommended)
- •Estimated excessive energy intake
- 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
- Uncertainty regarding nutrition-related recommendations
- Inability to apply nutrition-related recommendations
- Unwillingness or disinterest in applying-nutrition-related rec's
- Inability to lose signif amount of excess wt thru conventional wt loss interven.
- Medication impacting RMR, e.g., glipizide, propanolol, midazolam
- Conditions associated w/ dx or tx, e.g., hypothyroidism, metabolic syndrome, eating disorder not otherwise specified, depression
- Physical disability or limitation
- · History of familial obesity or History of childhood obesity
- History of physical, sexual or emotional abuse

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Nutrition Diagnostic Statement	Etiology (Cause/Contributing Factors)	Signs and Symptoms (Defining characteristics)
Underweight "Low body weight compared to established reference standards or recommendations"	Disordered eating pattern  Excessive physical activity  Harmful beliefs/attitudes about food, nutrition and nutrition related topics  Inadequate energy intake  Increased energy needs  Lack of or limited access to food	Decreased skinfold thickness and MAM circum.  BMI <18.5 (adults); BMI for older adults (older than 65 years) <23  Decreased muscle mass, muscle wasting (gluteal and temporal) Reports or observations of  Estimated intake of food less than estimated or measured needs  Limited supply of food in home  Dieting, food faddism  Refusal to eat  Physical activity more than recommended amount  Medications that affect appetite, e.g. stimulants for ADHD  Malnutrition  Illness or physical disability  Mental illness, dementia, confusion  Athlete, dancer, gymnast  Vitamin/Mineral deficiency
Increased Nutrient Needs (Specify)  "Increased need for a specific nutrient compared to established reference standards or recommendations based upon physiological needs"	<ul> <li>Altered absorption or metabolism of nutrient, e.g., from meds</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> <li>Decreased cholesterol &lt; 160 mg/dl, albumin, prealbumin, C-reactive protein indicating increased stress and increased metabolic needs</li> <li>Electrolyte/mineral(eg K, Mg, PO4) abnormalities</li> <li>Urinary or fecal losses of specific or related nutrients (e.g., fecal fat, d-xylose)</li> <li>Vitamin and/or mineral deficiency</li> <li>Unintentional weight loss of ≥5% in 1 mo or ≥10% in 6 mos.</li> <li>Underweight (BMI &lt; 18.5)</li> <li>Clinical evidence of vit/min 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>Estimated intake of foods/supplements containing needed nutrient less than estimated requirements</li> <li>Intake of foods that lack sufficient quantities of available nutrient (e.g., overprocessed, overcooked, stored improperly)</li> <li>Food and nutrition related knowledge deficit (lack of info, incorrect info, noncompliance with recs)</li> <li>Medications affecting absorption or metabolism of needed nutrient</li> <li>Conditions associated with a diagnosis or treatment, e.g., intestinal resection, Crohn's disease, HIV/AIDS, burns, malnutrition</li> </ul>

# Decreased Nutrient Needs (specify)

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

- •Renal dysfunction
- •Liver dysfunction
- Altered cholesterol metabolism/regulation
- •Heart failure
- Food intolerances, e.g., irritable bowel syndrome
- Total Chol >200 mg/dL, LDL >100 mg, HDL <40 mg/dL, TG >150 mg/dL
- •Phosphorus >5.5 mg/dL (1.78 mmol/L)
- •GFR < 90 mL/min/1.73<sup>2</sup>
- •Elevated BUN, creatinine, potassium
- •Liver function tests indicating severe liver disease
- •Interdialytic weight gain greater than expected
- •Edema/fluid retention
- •Reports or observations of estimated intake higher than recommended for fat, phos, sodium, protein, fiber
- •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)
- Diagnosis of hypertension, confusion related to liver disease

### Altered Nutrition Related Laboratory Values (specify)

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

- Liver, kidney, cardiac, endocrine, neurologic and/or pulmonary dysfunction
- •Other organ dysfunction that leads to biochemical changes.
- Increased AST, ALT, T.bili, serum ammonia (liver disorders
- Abnormal BUN, Cr, K, P, GFR (kidney disorders)
- •Altered pO2 and pCO2 (pulmonary disorders)
- Abnormal serum lipids
- Abnormal plasma glucose and/or high HgbA1c
- Inadequate blood glucose control
- Other findings of acute or chronic disorders that ar abnormal and of nutritional origin or consequence.
- Rapid weight changes or Other anthropometric measures that are altered
- Jaundice, edema, ascites, pruritis (liver disorders)
- Edema, shortness of breath (cardiac disorders)
- \*Blue nail beds, clubbing (pulmonary disorders)
- Anorexia, nausea, vomiting
- Estimated intake of foods high in or overall excess intake of protein, K, Phos, Na. fluid
- •Estimated intake of micronutrients less than recommendations
- Food and nutrition-knowledge deficit, e.g., lack of/or incorrect information or non-compliance with modified diet.
- Conditions associated with a diagnosis or treatment, e.g., renal or liver disease, alcoholism, cardiopulmonary disorders, diabetes.

Nutrition Diagnostic/l	Etiology (Cause/Contributing Factors).	Signs and Symptoms (Defining characteristics)
Altered GI Function		Abnormal digestive enzyme and fecal fat studies
"Changes in ability to digest or absorb nutrients"	<ul> <li>Alterations in GI anatomical structure or function</li> <li>Changes in gastric motility, e.g., gastroparesis</li> <li>Compromised function of related GI organs, e.g., pancreas, liver.</li> <li>Decreased functional length of the GI tract, e.g., short bowel syndrome</li> </ul>	•Abnormal H+ breath test, d-xylose test, stool culture, & gastric emptying and/or small bowel transit time
		Endoscopic or colonoscopic examination and results, biopsy results     Abdominal distention
		•Increased (or sometimes decreased) bowel sounds
		•Wasting due to malnutrition in severe cases
		Anorexia, nausea, vomiting, diarrhea, steatorrhea, constipation, abdominal pain
<u>I</u>		Observation or reports of:
		• Avoidance or limitation of estimated total intake or intake of specific foods/food groups d/t GI sx (bloating, cramping, pain, diarrhea, steathorrea,(greasy, floating, foul-smelling stools) especially following ingestion of food
		Condition associated with a dx or tx e.g, malabsorption, maldigestion, steatorrhea, constipation, diverticulitis, Crohn's, IBD, cystic fibrosis, celiac disease, IBS, infection
		Surgical procedures, e.g., esophagectomy, dilatation, gastrectomy, vagotomy, gastric bypass, bowel resections
Swallowing Difficulty	<ul> <li>Mechanical causes: inflammation, surgery,</li> </ul>	Radiologic findings, e.g., abnormal swallow study
"Impaired or difficult movement	stricture, or oral, pharyngeal and	•Evidence of dehydration ,e.g., dry mucous membrane, poor skin turgor
of food and liquid with the oral cavity	-	•Non-normal findings in cranial nerves and (CN VII) muscles of facial expression, (Nerve IX) gag reflex, swallow (Nerve X) and tongue range
to the stomach"		of motions (nerve XII), cough reflex, drooling, facial weakness and
	MS, scleroderma, or prematurity, altered	ability to perform wet and dry swallow
	suck, swallow, breathe patterns.	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,.
		• Prolonged feeding time
		Decreased estimated food intake
		Avoidance of foods
		•Mealtime resistance
		•Conditions associated with a dx or tx of dysphagia, achalasia,
		Repeated upper respiratory infections and/or pna
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Nutritific Diagnostic Statement	Buology (Cause/Contributing Pactors)	Signs and Symptoms (Defining characteristics)
Excessive Carbohydrate Intake  "intake more than the recommended level and type of carbohydrate compared to established reference standards or recommendations based on physiological needs."	<ul> <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 amount of carbohydrate intake</li> <li>Food and nutrition compliance limitations, e.g., lack of willingness or failure to modify carbohydrate intake in response to recommendations from a dictitian or physician.</li> <li>Psychological causes such as depression and disordered eating.</li> </ul>	<ul> <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 Reports or observations of:</li> <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 eg 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>
Excessive Intake from EN/PN "Enteral or parenteral infusion that provides more calories or nutrients compared to established reference standards or recommendations based on physiological needs"	<ul> <li>Physiological causes, e.g., decreased needs related to low activity levels with crucial illness or organ failure.</li> <li>Food-an nutrition-related knowledge deficit concerning appropriate amount of EN/PN</li> </ul>	<ul> <li>Elevated BUN:creatinine ratio (Protein)</li> <li>Hyperglycemia (carbohydrate)</li> <li>Hypercapnia</li> <li>Elevated liver enzymes</li> <li>Weight gain in excess of lean tissue accretion</li> <li>Edema with excess fluid administration</li> <li>Reports or observations of:</li> <li>Estimated intake from enteral or parenteral nutrients that is consistently more than recommended intake for carb, protein, and fat (e.g. 36 kcal/kg for well, active adults; 25 kcal/kg or as measured by IC for critically ill adults; 0.8 g/kg prot 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).</li> <li>Use of drugs that reduce requirements or impair metabolism of energy, protein, fat or fluid.</li> <li>Unrealistic expectations of weigh gain or ideal weight.</li> </ul>