

THERAPEUTIC DIETS

Health Disorder	Dietary Modification	Rationale or Comments
AIDS	Based on specific symptoms.	See Diarrhea and COPD
Anemia, folate deficiency	Recommend folic acid (folate) supplements. Increase dietary intake of dark-green, leafy vegetables.	Lab reports "megaloblastic" RBCs. Folate is essential for RBC production and maturation. Maternal deficiency prior to conception is associated with fetal neural tube defects (spina bifida).
Anemia, iron deficiency (called <i>milk anemia</i> in child who drinks excessive amounts of milk rather than eating iron-rich foods)	Give iron supplements and iron-rich diet that includes liver, red meats, whole grains, dark-green leafy vegetables, and cereals. Ensure adequate intake of vitamin C.	Lab reports "hypochromic" and "microcytic" RBCs. Milk and antacids impair absorption of iron supplements. Vit C facilitates absorption of iron.
Anemia, pernicious	Administer B ₁₂ .	Lab reports "megaloblastic" RBCs. Anemia is caused by malabsorption of B ₁₂ .
Anemia, sickle cell	Increase fluids to at least 1½ times usual requirement for weight and age. Folic acid (folate) may be given.	Sickled cells tend to clump together, causing vaso-occlusion. Increased fluid intake results in hemodilution, which impedes the clumping process. Folic acid essential for normal RBC formation.
Arthritis	Maintain ideal body weight by limiting fat and caloric intake.	Excess weight causes stress on joints.
Burns	High kilocaloric and protein intake. Give vitamin and mineral supplements. Enteral or parenteral feedings if PO feedings inadequate.	Calories and protein needed for healing. Decreased level of consciousness, poor appetite, or paralytic ileus may interfere with PO intake.
Calculi, renal	Generous fluid intake. Dietary calcium adequate to maintain serum calcium and prevent excessive bone loss of	Calculi most often composed of calcium, which is more soluble in acidic urine. Dilute urine less likely to support stone formation.

	calcium.	
Cancer	Varies according to site and type of cancer. Generally, increase calories and protein with low to moderate fat. When chemotherapy destroys taste buds, slightly salty or sour tastes are usually accepted best.	Progressive disease causes hypermetabolism, weight loss, negative nitrogen balance, and the use of fat and muscle tissue for energy.
Cardiovascular disease	<i>Prudent diet</i> : Control calories in accordance with ideal body weight. Diet to consist of: carbohydrate (mainly complex) = 50% of daily calories, protein = 20% of daily calories, and fat (mostly vegetable) = 30% of daily calories. Salt added lightly during cooking, but not at table. Avoid salty-tasting foods.	These are recommendations of the American Heart Association for prevention and treatment of CV disease. Fat has 9 cal/g, whereas protein and carbohydrates have 4 cal/g. Excess salt may cause edems, which may result in elevated B
Celiac disease	Exclude wheat, oats, rye, barley, and buckwheat products. Give potato, corn, and rice products.	Foods on "excluded list" cause diarrhea and GI villi atrophy in persons with this inborn disorder.
Cholecystitis or cholelithiasis	Low-fat or possibly a fat-free diet for a limited time.	Fat in duodenum stimulates gallbladder contraction, thereby causing pain. Fat-free diet for more than 1 month may result in essential fatty acid deficiency.
Cirrhosis	Increase calories. Protein as tolerated (usually limited). Moderate fat. Low sodium. MCT oil if fat poorly tolerated. BCAAs (branched-chain amino acids) may be used to provide protein.	Anorexia usually present. Low sodium does not eliminate edema but may slow its progression. BCAAs are amino acids that do not require metabolism by liver. Monitor serum ammonia level to assess dietary protein tolerance.
Constipation	Increase fluid and fiber	Extra fluids and fiber increase

	<p>intake. If enteral feedings are in use, try formula with added fiber. If fiber-containing formula is ineffective, try one that is fiber free. Corn syrup may be added to infant formula.</p>	<p>peristalsis. (High-fiber intake can result in constipation if fluid intake is inadequate.) Corn syrup increases osmolarity of intestinal contents, thereby pulling water into gut and softening stool.</p>
COPD	<p>Increase fats. Decrease carbohydrates. Adequate fluids.</p>	<p>Fat has lower R/Q (respiratory quotient), uses less oxygen, and releases less CO₂ than carbohydrates or protein. Fluids help liquefy pulmonary secretions.</p>
Crohn's disease (regional enteritis)	<p><i>Inactive periods:</i> Regular diet with lactose and fiber limited. <i>Exacerbations:</i> Increase calories and protein. Parenteral (IV) feedings may be used.</p>	<p>Lactose poorly tolerated because of deficiency or absence of enzyme (lactase) needed for its digestion. Fiber is irritating to intestinal mucosa. Increased calories and protein needed because of fecal losses and malabsorption. Parenteral feeding allows gut to rest and heal.</p>
Cystic fibrosis	<p>Increase calories and protein. Fats as tolerated (decrease if stools are fatty). Encourage salty foods.</p>	<p>Genetic condition results in malabsorption of nutrients because of lack of adequate pancreatic enzymes and thick intestinal secretions. Excessive electrolytes are lost in sweat.</p>
Decubitus (pressure ulcers)	<p>Adequate kilocalories, protein, vitamin C, iron, and zinc.</p>	<p>These are critical components of the healing process.</p>
Diabetes mellitus Type 1	<p>Balance available glucose from food with available insulin. Exchange system often used. Dietary fiber may reduce rate of GI glucose absorption.</p>	<p>Pancreas produces limited or no insulin. Children have unpredictable activity spurts and high levels of growth hormone, causing blood glucose levels to be inconsistent even when a strict diet is followed. It is</p>

	For children, limitation of concentrated sweets may be only modification. Diet adjusted for individual life style and eating habits.	psychologically important for children to have diets similar to their peers.
Type 2	Primarily weight reduction and control of diet.	Reducing one's weight (if overweight) decreases insulin requirement.
MODY (mature-onset diabetes of the young)	Similar to Type 2 that occurs in adults.	
Diarrhea	First, give diet of clear liquids (including ORS [oral rehydration solutions]). NPO if PO intake causes increased stooling. Advance to full liquids if tolerated, then to BRAT diet (bananas, rice, applesauce, and tea or toast).	ORS contain fluids and electrolytes. Elements of BRAT diet contain pectin and nonirritating carbohydrates.
Diverticulitis	High fiber during remissions. Bland diet during exacerbations. Elemental formulas or parenteral feedings may be used.	High fiber helps to promote peristalsis and may prevent material from remaining in diverticula but is not tolerated during exacerbations. Elemental formulas (predigested) or parenteral feedings allow gut to rest.
Dumping syndrome	Alternate liquids and dry foods. Avoid simple carbohydrates such as fruit juices or sodas. Dilute concentrated tube-feeding formulas.	Alternation of liquid and dry foods puts less food in solution, thereby decreasing osmolarity of gut contents. Simple carbohydrates trigger rapid release of insulin, resulting in hypoglycemia after the GI supply of glucose diminishes. Concentrated tube-feeding formulas attract water to the gut.
Edema	Control sodium. Provide adequate protein.	Edema may be caused by excess sodium or decreased albumin levels, or both.

Esophagitis	Give small, frequent meals. Promote weight loss if overweight. Avoid caffeine, pepper, and any food not well tolerated. Chew food thoroughly. Avoid lying down after meals.	Large meals, obesity, or lying down causes increased abdominal pressure resulting in esophageal reflux. Foods avoided are those that cause irritation. Hiatal hernia often results in esophagitis.
Fracture	Adequate protein, calcium, phosphorus, and vitamins A, C, and D. Dairy products are excellent sources for the above nutrients except for vitamin C. Citrus fruits provide vitamin C.	Adequate protein and vitamin C needed for collagen formation. Adequate calcium and phosphorus needed for bone strength. Vitamins A and D necessary for bone cell development, protein synthesis, and mineralization.
Gallbladder disease	See Cholecystitis	
Gastroesophageal reflux disorder (GERD)	Avoid chocolate, fatty foods, peppermint and spearmint oils, caffeine, and alcohol. Encourage protein-rich foods.	Listed foods lower (loosen) esophageal sphincter pressure, which results in reflux. Protein increases (tightens) sphincter pressure.
Gout	Encourage fluids. Limit fats. Decrease high-purine foods such as meats (especially organ meats), fish, fowl, lentils, whole grains, asparagus, mushrooms, spinach, cauliflower, and alcohol.	Extra fluid promotes uric acid excretion and helps prevent renal stone formation. Fats prevent excretion of uric acid. Purine breaks down to form uric acid.
Hepatic encephalopathy	Limit protein intake. Essential amino acids may be used (given IV).	On the limited-protein diet, essential amino acids receive top priority because they cannot be manufactured by the body. Ammonia improperly removed from serum by liver causes abnormal CNS symptoms. See Cirrhosis
Hepatitis	High calorie and protein. Moderate fat.	Anorexia is major problem. Moderation of fat promotes

	Avoid alcohol.	liver regeneration and healing. Alcohol is detoxified by the liver.
Hiatal hernia	Same indications as <i>Esophagitis</i> .	
Hypertension	Control calories to avoid excess weight. Limit sodium. Increase foods high in potassium (fruits and vegetables) and calcium (low-fat dairy products). DASH diet	Obesity increases risk of hypertension. Although the role of sodium in hypertension is debated, research shows that limiting dietary sodium and increasing potassium and calcium can lower blood pressure.
Irritable bowel syndrome	Regular diet when asymptomatic. Bland diet during exacerbation.	Bland diet decreases GI irritation.
Lactose intolerance	Reduce lactose (milk sugar) intake.	Condition may be partial or complete and may be inherited or due to stress or GI irritation.
Nausea/vomiting	Clear liquids. Offer ORS every 20–30 min.	Clear liquids prevent dehydration. ORS replaces electrolytes lost in emesis.
Nephrosis or nephrotic syndrome	Increase protein in diet unless accompanied by renal failure or elevated BUN. No salt added at table.	Protein is lost in urine in this disorder. Salt restriction does not remove edema but may limit its increase.
Obesity	Decrease calories. Modify food habits.	One pound of adipose (fat) tissue is roughly equivalent to 3500 Kcal. An increase or decrease of 500 Kcal a day leads to 1 lb weight gain or loss per week.
Osteoporosis	Ensure adequate dietary calcium by consuming dairy products or by taking supplemental calcium. Encourage exercise as tolerated.	Adequate dietary calcium and adequate exercise thought to be preventive.
Ostomy	Progress from clear liquid to low-residue, high-	Ostomies result in increased nutrient losses (including

	<p>calorie diet. Maintain until desirable weight attained.</p> <p>Gradually add fiber (individual tolerance varies), avoiding gas-forming foods (based on individual tolerance).</p> <p>Ileal resections make B₁₂ injections necessary.</p>	<p>electrolyte) from GI tract.</p> <p>Diet is individualized to avoid foods that cause patient to have excess stooling or gas.</p> <p>Intrinsic factor not available following ileal resection; therefore, B₁₂ cannot be absorbed through GI tract.</p>
Pancreatitis	<p>High protein, high carbohydrate with fat added to tolerance.</p> <p>Eliminate gastric stimulants such as coffee, tea, alcohol, and pepper.</p> <p>Withhold oral feedings during exacerbations.</p>	<p>Tolerance of fat is judged by fat in stools, abdominal distention, or abdominal discomfort.</p> <p>Gastric stimulants cause irritating pancreatic enzymes to be secreted.</p>
Peptic ulcer	<p>Bland diet with small, frequent feedings if ulcer is active.</p> <p>Avoid meat extract, pepper, caffeine, and alcohol.</p>	<p>Meat extracts stimulate stomach acid secretion.</p> <p>Obvious irritating foods avoided.</p>
Phenylketonuria	<p>Control phenylalanine (an essential amino acid) in diet.</p> <p>Breast-feeding is contraindicated.</p>	<p>An inborn error results in a lack of enzyme needed to catabolize phenylalanine.</p>
Renal dialysis	<p>Generous calories.</p> <p>Supplement of water-soluble vitamins.</p> <p>Limit fluids, protein, potassium, sodium, and phosphates.</p>	<p>See Renal Failure</p>
Renal failure, acute	<p>Restrict protein until BUN and serum creatinine are normal.</p> <p>Restrict fluids during oliguric phase.</p> <p>Replace electrolyte deficits. (Avoid giving potassium during oliguric phase.)</p>	<p>Urea (BUN) and creatinine are the end products of protein metabolism. If kidneys are unable to remove urea, blood levels rise and affect CNS.</p> <p>Serum potassium levels may fluctuate rapidly.</p>

Renal failure, chronic	Restrict protein proportionate to kidney function. Prevent weight loss by including sufficient calories. Amino acids may be given. Restrict potassium and phosphate intake.	Urea and creatinine accumulate in blood from protein breakdown. Addition of essential amino acids may be indicated if protein tolerance is less than 20 g/24 h. (Monitor BUN and creatinine.) Diseased kidneys do not effectively remove potassium, phosphates, urea, or creatinine from the blood.
Surgery	Adequate protein, calories, iron, and vitamin C.	Listed nutrients are needed for connective tissue (collagen) formation.
Ulcerative colitis	Low-lactose and low-residue diet. (Avoid dairy products and residue, no alcohol, no fried foods, no raw or cooked whole vegetables.) Regular diet during remission.	Stressed mucosa results in impaired ability to produce lactase, which leads to lactose intolerance. Residue (any material that ends up as fecal mass) is irritating.