Food Safety Nutrition Therapy

This nutrition therapy addresses the food safety concerns of individuals whose immunity is suppressed and who are at high risk for foodborne illness.

This handout offers guidelines for which foods to eat and which foods to avoid to lower your risk of foodborne illness, tips for how to handle fresh fruits and vegetables, and proper cooking temperatures to keep your food safe to eat.

Variations among institutions and physicians may occur, as well as updates with new food safety information.

Cooking Foods to Proper Temperatures

Proper cooking temperatures kill harmful bacteria present in food. Use a meat thermometer to check when meat, poultry, seafood, and dishes containing eggs are done cooking. The USDA-FDA recommends safe minimum internal temperatures for numerous foods, which are listed below.

- Beef, veal, pork, lamb: 145°F (allow to rest 3 minutes before carving or eating)
- Poultry: 165°F
- Ground beef, veal, pork, lamb: 160°F
- Ground poultry: 165°F
- Casseroles, egg dishes: 160°F
- Fin fish: 145°F or until opaque flesh flakes with a fork
- Scallops: cook until flesh is milky white or opaque and firm
- Shrimp, lobster, and crab: cook until they turn red and the flesh is pearly and opaque
- Clams, oysters, and mussels: cook until shells open during cooking
- Leftovers: reheat to at least 165°F
- Deli-style meats and hot dogs: reheat until steaming hot or 165°F
- Soups, gravies, and sauces: bring to a boil
- Meat marinade: discard marinade or boil for several minutes if you plan to reuse it
- Eggs: make sure the yolks and whites are firm, not runny, unless using pasteurized eggs
Handling Produce (Fresh Fruits and Vegetables)

**Fresh Fruits and Vegetables**

- Rinse surface dirt off raw fruits and vegetables.
- Soak raw fruits and vegetables, including those with skins or rinds that will be removed, in water for 2 minutes. Thoroughly rinse fruits and vegetables under running water before eating, peeling, or slicing. Do not use soap, detergents, or bleach solutions.
- Use a small vegetable brush to remove remaining surface dirt. Sanitize the brush between uses.
- Cut away damaged or bruised areas. Bacteria can thrive in these places.
- At the store, buy produce that is not bruised or damaged. If buying fresh already cut produce, be sure it is refrigerated or surrounded by ice.
- At home, chill and refrigerate foods. After purchase, put produce that needs refrigeration away promptly. (Fresh whole produce such as bananas and potatoes do not need refrigeration.) Fresh produce should be refrigerated within 2 hours of peeling or cutting. Leftover cut produce should be discarded if left at room temperature for more than 2 hours.
- Don’t cross-contaminate. Use clean cutting boards and utensils when handling fresh produce. If possible, use one clean cutting board for fresh produce and a separate one for raw meat, poultry, and seafood.
- During food preparation, wash cutting boards, utensils, or dishes that have come into contact with fresh produce, raw meat, poultry, or seafood.
- Do not consume ice that has come into contact with fresh produce or other raw products.
- Use a cooler with ice or use ice gel packs when transporting or storing perishable food outdoors, including cut fresh fruits and vegetables.

**Raw Sprouts**

The FDA offers the following advice about sprouts:

- Cook all sprouts thoroughly before eating to reduce the risk of illness.
- Sandwiches and salads purchased at restaurants and delicatessens often contain raw sprouts.
- When eating away from home, ask that raw sprouts not be added to your food.
- Homegrown sprouts also present a health risk, if eaten raw or lightly cooked, and should be avoided.
Meal Planning Tips

- You may tolerate small, frequent meals more easily than larger meals.
- Choose high-calorie foods if you can’t eat much. Good choices may include:
  - Breaded meats
  - Vegetables with sauces and fruits and vegetables with toppings or dips
  - Starches such as rice, potatoes, and pasta
  - Whole milk products and cheese

- If you experience diarrhea, bloating, gas, or stomach pain after having milk or dairy foods, talk with your doctor or registered dietitian nutritionist (RDN). You may need to avoid these foods or take lactase enzyme supplements.
- If you are losing weight because you cannot eat enough, talk to your doctor or RDN. Commercial supplements may be helpful, particularly between meals.

Food Safety Resources

The US Department of Agriculture Food Safety and Inspection Service and the US Department of Health and Human Services’ Food and Drug Administration provide many resources on food safety topics. This information can be found at [www.foodsafety.gov](http://www.foodsafety.gov) and [www.fda.gov/food](http://www.fda.gov/food).

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### Foods Recommended

<table>
<thead>
<tr>
<th>Food Group</th>
<th>Foods Allowed</th>
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<tbody>
<tr>
<td><strong>Dairy</strong></td>
<td>All pasteurized milk and milk products&lt;br&gt;Commercially packaged cheese and cheese products made with pasteurized milk, such as mild and medium cheddar, mozzarella, parmesan, and swiss&lt;br&gt;Pasteurized yogurt&lt;br&gt;Dry, refrigerated, and frozen pasteurized whipped topping&lt;br&gt;Ice cream, frozen yogurt, sherbet, ice cream bars, homemade milkshakes&lt;br&gt;Commercial medical nutrition supplements (liquid and powdered)&lt;br&gt;Commercial eggnog</td>
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<td><strong>Protein Foods</strong></td>
<td>All well-cooked meat (beef, pork, lamb, ham, bacon, sausage), poultry, and fish and shellfish (see list of proper cooking temperatures)&lt;br&gt;Canned meat, fish, meat spreads, and pates&lt;br&gt;Well-cooked eggs and egg substitutes&lt;br&gt;Reheated deli meats, lunch meats, and hot dogs (heat until steaming hot)&lt;br&gt;Well-cooked tofu</td>
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<tr>
<td><strong>Entrées and Soups</strong></td>
<td>All cooked entrées and soups</td>
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<td><strong>Fruits and Nuts</strong></td>
<td>Canned and frozen fruit and pasteurized fruit juices&lt;br&gt;Well-washed raw fruit; foods containing well-washed raw fruits&lt;br&gt;Dried fruits&lt;br&gt;Canned or bottled roasted nuts&lt;br&gt;Nuts in baked products&lt;br&gt;Shelled roasted nuts&lt;br&gt;Commercially packaged peanut butter</td>
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<tr>
<td><strong>Vegetables</strong></td>
<td>All frozen, canned, or fresh vegetables and cooked potatoes&lt;br&gt;Well-washed raw vegetables&lt;br&gt;Fresh, well-washed herbs and dried herbs and spices</td>
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### Grains
- All breads, bagels, rolls, muffins, pancakes, sweet rolls, waffles, french toast
- Potato, corn, and tortilla chips; pretzels; popcorn
- Cooked pasta, rice, and other grains
- All cereals, cooked and ready-to-eat

### Beverages
- Tap water and ice made from tap water
- Commercially bottled distilled, spring, and natural waters
- All canned, bottled, powdered beverages
- Instant and brewed coffee and tea; cold-brewed tea made with boiling water
- Brewed herbal teas using commercially packaged tea bags
- Commercial nutrition supplements, liquid and powdered

### Desserts
- Refrigerated commercial and homemade cakes, pies, pastries, and pudding
- Refrigerated, cream-filled pastries
- Homemade and commercial cookies
- Shelf-stable cream-filled cupcakes (such as Ding Dongs), fruit pies (such as Poptarts or Hostess fruit pies), and canned pudding
- Ices, popsicle-like products

### Fats
- Oil and shortening
- Refrigerated lard, margarine, butter
- Commercial, shelf-stable mayonnaise and salad dressings (refrigerate after opening)
- Cooked gravy and sauces

### Other
- Salt, granulated sugar, brown sugar
- Jam, jelly, syrup
- Commercial (heat-treated) honey
- Ketchup, mustard, barbecue sauce, soy sauce, other condiments
- Pickles, pickle relish, olives
- Candy, gum

### Foods Not Recommended

Food and fluid restrictions vary among treatment providers. However, it is generally recommended that you avoid foods on the “Foods Not Recommended” list. If gastrointestinal graft-versus-host disease (GVHD) symptoms are present, avoid lactose, high amounts of fat (including fried foods, rich sauces, and rich desserts), and high amounts of fiber (including legumes, nuts, and whole grain cereals with more than 3 grams of fiber per serving).

<table>
<thead>
<tr>
<th>Food Group</th>
<th>Foods Not Recommended</th>
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<tbody>
<tr>
<td>Dairy</td>
<td>Unpasteurized or raw milk, yogurt, and other milk products</td>
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<td></td>
<td>Cheeses made from unpasteurized or raw milk</td>
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<td></td>
<td>Cheeses containing chili peppers or other uncooked vegetables</td>
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<td>Cheeses with molds such as blue, Stilton, Roquefort, and gorgonzola</td>
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<td>Soft cheeses such as brie, camembert, feta cheese, and farmer’s cheese</td>
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<td>Mexican-style soft cheeses, such as queso blanco, queso fresco, and Panela</td>
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<tr>
<td>Protein Foods</td>
<td>Raw, rare, or undercooked meat, poultry, fish, or game</td>
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<td></td>
<td>Raw tofu</td>
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<td></td>
<td>Raw or undercooked eggs (including runny, soft-cooked, or poached) and egg substitutes</td>
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<td>Smoked or pickled salmon or other fish</td>
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<td>Tempeh products</td>
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<td>Sliced meats from the deli and hot dogs, unless reheated until steaming hot</td>
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<td>Refrigerated patés and meat spreads</td>
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<tr>
<td>Entrees and Soups</td>
<td>All miso products, such as miso soup</td>
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<td>Category</td>
<td>Examples</td>
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| Fruits and Nuts | Unwashed raw fruits  
Roasted nuts in the shell  
Unpasteurized fruit and vegetable juices and cider |
| Vegetables    | Unwashed raw vegetables or herbs  
All raw vegetable sprouts, including alfalfa, radish, broccoli, and mung bean  
Salads from delicatessens or salad bars  
Commercial salsas stored in refrigerated case |
| Grains        | Uncooked grain products  
Breads, rolls, and pastries in self-service bins |
| Beverages     | Well water (unless tested yearly and found to be free of coliforms)  
Cold-brewed tea made with warm or cold water  
Unpasteurized fruit and vegetable juices, cider, and beer  
Maté tea |
| Desserts      | Unrefrigerated, cream-filled pastry products |
| Fats          | Refrigerated fresh salad dressings containing aged cheese (for example, blue or Roquefort) or raw eggs |
| Other         | Raw, unpasteurized, or non-heat-treated honey; honey in the comb  
Herbal and nutrient supplement preparations  
Brewer’s yeast, if uncooked  
Foods from shared bins in grocery stores  
Foods from street vendors |

**Notes**