

Food Safety Diet for Immunosuppressed Patients

Individuals with decreased immune function due to chemotherapy and radiation therapy are at increased risk of developing a food-related infection. The purpose of this diet is to help you avoid specific foods that are more likely to contain infection-causing organisms while allowing maximum healthy food choices. Choose food from the “May Eat” column. Do not eat foods in the “Do Not Eat” column. You may want to discuss the safety of these or other foods with your dietitian.

This diet should be followed before and after all conditioning therapy (chemotherapy and/or radiation). Your physician and dietitian will let you know when the diet is no longer required. In general, recommend the following:

- **For autologous (self donor of stem cells) transplant patients undergoing chemotherapy treatment only:** follow this diet during the first three months after chemotherapy or transplant.
- **For allogeneic (stem cells from a donor) transplant patients:** follow the diet until you are off all immunosuppressive therapy such as cyclosporine, prednisone, and tacrolimus, sirolimus or mycophenolate mofetil.

Prior to the end of these time periods, patients and their caregivers should talk to their physician and dietitian regarding whether or not to continue any part of the diet.

Food Groups	May Eat	Do Not Eat
Dairy	<ul style="list-style-type: none"> • All <u>pasteurized</u>, grade “A” milk products including eggnog, ice cream, yogurt (ex: Yoplait, Dannon), frozen yogurt, sherbet, ice cream bars, milkshakes, processed cheese slices and spread, cream cheese, cottage cheese and ricotta cheese. • Dry, refrigerated, or frozen <u>pasteurized</u> whipped topping such as Reddi Wip®, Cool Whip®, etc. • Commercially packaged hard and semi soft cheeses such as cheddar, mozzarella, parmesan, Swiss, Monterey Jack, etc. • <u>Cooked</u> soft cheeses such as brie, camembert, feta and farmer’s cheese. <p>*Though not completely risk free, the risk of contracting food borne illness from COOKED soft cheeses is low*</p>	<ul style="list-style-type: none"> • Non-pasteurized or raw milk and milk products made from non-pasteurized or raw milk. • Cheeses from delicatessens such as Arby’s Fresh Market and Grocery Store Delis. • Cheese containing chili peppers or other uncooked vegetables such as pepper jack cheese. • Cheeses with molds such as blue, Stilton Roquefort, gorgonzola. • Mexican-style soft cheese such as queso fresco and queso blanco. <p>Any dairy products with enhanced or added active cultures (ex: Activa, Kefir, DanActive brands)</p>

Food Groups	May Eat	Do Not Eat
Meat and Meat Substitutes	<ul style="list-style-type: none"> • All meats <u>cooked to well done</u> or <u>canned</u> meats (beef, pork, lamb, poultry, fish, shellfish, game, ham, bacon, sausage, hot dogs) • Eggs <u>cooked until both egg white and yolk are firm</u> • <u>Pasteurized</u> eggs and egg substitutes (such as Egg Beaters®) and powdered egg white (all can be used uncooked) • <u>Commercially-packaged</u> salami, bologna, hot dogs, ham and other luncheon meats <u>heated until steaming</u>¹ • <u>Canned and shelf-stable</u>² smoked fish (refrigerated after opening) (Example: clams, sardines, oysters, etc.) • <u>Pasteurized or cooked</u> tofu³ • Refrigerated smoked seafood such as salmon or trout <u>if cooked to 160°F or contained in a cooked dish or casserole.</u> 	<ul style="list-style-type: none"> • <u>Raw or undercooked</u> meat, poultry, fish, game, tofu¹ • <u>Raw or undercooked</u> eggs and non-pasteurized egg substitutes; no eggs over easy, soft boiled eggs or poached eggs. • Meats and cold cuts from delicatessens such as Arby's Fresh Market, Grocery Deli. • Hard cured salami in natural wrap/casing • Uncooked refrigerated seafood such as sushi, sashimi as well as smoked seafood such as salmon or trout labeled as "nova style," "lox," "kippered," "smoked" or "jerky" • Pickled fish • Tempe (tempeh) products
Fruits and Nuts	<ul style="list-style-type: none"> • <u>Well rinsed</u>⁴ raw and frozen fruit; foods containing well washed raw fruits • <u>Cooked, canned and frozen</u> fruits • <u>Dried</u> fruits • <u>Canned or bottled</u> roasted nuts • <u>Shelled, roasted</u> nuts and nuts in <u>baked products</u> • <u>Commercially-packaged</u> nut butters (such as peanut butter, almond butter, soybean butter) 	<ul style="list-style-type: none"> • <u>Unwashed</u> fruit • <u>Unroasted</u> nuts • Roasted nuts <u>in the shell</u> such as almonds • <u>Non-pasteurized</u> fruit and vegetable juices such as fresh made juices from a restaurant or grocery store. • Fresh fruit salsa found in the grocery refrigerator case • <u>Non-pasteurized</u> items containing raw fruits found in the grocery refrigerator case.

¹ Commercially packaged meats are to be heated to an internal temperature of 165°F or until steaming hot just before serving.

² Shelf-stable refers to unopened canned, bottled, or packaged food products that can be stored before opening at room temperature; container may require refrigeration after opening.

³ Aseptically packaged, shelf stable tofu and pasteurized tofu do not need to be boiled. Unpasteurized tofu must be cut into 1-inch cubes or smaller, boiled a minimum of five minutes in water or broth before eating or using recipes.

⁴ Well rinsed under clean, running water before use, including produce that is to be cooked or peeled (such as bananas, oranges and melon)

Food Groups	May Eat	Do Not Eat
Vegetables	<ul style="list-style-type: none"> • <u>Well rinsed</u>⁴ raw and frozen vegetables • All <u>cooked</u> fresh, frozen or canned vegetables, including potatoes • <u>Shelf stable</u>¹ bottled salsa (refrigerated after opening) • <u>Cooked</u> vegetables sprouts (such as mung bean sprouts) • Fresh, <u>well rinsed</u>⁴ herbs and dried herbs and spices (added to raw or cooked foods) • Lettuce or other leafy vegetable salads (<u>*home consumption only</u>; no dine out, hospital or other large production facilities consumption) 	<ul style="list-style-type: none"> • <u>Unwashed raw</u> vegetables or herbs • Fresh, non-pasteurized vegetables salsa found in the grocery store case • <u>Non-pasteurized</u> items containing raw vegetables found in the grocery store case • All <u>raw vegetable sprouts</u> (alfalfa sprouts, clover sprouts, mung bean sprouts, all others) • Salads <u>from delicatessens</u>
Bread, Grain and Cereal Products	<ul style="list-style-type: none"> • Packaged or homemade breads, muffins, bagels, cakes, rolls, most donuts, cookies • Boxed hot or cold cereal • Cooked potatoes, rice, noodles • Crackers and snack foods 	<ul style="list-style-type: none"> • Raw (not baked or cooked) grain products (such as raw oats) • Unrefrigerated cream-filled pastry products (not shelf-stable²) such as cream donuts, éclairs, cream puffs, etc.
Entrees, Soups	All cooked entrees and soups	All miso products (such as miso soup and miso paste)

Food Groups	May Eat	Do Not Eat
Beverages	<ul style="list-style-type: none"> • <u>Boiled</u> well water⁵ • Tap water and ice made from tap water (City/County/Municipal) • <u>Commercially-bottled</u> distilled, spring and natural waters • All <u>canned, bottled and powdered</u> beverages • Instant and brewed coffee and tea; cold brewed tea <u>made with boiling water</u> • Herbal teas brewed from <u>commercially-packaged</u> tea bags. • <u>Commercial</u> nutritional supplements, both liquid and powdered such as Carnation Instant Breakfast®, Boost®, etc. 	<ul style="list-style-type: none"> • <u>Unboiled</u> well water • Cold brewed tea <u>made with warm or cold water</u> • <u>Non-pasteurized</u> fruit and vegetable juices such as fresh made juices in a restaurant or grocery store. • Mate tea • Wine, <u>unpasteurized</u> beer • NOTE: <u>All</u> alcoholic beverages should only be consumed following physician approval
Desserts	<ul style="list-style-type: none"> • <u>Refrigerated</u> commercial and homemade cakes, pies, pastries and puddings. • <u>Refrigerated</u> cream-filled pastries • Cookies, both homemade and commercially prepared (such as Chips Ahoy!®, Snackwells®, etc.) • <u>Shelf-stable</u>³ cream filled cupcakes (such as Twinkies®, Ding Dongs®) and fruit pies (such as Poptarts® and Hostess ® fruit pies) • <u>Canned and refrigerated</u> products puddings • Ices, popsicles, and similar products • Candy, gum 	<ul style="list-style-type: none"> • Unrefrigerated cream-filled pastry products (not shelf-stable²) such as cream donuts, éclairs, cream puffs, etc.

⁵ Bring tap water to a rolling boil and boil for 15 to 20 minutes. Store boiled water in the refrigerator. Discard water not used within 48 hours (2 days).

Food Groups	May Eat	Do Not Eat
Fats	<ul style="list-style-type: none"> • Vegetable oils and shortening • <u>Refrigerated lard</u>, margarine, butter • <u>Commercial, shelf-stable³</u> mayonnaise and salad dressings including Blue cheese and other cheese based salad dressings (refrigerated after opening) • <u>Cooked</u> gravy and sauces 	<ul style="list-style-type: none"> • <u>Fresh</u> salad dressings (stored in the grocer's refrigerated case) containing raw eggs or cheeses listed as "Do not eat" under "Dairy"
Other	<ul style="list-style-type: none"> • <u>Commercial pasteurized</u> Grade A honey⁶ • <u>Salt & Pepper, granulated sugar, brown sugar</u> • Jam, jelly, syrups (refrigerated after opening) • Catsup, mustard, barbecue sauce, soy sauce, other condiments (refrigerated after opening) • Pickles, pickle relish, olives (refrigerated after opening) • Vinegar • Dried herbs and dried seasonings 	<ul style="list-style-type: none"> • <u>Raw</u> honey; honey <u>in the comb</u> • Herbal and nutrient supplement preparations • Brewers yeast, if <u>uncooked</u>

	May Eat	Do Not Eat
Dining Out 	<ul style="list-style-type: none"> • Ask for single-serving condiment packages. 	<ul style="list-style-type: none"> • Do not use public self-serve condiment containers, including salsa. • Avoid salad bars, delicatessens, buffets, potlucks and sidewalk vendors. • Avoid fresh fruits & vegetables when dining out. • Avoid crowds.

References:

- 1) <http://www.cdc.gov/listeria/prevention.html>
- 2) Nutrition Care Criteria, Seattle Cancer Care Alliance, 2012.
- 3) P:/Food Services/Clinical Nutrition/Patient Education/NH created materials/Specialty Diets & Info/Neutropenic Diet revised July 05-2.doc.
- 4) *The Clinical Guide to Oncology Nutrition, Second Edition* (Chicago, IL: The Academy of Nutrition and Dietetics).
- 5) <http://marrow.org>
- 6) <http://www.fda.gov>

⁶ Honey products are not allowed for any child less than one year of age and not allowed for children with Severe Combined Immunodeficiency Syndrome until 9 months post-transplant.

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