

Client Name _____ Date _____

RDN/NDTR _____

Email _____ Phone _____

Hematopoietic Stem Cell Transplant Nutrition Therapy

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

Tips

Meal Planning Tips

- Small, frequent meals may be easier for you to tolerate than larger meals.
- Choose high-calorie foods if you can't eat much. Good choices may include:
 - Breaded meats
 - Vegetables with sauces
 - Starches such as rice, potatoes, and pasta
 - Fruits and vegetables with toppings or dips
 - 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 dietitian. 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 dietitian. Commercial supplements may be helpful, particularly between meals.

Shopping Tips

- Buy foods in small amounts so they will be fresh when eaten.
- Choose snack-sized or single-serving packages. These may help you measure portions and not waste food.

Cooking Tips

- Wash hands well before, during, and after making and eating food.
- Do not share your food with other people.
- Wash raw foods well before eating them.
- Check food for bruises, broken skins, rot, and mold. Do not use food that looks or smells bad.
- Cook meats, fish, poultry, and eggs until well done.
- Keep cold foods cold (less than 40°F, which is less than 4.4°C) and hot foods hot (more than 140°F, which is more than 60°C)
- Clean all cooking tools, pots, and dishes completely before and after use.
- Do not keep refrigerated leftovers for more than 3 days.

Foods Recommended

The following eating guidelines specify which foods to eat or avoid to minimize the risk of foodborne illness. Variations among institutions and physicians may occur, as well as updates with new food safety information.

Food Group	Foods Recommended
Dairy	All pasteurized milk and milk products Commercially packaged cheese and cheese products made with pasteurized milk (e.g., mild and medium cheddar, mozzarella, parmesan, Swiss) Pasteurized yogurt Dry, refrigerated, and frozen pasteurized whipped topping Ice cream, frozen yogurt, sherbet, ice cream bars, homemade milkshakes Commercial medical nutrition supplements, liquid and powdered Commercial eggnog
Meat and Meat Substitutes	All well-cooked meats (beef, pork, lamb, poultry, fish, shellfish, ham, bacon, sausage) Canned meat or fish and meat spreads Well-cooked eggs and egg substitutes Reheated deli meats and hot dogs Well-cooked tofu
Entrées and Soups	All cooked entrées and soups
Fruits and Nuts	Canned and frozen fruit and pasteurized fruit juices Well-washed raw fruit; foods containing well-washed raw fruits Dried fruits Canned or bottled roasted nuts Nuts in baked products; shelled roasted nuts Commercially packaged peanut butter
Vegetables	All frozen, canned, or fresh vegetables and cooked potatoes Well-washed raw vegetables Fresh, well-washed herbs and dried herbs and spices
Bread, Grain, and Cereal Products	All breads, bagels, rolls, muffins, pancakes, sweet rolls, waffles, French toast Potato chips, corn chips, 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

Food Group	Foods Recommended
	Homemade and commercial cookies Shelf-stable cream-filled cupcakes, fruit pies, and canned pudding Ices, popsicle-like products
Fats and Oils	Oil, 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, syrups Commercial (heat-treated) honey Catsup, mustard, BBQ sauce, soy sauce, other condiments Pickles, pickle relish, olives Candy, gum

This list of recommended foods was adapted with permission from the Fred Hutchinson Cancer Research Center Diet Guidelines for Immunosuppressed Patients at http://www.fhcr.org/science/clinical/ltfu/patient/diet_guidelines.html.

* Evidence for boiling water and using a water filter is insufficient to recommend these practices and is based on mostly expert opinion. These practices are optional.

Foods Not Recommended

Food and fluid restrictions vary among treatment providers; however, it is generally recommended to avoid foods on the "not recommended" list. If gastrointestinal graft-versus-host disease (GVHD) symptoms are present, it is prudent to 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 >3 grams fiber/serving).

Food Group	Foods Not Recommended
Dairy	Unpasteurized or raw milk, cheese, yogurt, and other milk products Cheeses containing chili peppers or other uncooked vegetables Cheeses with molds (e.g., blue, stilton, roquefort, gorgonzola) Sharp cheddar, brie, camembert, feta cheese, farmer's cheese
Meat and Meat Substitutes	Raw or undercooked meat, poultry, fish, game, raw tofu Raw or undercooked eggs and egg substitutes Smoked or pickled salmon or other fish Tempe (tempeh) products Sliced meats from the deli and hot dogs unless reheated until steaming hot Refrigerated patés and meat spreads
Entrées and Soups	All miso products (e.g., miso soup)
Fruits and Nuts	Unwashed raw fruits Unroasted raw nuts

Food Group	Not Recommended
	Roasted nuts in the shell Unpasteurized fruit and vegetable juices and cider
Vegetables	Unwashed raw vegetables or herbs All raw vegetable sprouts (e.g., alfalfa, radish, broccoli, mung bean) Salads from delicatessens Commercial salsas stored in refrigerated case
Bread, Grain, and Cereal Products	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 and cider Maté tea
Desserts	Unrefrigerated, cream-filled pastry products
Fats and Oils	Refrigerated fresh salad dressings containing aged cheese (e.g., blue, Roquefort) or raw eggs
Other	Raw or non-heat-treated honey; honey in the comb Herbal and nutrient supplement preparations Brewer's yeast, if uncooked

This list of not recommended foods was adapted with permission from the Fred Hutchinson Cancer Research Center Diet Guidelines for Immunosuppressed Patients at http://www.fhcr.org/science/clinical/ltfu/patient/diet_guidelines.html.

Name _____ Date _____

Email _____ Phone _____

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 and www.fda.gov/food.

Notes:

