

The Detoxification Food Plan is intended to optimize detoxification in the body by identifying foods that are the most supportive for phase 1, phase 2 and phase 3 detoxification.

Phase 1 Detoxification: The initial phase is described as functionalization, which involves adding a reactive site on the toxic compound to make it more hydrophilic. The cytochrome p450 enzymes are responsible for adding the reactive groups via different enzymatic reactions. The toxic compounds are then converted into intermediary metabolites and the by-product of these reactions are reactive oxygen species.

Phase 2 Detoxification: The second phase (phase 2) of detoxification is described as conjugation, which includes adding a water-soluble group (endogenous hydrophilic substance) to the formed reactive site. Various hydrophilic compounds via different enzymes catalyze this step of detoxification (glucuronidation, acetylation, glutathione conjugation, amino acid conjugation, sulfating, methylation). The goal of this step is to increase the hydrophilicity of the toxic metabolite, therefore increasing its ability to be eliminated from the body.

Phase 3 Detoxification: The last phase is focused on excretion, which is the actual removal of toxins from the body through urine, bile (stool) and the skin.

- **FOCUS:**

- Antioxidant rich foods to offset reactive oxygen species formed from phase 1 detoxification
- Nutrients important for multiple phase 2 detoxification pathways (Amino acid rich foods for Amino acid conjugation, Glucaric acid rich foods for glucuronidation, Sulfur rich foods for sulfation, etc.)
- Foods to facilitate excretion (through liver -> bile-> intestines) by focusing on cholagogue foods, high fiber options and probiotic rich foods
- *Note: there are some foods that are phase 1 inhibitors that are not included (these might be appropriate if phase 2 detoxification is very slow and needs to be upregulated prior to upregulating phase 1)*

- **ELIMINATE:** Dairy, gluten, high mercury seafood (only include seafood with <.2ppm), foods high in chemicals/environmental toxins (plastic packaging)

- **ADDITIONAL GUIDELINES:**

- **ORGANIC:** Choose organic, non-GMO to minimize exposure to environmental pesticides/herbicides/fungicides
 - Reduce other toxins that may be found in food, such as BPA lining on cans, plastic packaging, etc.
- **COLOR:** Emphasize colorful foods to increase antioxidants, phytonutrient compounds and diversity in the diet
- **OPTIMIZE:** Increase nutrients in food by focusing on preparatory & cooking methods such as:
 - Soak and sprout foods such as grains, legumes, nuts and seeds
 - Opt for ideal cooking methods: Steaming, braising, baking & roasting (avoid high heat), pressure cooker (particularly for legumes)

- **FOOD SENSITIVITIES:** Avoid foods that trigger an immune response. Consider food sensitivity testing to identify reactive foods.

- **Food Zoomers:** (Wheat, Corn, Grain, Soy, Egg, Dairy, Lectins, Seafood, Mammalian Milk, Peanut, Nuts), IgA+IgG Food Sensitivities, IgG4 + C3D Food Reactions, IgE Allergies

The Detoxification Food Plan is designed for informational use only and is not intended for medical nutrition therapy or the dietary management, treatment, cure, or prevention of a disease or condition. Practitioners should personalize food plans according to an individual's food allergies, sensitivities, and intolerances, as well as for macronutrient distribution, micronutrient needs, and caloric ranges as appropriate..

Dairy Alternatives

_____ Servings per day

Low glycemic: Choose unsweetened, limit to 1-2 servings per day (remove if sensitive to dairy)

Dairy Alternatives:

"Milk": Almond, coconut, cashews, flax, hemp, hazelnut, oat, soy	6-8oz
Kefir (dairy free, active cultures) Δ	4-6oz
Yogurt (dairy free) Δ	4-6oz
Vegan cheese	1oz

1 serving as listed = 25-120kcal, 1-9g protein, 1-4g carbs (Nutritional values vary)

Discuss servings with your provider.

Vegetables (Starchy)

_____ Servings per day

Acorn squash	1c
Butternut squash	1c
Parsnips	1/2 c
Potato (white, purple) Δ	1/2 c
Pumpkin	1/2 c
Rutabaga	1/2 c
Sweet potato	1/2 c
Yam	1/2 c

1 serving as listed = 25-120kcal, 1-9g protein, 1-4g carbs (Nutritional values vary)

Vegetables (Non-Starchy)

_____ Servings per day

Choose a variety of colorful produce; Focus on cruciferous vegetables and dark leafy greens

Artichokes Δ Δ
Asparagus Δ
Bamboo shoots Δ
Beets Δ
Bok Choy Δ
Broccoli Δ
Brussels sprouts Δ
Cabbage (green, red) Δ
Carrots Δ
Cauliflower Δ
Celery Δ Δ
Cucumbers Δ
Eggplant
Garlic Δ Δ
Ginger Δ Δ
Green beans Δ
Green onion/Scallions Δ
Greens:
Arugula/Roquette Δ Δ , Beet, Chard Δ ,
Collard Δ , Dandelion Δ Δ , Endive,
Kale Δ Δ , Microgreens, Mustard Δ Δ ,
Swiss chard, Watercres
Jerusalem artichokes (sunchoke)
Jicama
Leeks Δ
Lettuce Δ
Mushrooms
Onion Δ
Okra Δ
Peppers, all Δ
Radicchio
Radishes Δ
Scallions
Sea vegetables
Shallots Δ
Spinach Δ

Sprouts, all
Squash: *Delicata, spaghetti, yellow, zucchini, etc.*
Tomato Δ
Turnip Δ
1 serving = 1/2c cooked, 1 C raw = 25kcal, 5g carbs

Fruits

_____ Servings per day

Choose variety and color to increase antioxidants

Apple Δ Δ	1 sm
Apricots Δ	4
Banana	1/2 med
Blackberries Δ	3/4 c
Blueberries Δ	3/4 c
Cherries Δ	12
Cranberries	3/4 c
Date	1
Dragon fruit	3/4 c
Figs	3
Grapes Δ	15
Grapefruit Δ	1/2 med
Kiwi	1 med
Lemon Δ	1
Lime Δ	1
Mandarin Δ	1
Mango	1/2 sm
Melon, all	1 c
Orange Δ	1 med
Papaya	1 c
Peach Δ	1 sm
Pear	1 sm
Pineapple	3/4 c
Plantain	1/2 med
Plums Δ	2 sm
Pomegranate seeds Δ	1/2 c
Prunes	3 med
Raspberries Δ	1 c
Strawberries Δ	1 1/4 c

1 serving as listed = 60kcal, 15g carbs

MOST DETOXIFYING FOODS (Phase 1 & Phase 2 inducers)

Δ Phase 2 conjugation inducers

Δ Phase 3 excretion support

Legumes

_____ Servings per day

Beans:	1/2 c
Black Beans, Black-eye peas, Broad beans, Chickpeas, Kidney beans, Mung beans Δ , Navy beans, Pinto beans	
Green peas Δ	1/2 c
Hummus	1/4 c
Lentils Δ	1/2 c
Peanuts	10
Soybeans: Δ	1/4 c
Edamame Δ	1/4 c
Natto Δ	1 oz
Tofu Δ	2-3 oz
Tempeh Δ	1 oz

*1 serving = 110kcal, 15 carbs, 7g protein
(Nutritional values vary)*

Protein (Meat, eggs, fish, mollusks, & shellfish)

_____ Servings per day

Organic, grass-fed/pasture raised animals, wild-caught seafood preferred, only low mercury (<.2ppm)

Meat & Eggs: Δ

Beef, Bison, Chicken, Duck, Eggs, Lamb, Pork, Rabbit, Turkey, Venison

Fish: Δ

Alaskan pollock, Anchovy, Carp, Cod, Flounder, Mackerel, Perch, Salmon, Sardines, Sea bass, Sole, Trout

Shellfish: Δ

Crab, Lobster, Shrimp, Crayfish, etc.

Mollusks: Δ

Blue mussel, Clam, Oyster, Octopus, Pacific squid, Scallops, Squid, etc.

Protein powders: Δ

Collagen peptides, Whey protein

*1 serving = 1oz = 35-75kcal, 5-7g protein, 0-4g fat
(Nutritional values vary)*

Grains (GF Grains & Alternatives)

_____ Servings per day

Choose gluten-free grains and alternatives

Gluten free grains & Starches:

Amaranth	3/4 c
Bread (GF)	1 slice
Buckwheat/kasha	1/2 c
Cassava	1/2 c
Crackers (GF)	5-10
Corn	1/2 c
Millet	1/2 c
Oats: Rolled, steel-cut, GF Δ	1/2 c
Pasta (GF)	1/2 c
Quinoa	1/2 c
Rice	1/2 c
Sorghum	1/2 c
Tapioca	1/2 c
Taro root	1/2 c
Tiger nut	1/2 c
Teff	3/4 c
Wild rice	1/2 c

*1 serving as listed = 80kcal, 15g carbs
(Nutritional values vary)*

Nuts

_____ Servings per day

Unsweetened nuts recommended

Almonds Δ	6
Brazil nuts Δ	2
Cashews	6
Hazelnuts	5
Macadamias	2-3
Nut butters (any nut listed)	1/2 T
Pecan halves	4
Pine nuts	1 T
Pistachios	16
Poppy seeds	2 T
Sweet Chestnut	10
Walnut halves Δ	4

*1 serving as listed = 45kcal, 5g fat
(Nutritional values vary)*

Seeds

_____ Servings per day

Unsweetened nuts recommended

Chia seeds Δ Δ	1 T
Flaxseed Δ Δ	2 T
Hemp seeds Δ	1 T
Seed butters (any seed listed)	1/2 T
Pumpkin seeds	1 T
Sesame seeds Δ	1 T
Sunflower seeds	1 T

*1 serving as listed = 45kcal, 5g fat
(Nutritional values vary)*

KEY

MOST DETOXIFYING FOODS (Phase 1 & Phase 2 inducers)

- Δ Phase 2 conjugation inducers
- Δ Phase 3 excretion support

Fats & Oils

_____ Servings per day

Choose cold pressed & minimally refined

<u>Fats:</u> Δ	2 T or 1/8 whole
Avocado	1 t -2T
Coconut (milk, meat, butter)	8
Olives: Black, green, kalamata Δ	1 t
Pesto (DF, olive oil)	1 t

Oils: Δ

Almond, Avocado, Coconut, Flaxseed, Ghee/clarified butter Δ, Hempseed, Olive (extra virgin), Sesame Oils, Walnut

1 serving as listed = 45kcal, 5g fat

Spices

Anise
 Basil
 Bay leaf
 Black pepper
 Caraway Δ
 Cardamom
 Cayenne pepper
 Cilantro Δ
 Cinnamon Δ
 Clove
 Common thyme
 Coriander
 Cumin Δ
 Curry powder Δ
 Dill Δ
 Habanero pepper
 Horseradish Δ
 Hot paprika pepper

Jalapeno pepper
 Lemongrass
 Mint Δ
 Mustard Δ
 Nutmeg
 Oregano
 Parsley
 Rosemary
 Sage
 Thyme
 Turmeric
 Vanilla bean
 Woo-hsiang powder

Miscellaneous

Condiments:

Mustard, Tamari, Coconut aminos, Vinegars, Ketchup

Fermented foods:

Kimchi Δ Δ, Sauerkraut Δ Δ

Other:

Aloe vera Δ, Carob, Cocoa (70% or higher), Chlorella Δ, Honey, Maple syrup, Psyllium Δ

Beverages

Unsweetened preferred

Broth (organic) Δ: Bone, meat, vegetable
 Coconut water
 Coconut water kefir
 Filtered water
 Kombucha
 Sparkling/mineral water
 Tea: Black, green Δ, oolong, rooibos Δ, herbal
 Vegetable juice (raw, cold-pressed, green juice)



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