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# The Detox Food Plan

## What is a 'Toxic Burden?'

Our 'toxic burden' is a result of three main factors:

- Total toxicant exposure from both internal and external sources (diet and environmental).
- Our individual genetic predisposition to effectively processing and eliminating these compounds.
- The availability of appropriate nutrients to support our body's capacity to appropriately transform and remove various chemicals.

Symptoms of toxicity may occur if you get to your personal tolerance limit for accumulated toxins. In this situation you may not be able to clear them fast or efficiently enough. Medical research now recognises many symptoms related to the build-up of toxins. These include obesity, type 2 diabetes and metabolic syndrome, cancer, fatigue, infertility, allergies, behaviour and mood disorders. Many neurological conditions such as tremors, headaches, and cognitive difficulties, along with diseases such as Parkinson's and Alzheimer's mal also be affected by toxin exposure.

Reasons why somebody may not be particularly efficient in clearing toxins are varied and include:

- Having an increased exposure to toxins due to occupation or contamination of the local environment
- Constipation
- Specific nutrient deficiency or a nutrient-poor diet
- High stress levels
- Chronic illness and excessive inflammation
- Poor quality / insufficient restorative sleep
- Genetic reasons

The goal of our metabolic detoxification protocol, is to provide nutritional support to facilitate the pathways involved in the processing and excretion of toxins. This is NOT a 'juice fast'. With careful attention to elimination of toxin exposure and improvements in metabolic clearance, many patients describe improvement in pain and fatigue levels, enhanced cognitive function and moods, more effective and satisfying sleep cycles, and weight loss.

This guide offers directions in how to sequence a healthy detox and wellness plan by providing tips on how to get started, what to eat, what to watch for, and how to provide the body with the right nutrients for longstanding, improved elimination and detoxification

## Food plays a role in all phases of detoxification.

**Removal:** The first step is to identify the toxic foods in the diet (or toxins added to your food). By becoming aware of these chemicals and eating "cleanly," many common toxins can be eliminated.

**Liver support:** Most initial metabolisation of toxins occurs in the liver. We are aiming to provide nutritional support for these processes (such as methylation, sulphation and glutathione and amino acid conjugation).

**Elimination support:** Once the liver has transformed these toxins into water-soluble chemicals, they are ready for excretion by the kidneys, intestines, and skin. For this phase, adequate hydration, good amounts of fibre and bowel movements and sweating (through exercise or sauna use), are all important.

**Essential Features of the Detox Food Plan:**

- Reduces food triggers for allergy and autoimmunity and provides targeted nutrients to support detoxification and elimination pathways.
- Supports liver function with high-quality protein.
- Lowers the body burden and reduces incoming toxicant exposure by focusing on 'clean' and organic foods.
- Is high in phytonutrients for optimizing gut, liver, and kidney function.
- Provides targeted antioxidants to support liver detoxification enzymes and biotransformation of toxins.
- Encourages healthy elimination of toxins via the stool and urine by ensuring adequate fluid and fibre intake.
- Helps to balance hormone metabolism

**The Therapeutic Foods:**

**Fat and Oils**

**Avocado:** Avocados are full of healthy dietary fibre, monounsaturated fat, and phytosterols that help with healthy function of the intestines and immune system.

**Coconut:** Coconut oil contains medium-chain triglycerides that can provide energy sources to the gut and liver, particularly when undergoing a metabolic detoxification.

**Flax:** Flax oil is great source of Vegan Omega 3 which helps to reduce inflammation**,** Lignans in flaxseeds and sesame seeds are especially important in hormone metabolism.

**Olive** (extra virgin oil is preferred): Olives make great nutritious snacks and the oil is very versatile for moderate heat cooking, dressings, drizzles and blending into soups to add nutritional value.

**Rice bran:** Has a very high smoke point can be used safely for high heat cooking and frying.

**Sesame:** Lignans in sesame seeds are especially important in hormone metabolism and can be added at the end of cooking to flavour stir-fries and Asian-style salad dressings.

**Nuts & Seeds**

Great for snacking throughout the day, these can also be sprinkled on top of salads, yoghurt and fruit, or vegetables. Compelling data supports eating a handful of nuts each day to reduce chronic disease risk. They provide anti-inflammatory oils, quality protein, and phytonutrient compounds which support ongoing detoxification. Aim for a mixed blend of raw unsalted nuts (not peanuts) that aren't heavily roasted.

**Seeds:** Try adding chia seeds or ground flaxseeds to a salad or a smoothie (great for helping constipation).

**Nut and seed butters:** Tahini drizzled over vegetables and in dressings, almond butter on an apple slice, or cashew nut butter on a sliver of pear.

**Protein Sources**

Amino acids (the building blocks of protein) are essential to detoxification and help to bind the transformed toxins in the liver so they can be carried out of the body. Regular protein also helps stabilize blood sugar, and to minimize hunger and cravings. Try to include some protein in every meal for ongoing detox support.

**Plant-Based:** Vegetarians can choose protein from soy (preferably non GM and fermented where tolerated), grains (such as rice and oats), legumes (peas, beans and lentils) as well as nuts and seeds.

**Legumes** are a perfect way to get quality dietary protein and fibre, both of which help with detox in the liver and elimination from the body through the gut. Try to eat at least one serving of legumes every day in the form of soup, cooked beans, dips, or hummus. Legumes make a wonderful complement to brown rice or quinoa, or to a non-starchy vegetable. Try pinto beans in soup, add chickpeas or kidney beans to a salad, or make a salad of 2–3 different beans with chopped onion and pepper.

**Best Proteins for Methylation support:**

Proteins that contain high amounts of methionine, such as brazil nuts provide important amino acids for the 'methylation process', which is an essential step in the elimination of many toxins. Adding a Plant based protein powder will also help with this.

### Dairy alternatives

Dairy is not listed on this plan because most commercially available dairy foods are contaminated with toxins and hormones. Additionally, dairy is a food trigger for many and a culprit in gastrointestinal symptoms related to 'leaky gut'.

There are several dairy alternatives on this food plan, mostly in the form of nut and grain milks. When buying dairy substitutes like coconut, almond, hemp or oat milk read the label carefully to ensure there are no added sweeteners. Unsweetened coconut kefir is also highlighted for its prebiotic and probiotic content, which may help improve gut health and toxin removal.

Rice milk is not recommended due to the potential for contamination with arsenic (found naturally in the water rice is grown in in many parts of the world).

### Non-Starchy Vegetables

The greatest variety of foods for detoxification is found in the non-starchy vegetables category. Vegetables are an important complement to protein as they provide necessary phytonutrients for detoxification. The goal is at least **8 to 10 servings every day**, to provide benefits for liver detoxification and elimination of toxins from the gut.

To optimize dietary fibre intake, 10 or more servings per day would be best. The non-starchy vegetables are divided into four most important categories on the Detox Food Plan:

- **Brassicas / Cruciferous veggies** including: pak choi, broccoli, cabbage, cauliflower, Brussels sprouts, horseradish, kale, kohlrabi, mustard leaves, radish, turnips, watercress.
- **Detoxifying Leafy Greens:** spinach, rocket, lettuce leaves, spring greens
- **Sulphur-containing veggies:** garlic, Jerusalem artichokes, asparagus, dandelion greens, chives, leeks, onions, scallions, shallots.
- **Liver & Kidney Support:** apples, beetroot, broccoli, Brussels sprouts, cabbage, caraway seeds, carrots.

**Brightly coloured Phytonutrients:**

While green non-starchy vegetables are essential for detoxification, it is important to also 'eat a rainbow' of colours every day. In addition to healthy greens, red beets, peppers, and radishes; orange carrots, yams, sweet potatoes, peppers and winter squash; yellow summer squash and peppers; and white onions and garlic should be consumed regularly.

**How to eat them?**

The best way to eat lots of vegetables daily is to include them in at least two meals. For example, have some leftover broccoli or stir-fried vegetables with a morning meal, then a hearty vegetable soup or a salad for lunch that contains several servings of both raw and cooked vegetables.

Include fruit and be sure to add olive oil, avocado, or nuts to salads. Routinely integrating a small dinner salad plus including more cooked vegetables with dinner can help you include enough servings each day. Choose seasonal ingredients. For example, try a cabbage salad in the winter, when highly nutritious cabbage is abundant.

Those who prefer to make a juice from these vegetables should use a blender or extractor that keeps the fibre and particulates in rather than just squeezing out the juice. Do not store fresh juices too long as they will oxidize and turn colour, a sign that their nutrient levels are less than when originally extracted. Tinned vegetables are not advised on a Detox Food Plan; however, both fresh and frozen vegetables are recommended.

### Starchy Vegetables

Starchy vegetables are also included on the Detox Food Plan. It is best to eat these vegetables with a protein- and/or fat-containing meal to prevent blood sugar spikes that can occur from eating a starchy

vegetable alone. Some root vegetables (beetroot and celeriac) are highlighted as therapeutic detoxifying foods.

- Beetroot are especially good because of their betaine content, found to be an important nutrient for the methylation phase of detoxification.
- Other starchy vegetables include sweet potato, carrot, pumpkin and squash parsnips and turnips.

**Fruits**

Phytonutrient-dense fruits can be helpful for detoxification because of the antioxidant protection they offer. Some specific fruits provide targeted nutrients for liver detoxification. In general, fruits can be helpful when the need for something sweet arises. It's typically better to couple eating fruit with a little bit of protein to offset any potential blood sugar spikes.

- Apple, blackberries, blueberries, cherries, grapefruit, mandarins, oranges, pineapple, pomegranate seeds, raspberries, strawberries, and tangerines are highlighted as therapeutic foods due to their role in supporting the enzymatic detoxification process.
- Mandarins, oranges, and pomegranate seeds are specially recommended because of their well-known roles in detoxification.
- Please note, grapefruit, may be contraindicated while taking certain drugs as they contain compounds that may either inhibit or accelerate enzymes that metabolize these drugs.

**Grains**

As with dairy, gluten is not included on this food plan. Certified gluten-free (GF) whole grains, or those with an intact bran outer coat, provide an excellent source of dietary fibre to assist with detoxification.

- Buckwheat, oats, and quinoa are highlighted as foods that add dietary fibre (and in the case of quinoa, a bit of extra protein) for enhanced gut elimination and detoxification.

**Specific foods for Liver support**

Foods especially suited to supporting both Phase I and Phase II detoxification include:

- Veggies: Cruciferous vegetables, garlic, onions, artichoke hearts,
- Fruits: Pomegranate, citrus fruits, berries,
- Herbs and spices: Green tea, Turmeric, ginger, parsley.
- High-quality, lean protein is a must for facilitating phase II conjugation.

**Balancing Sex Hormone Metabolism**

Detoxification may be helpful for individuals who have imbalanced levels of sex hormones such as oestrogen, testosterone, and progesterone. In fact, premenstrual syndrome (PMS), peri-menopausal symptoms, and even oestrogen-responsive cancers like breast, ovarian, and prostate cancer may be related to the body's ability to adequately metabolize, these hormones into other forms that prepare them to be excreted from the body.

Sex hormones such as oestrogen must go through the same liver pathways as many toxins do before being excreted from the body. When oestrogen metabolism is unhealthy, (resulting in abnormal levels of certain oestrogen metabolites), many symptoms of hormonal imbalance may occur.

Here are the six main steps for keeping the body healthy through proper oestrogen metabolism:

- **Decrease conversion of testosterone to oestrogen** (aromatization) with phytonutrients: Fermented soy isoflavones, Green tea catechins, pomegranate, liquorice flavonoids, resveratrol (from grapes and red wine), hops, flax seeds/oils and grapeseed extract.
- **Reduce exposure to xenoestrogens** (such as plastics) in your food chain, which can act to stimulate oestrogen receptors at very low levels. Get a glass or metal flask to carry your water.
- **Reduce body weight** to reduce the production of excessive hormones in fat cells
- Increase consumption of cruciferous vegetables, flax seeds, soy isoflavones, omega-3 fatty acids from fish and plant sources.
- **Increase levels of antioxidants** by eating colourful, nutrient-dense plant foods

- **Eat foods rich in folate** (Vitamin B9): dried beans, lentils, split peas, almonds, sweet potatoes, spinach, beetroot, Brussels sprouts, broccoli, cauliflower, kale, cabbage, bok choi, asparagus, bananas, oranges, peaches.
- **Eat B12-rich foods:** Yeast extract
- **Eat B6-rich foods:** sweet potatoes, potatoes, sunflower seeds, spinach, bananas.
- **Eat foods rich in methionine:** sesame seeds, Brazil nuts, chickpea, almonds, pinto beans, lentils, brown rice.
- **Encourage excretion and elimination in the stool:** Plenty of filtered water, chia and Flax seeds help constipation
- **To stimulate bile flow:** Dandelions, bitter greens, dark leafy greens, celery, daikon radish,

**Avoiding Environmental Toxins**

Toxins are everywhere: in food, air, water, and even in personal care products. It is best to start a metabolic detoxification program by first removing toxicants from one's food and drink supply as much as possible. Buying organically grown food helps to ensure a minimal intake of pesticides, herbicides, and insecticides.

Ways to minimize intake of harmful substances:

1. Buy organic vegetables or peel off the skin or remove the outer layer of leaves of some produce (e.g., lettuce, cabbage).
2. Remove surface pesticide residues, waxes, fungicides, and fertilizers by soaking the food in a mild solution of additive-free soap.
3. Cut away any damaged or bruised areas before preparing or eating food.
4. Wash produce before peeling it so dirt and contaminants aren't transferred from the knife onto the fruit or vegetable.
5. Do not buy foods that contain preservatives such as BHT, BHA, benzoate, and sulphites or food colourings or artificial sweeteners such as sucralose and aspartame.
6. Limit exposure to canned foods (e.g., meat, fish) and plastic bottles/containers of water and high-acid foods due to the presence of toxins like bisphenol-A and other plasticizers (that have been shown to disrupt the endocrine gland function).
7. Cook using non-toxic pans, skillets, and pots that aren't worn or scuffed so as to minimize any release of problematic compounds while cooking.
8. Ensure that drinking and cooking water is filtered. Consider putting a filter on the shower head.

**The 2019 Dirty Dozen / Clean Fifteen**

Pesticides used in agriculture can often leave detectable traces of chemicals in, or on, our food known as 'residues'. The residues detected on a food item will depend on which pesticides have been used and how persistent they are or, put another way, how long they take to decompose.

Driven by health concerns, the government monitors residue levels in food consumed in the UK. Pesticide Action Network UK, has analysed and compiled the most recent five years of government data and turned it into a handy list you can stick on your fridge or in your back pocket when you go shopping. A fully organic diet can be difficult and expensive to achieve but their 'Dirty Dozen and Clean Fifteen' list can help you to work out which produce to prioritise. You can download their handy fridge chart here: https://www.pan-uk.org/site/wp-content/uploads/Pesticides-in-our-food-multiple-residues-June-2019-1.pdf

They also have a great guide to Gardening without Pesticides

**The worst offenders include:**

1. Grapefruit
2. Oranges
3. Lemons and Limes
4. Strawberries
5. Pears
6. Grapes
7. Cherries
8. Peaches
9. Parsnips
10. Asparagus
11. Apples
12. Apricots

**The 'Clean Fifteen'** is a list of conventionally grown produce least likely to contain pesticide residues, and this includes:

1. Beetroot
2. Corn (On the Cob)
3. Mushrooms
4. Figs
5. Rhubarb
6. Swede
7. Turnips
8. Onions
9. Avocado
10. Cauliflower
11. Radish
12. Sweet Potatoes
13. Broad beans
14. Leeks
15. Pumpkin and squashes

**Resources-**

Detox Kitchen Cookbooks by Lily Simpson and Rob Hobson

- 'The Detox Kitchen Vegetables' (Vegetarian version)

Vegan Cookbook from Saskia Gregson Williams

- 'Naturally Sassy'