
21-Day Nutritional Detoxification Programme

Reduce your toxic exposure and kick-start detoxification

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Why Detox?

A wealth of research has shown that a variety of important health problems are linked to the industrial, man-made chemicals (toxins) that pollute our environment and our bodies. In fact everyone is chemically contaminated when tested, and these toxins can accumulate and concentrate in your body over time.¹ Even at very low levels of exposure environmental toxins have been associated with important health effects.²

Your body can naturally detoxify and eliminate toxins however this ability may be compromised due to a variety of factors including processed food, exposure to environmental pollution, tobacco, and alcohol. Many different nutrients are needed to help turn toxic substances into harmless by-products so you can eliminate them, and certain foods can enhance detoxification, which makes optimal nutrition very important.³

This 21-day Nutritional Detoxification Program is specifically designed to help you reduce your toxic exposure while optimising detoxification through nutrition.

The program is very safe, and while you may experience some fluctuations in your mood, energy and digestion over the first few days, you are most likely to notice a steady increase in vitality, general wellbeing and health. If you are on medication check with your doctor first as the programme may improve your liver metabolism. Before starting, fill in the MSQ Detoxification Questionnaire (on page 9).

Your 21-Day Programme

Your 21-day Nutritional Detoxification Program is based on 3 simple principles:

1. Cleansing Organic Foods - Page 3.
2. Green & Clean Lifestyle Changes - Page 6.
3. Supportive Natural Supplements - Page 7.

¹ Wong MH, Armour MA, Naidu R, Man M. Persistent toxic substances: sources, fates and effects. Rev Environ Health. 2012;27(4):207-13.

² Schug TT, Janesick A, Blumberg B, Heindel JJ. Endocrine disrupting chemicals and disease susceptibility. J Steroid Biochem Mol Biol. 2011 Nov;127(3-5):204-15.

³ Genuis SJ. Elimination of persistent toxicants from the human body. Hum Exp Toxicol. 2011 Jan;30(1):3-18.

1. Cleansing Organic Foods

During your program it is important to decrease intake of foods that may impair detoxification and increase foods that support the process. Your food plan also minimises exposure to toxins by emphasising organic foods. Gluten containing grains, lactose containing dairy foods and other common problem foods such as additives and sweeteners are also avoided.

The following shopping list, example meal plan and dietary tips will help with your food choices and meal planning.

DETOX DIET TIPS:

- Buy certified organic foods as organic farming reduces the pollution of your food, and our environment, with toxic chemicals.⁴
- Make sure you buy the “dirty dozen” most toxic fruits and vegetables as organic produce. These are peaches, apples, celery, blueberries, kale, nectarines, strawberries, cherries, imported grapes, spinach, lettuce, and potatoes.⁵
- Fatty fish, meat and milk products should be bought as organic produce as a priority as toxic chemicals accumulate in animal fats making these foods the major dietary source of exposure.⁶
- Do not eat any farmed or Atlantic salmon because of the high toxin levels.⁷
- Avoid fish with the highest high mercury content; shark, swordfish, king mackerel, tuna, and marlin.⁸
- Consume raw or lightly steamed brassica vegetables daily (cabbage, collard greens, cauliflower, broccoli, Brussels sprouts, kale) as they enhance the activity of your detoxification enzymes.⁹

⁴ Lu C, Barr DB, Pearson MA, Waller LA. Dietary intake and its contribution to longitudinal organophosphorus pesticide exposure in urban/suburban children. *Environ Health Perspect.* 2008 Apr;116(4):537-42.

⁵ The Environmental Working Group <http://www.ewg.org/foodnews>

⁶ Carpenter DO. Polychlorinated biphenyls (PCBs): routes of exposure and effects on human health. *Rev Environ Health* 2006;21:1e23.

⁷ Ibrahim MM, Fjaere E, Lock EJ, et al. Chronic consumption of farmed salmon containing persistent organic pollutants causes insulin resistance and obesity in mice. *Plos One* 2011;6(9):e25170.

⁸ Consumer Guide to Mercury in Fish; <http://www.nrdc.org/health/effects/mercury/guide.asp>

⁹ Navarro SL, Li F, Lampe JW. Mechanisms of action of isothiocyanates in cancer chemoprevention: an update. *Food Funct.* 2011 Oct;2(10):579-87.

- Increase your daily intake of green leafy vegetables like spinach and kale as the green pigment chlorophyll aids detoxification.¹⁰
- Avoid foods in plastic packaging and cans as toxins from artificial packaging can contaminate your food.¹¹
- Drink filtered water from glass or BPA-free bottles and aim to drink 1.5 to 2 litres of filtered water or herbal teas a day.¹²

FOOD CHOICES AND SHOPPING LIST:

Food group	Enjoy foods	Avoid foods
Vegetables	All vegetables including; Avocado, Asparagus, Bean sprouts, Broccoli, Brussels Sprouts, Cabbage, Carrots, Cauliflower, Celery, Courgettes, Cucumbers, Aubergine, Garlic, Green beans, Lettuce, Leeks, Mushrooms, Onions, Peas, Peppers, Pumpkin, Rocket, Salad greens, Spinach, Sprouts, Squash, String Beans, Sweet Potato, Tomatoes, Watercress.	Potato.
Fruit	All fresh vegetables including; Apples, Apricots, Blackberries, Blueberries, Cherries, Grapefruit, Kiwi Fruit, Lemons, Limes, Melon, Oranges, Peaches, Plums. Raspberries, Strawberries.	Canned fruits. Dried fruits.
Nuts and seeds	Almonds, Brazil nuts, Cashews, Coconuts, Coconut Milk, Flax/ Linseed, Hazelnuts, Macadamias, Pepitas, Peanuts, Pine nuts, Sesame seeds, Sunflower, Walnuts.	Salted, Flavoured and Sugar coated nuts.
Meats, Seafood and Eggs	Free-range; Eggs, Chicken, turkey and lamb. Cold-water fish such as Alaskan salmon, sardines, mackerel, and halibut.	Beef, pork, veal and processed meats such as Salami, Spam and Sandwich meats. Shellfish.
Vegetable oils	All cold-pressed vegetable oils including Olive, Coconut, Sesame, Walnut and Flax seed (linseed) oils.	Any oil that is not cold-pressed. Sunflower, safflower and mixed vegetable oil.

¹⁰ Morita K, Ogata M, Hasegawa T. Chlorophyll derived from Chlorella inhibits dioxin absorption from the gastrointestinal tract and accelerates dioxin excretion in rats. *Environ Health Perspect.* 2001 Mar;109(3):289-94.

¹¹ Rudel RA, Gray JM, Engel CL, et al. Food packaging and bisphenol A and bis(2-ethylhexyl) phthalate exposure: findings from a dietary intervention. *Environ Health Perspect.* 2011 Jul;119(7):914-20.

¹² Carwile JL, Luu HT, Bassett LS, et al. Polycarbonate bottle use and urinary bisphenol A concentrations. *Environ Health Perspect.* 2009 Sep;117(9):1368-72.

Food group	Enjoy foods	Avoid foods
Condiments and sauces	All herbs, seasonings and spices. Curry paste, Coconut milk, Egg/ Traditional mayonnaise, Hummus, Herb infused oils, Horseradish, Hot pickles, Hot chilli sauce, Lemon juice, Lemon pepper, Lime juice, Mustard, Olives, Pesto, Salad dressing (no added sugar), Soy sauce, Tahini, Vinegar, Wasabi.	Table salt, Sauces and condiments with added sugars and additives such as Sweet Chilli, Tomato and BBQ sauce.
Beverages	Filtered water. Green tea. All herbal teas including Peppermint, Chamomile, Fennel, Rooibos and Rosehip. Soda water. Fresh fruit and vegetable juices.	Alcohol, Black Tea, Coffee, Cordials, Soft drinks, Sweetened fruit juice.
Dairy, dairy alternatives	Rice milk, soy milk, rice milk, coconut milk and almond milk. Natural unsweetened yoghurt, hard cheese, butter.	All dairy products including ice cream, milk, sweetened yoghurt, soft cheese.
Soy foods	Soy milk, Miso, Tofu and Tempeh.	Soy yoghurt, Soy protein, Sweetened soy milk.

EXAMPLE MEAL PLAN:

Breakfast	Green Detox Smoothie: Rice protein with banana, apple, spinach and ground flaxseed.	Fresh fruit salad with natural unsweetened yoghurt.	Red pepper omelette and sautéed kale.	Gluten-free whole grain cereal and rice milk with fresh berries.
Lunch	Fresh garden salad with leafy greens, vinaigrette and nuts and/ or seeds.	Chicken and vegetable stir-fry with Asian greens, bean sprouts and fresh green herbs.	Gluten free wrap with turkey, cranberry and watercres.	Kale and root vegetable soup seasoned with seaweed.
Dinner	Roast lamb and baked root vegetables with salad greens.	Thai green vegetable curry with brown rice.	Grilled Alaskan salmon with rocket and cherry tomato salad.	Green pesto with roasted pine nuts and gluten free pasta.



2. Green & Clean Lifestyle Changes

During the programme it will help to avoid environmental pollutants in your home, this will also help you reduce your exposure in the long-term.

CLEAN & GREEN TIPS:

- Avoid exposure to the following: pesticides and herbicides, paints, solvents, and air pollution from cigarette smoke, car exhaust and factories.
- Replace your home cleaning products with unscented, low-allergy, cleaning products.
- Avoid air fresheners and use a natural essential oil burners or candles instead.
- Replace cosmetics and antiperspirants containing aluminium or alum salts with organic, natural beauty and body care products.
- Do not wear shoes indoors as they carry pollution from outside into your home.
- Keep houseplants, especially the Peace lily, as they help to filter and purify indoor air.¹³
- Consider buying an air purifier for your bedroom as household dust and air is a major source of exposure to toxic pollutants.¹⁴



¹³ Wolverton, B. C. and J. D. Wolverton. Plants and soil microorganisms: removal of formaldehyde, xylene, and ammonia from the indoor environment. Journal of the Mississippi Academy of Sciences. 1993, 38(2), 11-15.

¹⁴Whitehead T, Metayer C, Buffler P, Rappaport SM. Estimating exposures to indoor contaminants using residential dust. J Expo Sci Environ Epidemiol. 2011 Nov-Dec;21(6):549-64

3. Supportive Natural Supplements

To support your detox there are some natural supplements that you may like to use to help enhance your ability to detoxify and clear pollutants from your body.

Protein powder; 2 heaped tablespoons of a good whey or rice protein added to a smoothie daily – the high quality protein helps to support your livers ability to eliminate toxins.¹⁵

N-acetyl-cysteine; 1500-1800 mg daily - increases glutathione, an important natural antioxidant and detoxifier.¹⁶

Probiotic; 1 capsule daily – to support gastrointestinal health and elimination.¹⁷

Rice bran fibre; 1 tablespoon in water or juice after meals – shown to help bind and eliminate toxins.¹⁸

Green super foods; 1 teaspoon or 5 grams of a green food such as Chlorella or Spirulina daily – they reduce absorption of toxins and help with the elimination of stored chemicals from your body.¹⁹

Milk thistle (*Silybum marianum*); 200-400 mg equivalent of Silymarin, the active phytonutrients in Milk thistle, daily – supports and protects your liver.²⁰

Multivitamin and mineral; 1 dose each day – to ensure optimal intake of the many different micronutrients required for the metabolism and elimination of toxins.²¹



¹⁵ Bounous G. Whey protein concentrate (WPC) and glutathione modulation in cancer treatment. *Anticancer Res.* 2000 Nov-Dec;20(6C):4785-92.

¹⁶ Roes EM, Raijmakers MT, Peters WH, Steegers EA. Effects of oral N-acetylcysteine on plasma homocysteine and whole blood glutathione levels in healthy, non-pregnant women. *Clin Chem Lab Med.* 2002 May;40(5):496-8.

¹⁷ Sanders ME, Guarner F, Guerrant R, et al. An update on the use and investigation of probiotics in health and disease. *Gut.* 2013 May;62(5):787-96.

¹⁸ Nagayama J, Hirakawa H, Kajiwara J, et al. Excretion of causative PCDFs congeners of Yusho by one year intake of FBRA in patients with Yusho. *Fukuoka Igaku Zasshi.* 2007 May;98(5):215-21.

¹⁹ Sears ME, Genuis SJ. Environmental determinants of chronic disease and medical approaches: recognition, avoidance, supportive therapy, and detoxification. *J Environ Public Health.* 2012;2012:356798.

²⁰ Abenavoli L, Capasso R, Milic N, Capasso F. Milk thistle in liver diseases: past, present, future. *Phytother Res.* 2010 Oct;24(10):1423-32.

²¹ Liska D, Lyon M, Jones DS. Detoxification and biotransformational imbalances. *Explore (NY).* 2006 Mar;2(2):122-40.

What next?

Once you have finished the 21-days, fill in the MSQ Detoxification Questionnaire (on page 9) taking into account how you feel right now, and compare the results to before you started your detoxification programme.

After your cleanse you may want to continue the programme, which is great as it is safe to continue for as long as you like and will only help you minimise toxic exposure, detoxify your body and improve your health in the long-term. In fact, environmental toxins are hard to eliminate and effective detoxification can sometimes take several months. If you decide to stop, simply resume normal healthy eating and lifestyle practices.

If you think toxins are causing serious health problems you should seek the advice of a healthcare professional trained in environmental medicine.²² They can help identify whether or not toxins are the issue, coach you in individualised dietary and lifestyle changes, personalise your on-going care, and help with any questions or concerns.



²² Crinnion, W. Environmental Medicine. In; Pizzorno and Murray. Textbook of Natural Medicine, 4e. 2012.

MSQ Detoxification Questionnaire

Rate each of the following symptoms based on your current health symptoms.

Point Scale: **0**—Never or almost never have the symptom, **1**—Occasionally have it, effect is not severe, **2**—Occasionally have it, effect is severe, **3**—Frequently have it, effect is not severe, **4**—Frequently have it, effect is severe.

HEAD	_____ Headaches		DIGESTIVE	_____ Nausea, vomiting	
	_____ Faintness		TRACT	_____ Diarrhea	
	_____ Dizziness			_____ Constipation	
	_____ Insomnia	TOTAL _____		_____ Bloating feeling	
EYES	_____ Watery or itchy eyes			_____ Belching, passing gas	
	_____ Swollen, reddened or sticky eyelids			_____ Heartburn	
	_____ Bags or dark circles under eyes			_____ Intestinal/stomach pain	TOTAL _____
	_____ Blurred or tunnel vision	TOTAL _____	JOINTS/	_____ Pain or aches in joints	
EARS	_____ Itchy ears		MUSCLE	_____ Arthritis	
	_____ Earaches, ear infections			_____ Stiffness or limitation of movement	
	_____ Drainage from ear			_____ Feeling of weakness or tiredness	
	_____ Ringing in ears, hearing loss	TOTAL _____		_____ Pain or aches in muscles	TOTAL _____
NOSE	_____ Stuffy nose		WEIGHT	_____ Binge eating/drinking	
	_____ Sinus problems			_____ Craving certain foods	
	_____ Hay fever			_____ Excessive weight	
	_____ Sneezing attacks			_____ Water retention	
	_____ Excessive mucus formation	TOTAL _____		_____ Underweight	
MOUTH/	_____ Chronic coughing			_____ Compulsive eating	TOTAL _____
THROAT	_____ Gagging, frequent need to clear throat		ENERGY/	_____ Fatigue, sluggishness	
	_____ Sore throat, hoarseness, loss of voice		ACTIVITY	_____ Apathy, lethargy	
	_____ Swollen or discolored tongue, gums, lips			_____ Hyperactivity	
	_____ Canker sores	TOTAL _____		_____ Restlessness	TOTAL _____
SKIN	_____ Acne		MIND	_____ Poor memory	
	_____ Hives, rashes, dry skin			_____ Confusion, poor comprehension	
	_____ Hair loss			_____ Difficulty in making decisions	
	_____ Flushing, hot flashes			_____ Stuttering or stammering	
	_____ Excessive sweating	TOTAL _____		_____ Slurred speech	
HEART	_____ Chest pain			_____ Learning disabilities	
	_____ Irregular or skipped heartbeat			_____ Poor concentration	
	_____ Rapid or pounding heartbeat	TOTAL _____		_____ Poor physical coordination	TOTAL _____
LUNGS	_____ Chest congestion		EMOTIONS	_____ Mood swings	
	_____ Asthma, bronchitis			_____ Anxiety, fear, nervousness	
	_____ Shortness of breath			_____ Anger, irritability, aggressiveness	
	_____ Difficulty breathing	TOTAL _____		_____ Depression	TOTAL _____
			OTHER	_____ Frequent illness	
				_____ Frequent or urgent urination	
				_____ Genital itch or discharge	TOTAL _____
			GRAND TOTAL		TOTAL _____

Rating Scale: High >50; Moderate 15-49; Low <14.