

How To Complete a Home and Work Chemical-Clean up

Introduction

In order to have abundant energy, it is vital to clean up your external environment. External environmental stressors are like loads on a boat which will eventually cause the boat sink leading to low energy and ill health.





A two-year study involving five independent research laboratories in the United States, Canada and the Netherlands has found up to 232 toxic chemicals in the umbilical cord blood of 10 babies from racial and ethnic minority groups. In the face of unprecedented human exposure to toxins today, more

than ever we are going to need to know how to clean up our environment and detoxify if we want to optimize our health and lifespan.

Table of Common Chemicals

Chemical/Heavy Metal	Science paper-link	Environmental Sources
Mercury (organic and inorganic)	Link to chronic fatigue syndrome Link to autoimmune thyroiditis, multiple sclerosis, Lupus and eczema Infertility Immunity and brain Health issues due to amalgam fillings Autoimmune thyroiditis and amalgams Amalgams and Fibromyalgia	Non-organic fruit, veg and grains as they are often treated with mercury based fungicide, some vaccines, some contact lens solutions, Amalgam fillings, Some cosmetics (e.g. mascara), In air from fuel combustion, incineration and industrial processes, Contaminated seafood (highest in largest fish and some seafood) and rice, in the air from volcanic ash and burning of coal, thermometers and barometers, float valves, mercury switches, energy efficient light bulbs
Lead	Breast Cancer Immune hypersensitivity	Paints, Cosmetics, Hair colorings with lead-based pigments, Old plumbing, Lead, petrol, traffic pollution, Lead-glazed pottery, Mining and smelting
Cadmium	Breast Cancer Chronic Fatigue Syndrome Immune Hypersensitivity	Smoking, Passive smoke, Water, Fertilizer, Fungicides, Pesticides, Soil, air pollution, Refined grains, Shellfish, tuna, Liver, kidney, Wheat, Tomatoes and potatoes, Soft drinks, Rice, Coffee, Tea, Batteries
Arsenic	Bladder cancer, lung cancer, skin cancer, liver cancer, kidney cancer	Smelting of copper, zinc, and lead. Manufacturing of chemicals and glasses. By-product of pesticides production Water supplies worldwide, leading to exposure of shellfish, cod, and haddock. Paints. Rat poisoning, Fungicides Wood preservatives, foods contaminated by natural phenomenon e.g. volcanic eruptions affect chlorella, algae, fish oils etc
Nickel	Nickel allergy and chronic fatigue Allergy and Fatigue Breast Cancer	Used in industry in steel, nickel-cadmium batteries, nickel plating, some heating fuel and ceramics. Automobile exhaust, Cigarette smoke, Manufacturing emissions, Airborne dust, Coins, Hairpins, buttons, Jewellery, Prosthetic joints, Heart valves, Nickel plating, Hydrogenated fats and oils, refined

		and processed foods, Baking powder, Cocoa powder, super phosphate fertilizers, Tobacco smoke. Cooking utensils (including stainless steel): pots pans and cutlery/ silverware, Tinned foods
Aluminium	Reproductive disruption, bone toxicity, irritation and neurological Alzheimer's link	Acid rain leeches aluminium out of soil into drinking water, Aluminium cookware and foil, Earth's crust, denser in certain geographical areas, Antacids, Anti-perspirants, Foods additives
Aflatoxins (mould)	Link to liver cancer Immune system impact	Agricultural products peanuts and corn
Benzene ring compounds	Effects on neurobehaviour Neural Tube Defects Link to colour blindness	Petrol (gasoline), solvent in rubber and surface coating industries
Bisphenol A	Thyroid hormone disruption Link with heart disease Insulin function disruption Endocrine disruption Classified as carcinogenic by the International Agency for Research on cancer	Plastics, water bottles, food and beverage containers, cash register receipts (Thermal receipt paper)
Formaldehyde	Allergic contact dermatitis Antibodies and altered immunity	Preservative in cosmetics and personal care products, used in building materials (e.g. wood), automobile manufacture and particle boards
Isocyanate	Work-exposure and respiratory problems Antibodies and asthma Antibodies Link to Asthma	Foam, fibers, varnishes, paints elastomers in cars, building insulation and autobody repair, spray on protection for cement, wood, fibreglass, steel and aluminium
Parabens	Male hormone disrupting Effects on male reproductive system	Used in many personal care and beauty products and pharmaceutical drugs
Tetrabromobisphen ol A	Thyroid function disruption Cell membrane disruption	Electronic circuit boards and flame retardants used to spray on furniture, inside cars, curtains, carpets etc
Tetrachloroethylene	Congenital abnormalities Breast Cancer	Common drinking water contaminant, used is dry cleaning, and used in metal degreasing
Trimellitic Phthalic Anhydrides (phthalates)	Asthma and allergic conditions Infertility, obesity and allergies	Plastic softeners, personal care products
Sodium Lauryl sulphate	Irritation of the skin	Many home personal care products and cosmetics

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Nitrosamines	Oesophageal and gastric	Cosmetics, rubber products,
	cancer	pesticides. Nitrite preserved meat,
	Classified as probably	cheese and fish, beer, smoked fish,
	carcinogenic to humans by the	vegetables and meat, tobacco
	International Agency for	smoke
	Research on cancer	
Organophosphates	Classified as a possible human	Insecticides widely used in
	carcinogen by the US	agriculture, residential landscaping,
	Environmental protection	public recreation areas, and in
	agency	public health pest control programs
	ADHD and behavioural	such as mosquito eradication
	problems	·
	Alzheimer's	
	Reduced birth weight and	
	gestational age	
p-	Non-Hodgkin's lymphoma,	Hair dye used in rubber, black
phenylenediamine	multiple myeloma, acute	clothing, various inks, hair dye, dyed
,	leukemia, and bladder cancer	fur, dyed leather, and certain
	Throat irritation (pharynx and	photographic products
	larynx), bronchial asthma, and	h and the there
	sensitization dermatitis	
Azo	Azo dyes can break down into	dyes and pigments for textiles,
dyes/precursors	aromatic amines which have	paints, hair dye
, . ,	been linked to:	, , , , , , , , , , , , , , , , , , , ,
	Breast Cancer	
	Bladder Cancer	
Polybrominated	PBBs are classified as possibly	Flame retardants added to laptops,
biphenyls (PBBs)	carcinogenic to humans	electric circuit boards, sprayed on
and polychlorinated	PCBs are classified as human	textiles and upholstery
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bypnenyis (PCBs)	<u>carcinogens</u>	

5 Areas to Clean-Up

1. Minimize toxin exposure in food

General

- Eat an unprocessed and unrefined organic diet
- Avoid storing food in plastic containers,
 they contain toxic bisphenol A or phthalates
- Avoid tinned foods which can leach heavy metals into the food



Advice on Specific Food Groups

Grains

- Choose organic grains. Pesticides, herbicides and other toxins can be found in high concentrations in many non-organic grains.
- Choose whole unprocessed grains as they contain more nutrients than highly processed ones. Processed flours are also often bleached.



- Emphasize whole grains over breads; they are less refined and contain more nutrients
- Sprouting grains dramatically increases their nutrient value and makes them easier to digest. Soaking grains overnight also increases nutrient absorption and digestibility.

Red Meat

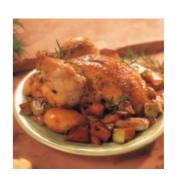
 Consider not eating red meat more than once per week, and always eat game or organic red meat as nonorganic versions can contain antibiotics and hormone residues



- If you eat red meat a good source of quality meat from game includes wild duck,
 wild boar, pheasant, elk and venison.
- Choose meats from grass-fed rather than grain-fed animals, as they are lower in saturated fats and higher in beneficial polyunsaturated fats.
- Avoid charring or burning the meat during the cooking, as this produces carcinogens.
- Minimize processed, cured and smoked red meats as these have been linked to cancer

Poultry

- Always buy organic or free range poultry.
- Commercially reared poultry tends to contain antibiotics, tranquilizers and hormones.
- Poultry is best purchased as whole birds rather than in parts, as this involves less processing.



Fish and Seafood

- Choose wild fish where possible as commercially grown fish tends to contain antibiotics, hormones, pesticides, dioxins, PCBs and TBTs.
- Avoid large fish such as shark, tuna and swordfish as
 these are high in mercury pollution. Snapper, crayfish,
 caviar, crab, halibut, grouper, mahi mahi, rockfish and lobster can also contain
 mercury toxicity.
- Avoid deep fried fish as they are more processed and high in bad trans fats.
- Use canned or tinned fish only occasionally. Tinned tuna is best avoided, as it tends to have high levels of pollutants. However, tinned wild Alaskan salmon, mackerel, herring and sardines (avoid those in low quality oils - tomato sauce/brine is better) may be less polluted.
- Generally eat smoked fish only occasionally as they contain higher levels of carcinogenic particles.

Vegetable and greens

 Buy fresh organic vegetables and avoid long storage as their nutritional value will diminish over time. Non-organic vegetables have often been sprayed with many pesticides and herbicides and intensive farming can also deplete their



nutrient levels.

- Fruits and vegetables highest in pesticides which are ONLY recommended to eat
 if organic are: broccoli, asparagus, green beans, lettuce, spinach, cucumber,
 celery, peppers (hot and bell), squash, tomatoes and vegetable juices
- Eat a proportion of your vegetables raw as cooking denatures many beneficial enzymes and reduces their nutrient value. Wash all vegetables before eating.
- Avoid storing vegetables in plastic wrapping—remove packaging after you have purchased them. Plastics can leach harmful substances into the vegetables.
- Avoid canned, preserved, salted, canned 100% fruit juices, sweetened or otherwise processed vegetables as they have lower nutrient value and often contain many additives.
- Ideally cook vegetables lightly, steaming them is best. You can juice these vegetables if you do not want to cook them, but have difficulty digesting them.

Fruit

 Always use fresh, organic fruit as much as possible. Pesticides and herbicides are often used in cultivating non-organic fruit. Wash all fruit before eating.



- Unless organic, do not eat strawberries, bananas,
 cantaloupe, apples, cherries, grapefruit, grapes, melon, peaches, raspberries,
 blueberries, kiwis, papaya and tangerines
- Avoid fruit juices, as these are high in sugar and do not have the beneficial fibre
 of a whole fruit. Limit dried fruit, as they are high in sugar.
- Note that fruit juices bought in cartons or bottles will always have been flashheated to kill bacteria for preservation purposes and are therefore less nutritious than those made fresh with a juicer. This also applies to vegetable juices.

Nuts and Seeds

 Choose fresh nuts and seeds. Avoid roasted, salted or otherwise processed nuts and seeds as the processing can alter the structure of the beneficial fats contained in them.



- To increase absorption, you can soak nuts overnight in water and grind them. This will get rid of enzyme inhibitors that can interfere with absorption.
 Sprouted seeds have the highest nutrition content.
- Avoid peanuts as they contain a substance called aflatoxin a toxic mould.
- Store nuts and seeds in airtight containers and refrigerate to ensure freshness.

Eggs

Choose free-range organic eggs and poach or soft boil them rather than fry as high heat alters the protein structure of the egg. Non-organic free range eggs contain less nutrients, have higher levels of toxins and hormones in them, and do not taste as good.



Fats and Oils

- Choose cold pressed organic oils. The processing of many non-organic oils damages the structure of the fats making them harmful to health.
- For cooking, use butter, ghee, palm oil, olive oil, or coconut
 oil. Do not use any other vegetable oils for cooking, as heating changes their chemical structure and creates free radicals. Limit fried foods as these also contain free radicals.

 Avoid all trans fats and hydrogenated fats, such as in margarines, many commercial biscuits and in deep fried foods, as these contain free radicals which are harmful to health.

Dairy

 Always buy organic dairy. Most toxins are fat-loving and will dissolve and accumulate in fat. As most dairy products contain relatively high amounts of fat, ensuring that they are highest possible quality is very important.



- Limit pasteurized milk as it lacks many beneficial enzymes. Unpasteurized dairy can be bought from your local farmer's market.
- Avoid margarines and other butter substitutes as they often contain harmful hydrogenated or trans fats.

Herbs, Spices, Seasonings and Sweeteners

- Avoid commercial table salt. Commercially processed salts tend to have many added chemicals. Use instead natural sea salt such as Malden's.
- Avoid sugar in all forms. Most forms of sugar are devoid of any nutrients.
- Use honey, molasses and carob sparingly for sweetness.
- Avoid artificial sweeteners such as Nutrasweet, Splenda, Saccharin and aspartame. Xylitol is a more natural low Glycemic load alternative sweetener.
- Be aware that most dressings and condiments (such as ketchup, thousand island dressing etc.) are high in sugar and additives and should be limited. Always read labels.
- Note most dried herbs are irradiated. Go for organic dried herbs where possible
 or even better, use organic fresh herbs rather than dried.

Beverages

the liver.

- Avoid carbonated soft drinks as they are high in sugar and often very acidic.
- Avoid caffeinated drinks (colas, tea, coffee and cocoa).
 Caffeine is dehydrating, causes blood sugar imbalances and often contain toxins. Drink water or herbal teas instead.
- and often contain toxins. Drink water or herbal teas instead.
 Limit your alcohol intake it is acidifying, imbalances blood sugar and is toxic to
- Avoid caffeine. Caffeine causes your body to release sugar from storage into your bloodstream, causing a rapid rise in blood sugar levels. Decaffeinated coffee is also best avoided, as it still contains other stimulants which cause the body to raise blood sugar again.
- Avoid beverages contained in plastic bottles. The plastic leaches toxic hormone disruptor bisphenol A into the liquid. Use glass water bottles where possible.

Legumes

- Choose dried beans and pulses in preference to canned ones. They don't have added salt and sugar and also work out to be cheaper.
- Buy organic legumes and non-genetically modified (in the USA most soy is now GM).
- Sprouting legumes increases their nutrient content and makes them easier to digest.
- To help avoid trouble digesting beans it is best to tenderize them. This means, after initially cooking them for 10 minutes at a high temperature, pour out the water and replace with new water. This takes out much of the indigestible fibre. Carry on cooking but add in some raw ginger or 3 inches of kombu seaweed. This also reduces the problems of indigestible fibre.



 Note potatoes are considered legumes, these are recommended to be eaten in moderate amounts as they are low in antioxidants and other nutrients, eating organic is also recommended where possible

2. Minimize exposure in water

Ensure you are drinking proper filtered water (Britta filters aren't enough), especially ensuring you are fluoride, chlorine and bromine-free as well as filtering out other common water contaminants including arsenic, lead and hormone disrupting chemicals.

It is best to have a water filter at home rather than constantly buying bottled water and getting exposure to Bisphenol A (BPA). Good under-the-sink and counter-top filters in the UK are sold at www.Freshwaterfilter.com and in the USA at www.propurusa.com

3. Minimize exposure in air

- VOCs are toxic gases at room temperature, "off-gasing" from paints, computers and electrical wiring –ensure your house is will-aired or purchase a filter device such as air purifiers see www.healthy-house.co.uk in the UK and www.allergybuyersclub.com in the USA for example products
- Never use home fragrance sprays or air fresheners (they are full of volatile organic compounds –VOCs including formaldehyde, camphor, ethanol, phenol, benzyl alcohol and petroleum based artificial fragrances) switch to natural sources like essential oils
- Other air freshening tips: for wardrobes you could use lavender and cedar bark freshens and deters moths, for rooms: consider plants such as spider plants absorb pollution, for tobacco smoke: burn candles or diffuse essential oils
- Control dust by regularly using a damp cloth on furniture as it will hold down dust better that a dry one, for curtains try vacuuming with small nozzle

4. Minimize exposure in personal hygiene products, cosmetics and creams

The Environmental Working Group (<u>www.ewg.org</u>) in the US have comprehensive database to check the safety of home products. As a summary:

- Pick fluoride-free toothpaste
- Pick aluminium-free deodorant
- Pick sodium-lauryl sulphate-free soaps and shampoos
- Pick perfume, hair spray, soaps and shampoo without phthalates
- Use natural sunblock containing zinc oxide or titanium oxide only avoid ones with benzophenone-3, octinotate, 3-benzylidene camphor, 3(4-methyl-benzylidene camphor,2-ethylhexyl 4-methoxy cinnamate, homosalate, 2-ethylhexyl 4-dimethylaminbenzoate, 4-aminobenzoic acid (PABA) oxybenzone or palmitate
- Pick creams free of parabens (also known as ethyl paraben, methyl paraben, butyl paraben, propyl paraben, benzyl paraben) and as natural as possible
- Choose cosmetics that are free of parabens and other toxins (e.g. most mascara contains mercury) good alternatives are www.lilylolo.co.uk and www.lilylolo.us
- Avoid hair dyes containing p-phenylenediamine (PPD), phthalates and ammonia

5. Minimize exposure in the home and from home cleaning products

Think how this applies to your office if you spend time in one as well:

- Check no mold/damp is building up in your house
- Use natural laundry detergent and softeners (e.g. Ecover or Seventh Generation) as many standard ones contain VOCs, for stains either use lemon juice and sunlight or rub with soda crystals and wash
- If you are nickel sensitive avoid all nickel and stainless steel pots, pans, cutlery (silverware), and nickel or stainless steel elements in kettles
- Don't store food or water in plastic containers or cellophane (due to BPA)
- Avoid using aluminium foil in cooking and wrapping food
- Where possible avoid foam in furniture containing polybrominated diphenyl ethers this is a flame retardant also sprayed on curtains, rugs, drapes, beds, car seats,

pajamas, TV and computer monitors – clean soft furnishing regularly - for mattresses and sofas: sprinkle with bicarbonate of soda leave and vacuum, cushions: take outside to air and beat out dust, pillow: as above and wash twice per year (check label), rugs: shake outside and beat regularly, carpets: sprinkle with bicarbonate of soda leave and vacuum (also helps odour)

- Avoid using strong pesticides and herbicides in your garden (there are no safe pesticides!)
- Switch to toxin-free natural home-cleaning products like Ecover and Seventh Generation, for walls and paintwork use an ecological cream cleaner and soft cloth, see below for more natural non-toxic substances for cleaning:

How to Clean with Non-Toxic Cleaning Products

Uses of Bicarbonate of Soda

- Stained tea and coffee cups,
 spoons and pots: soak in
 bicarbonate of soda
- Fridge: wipe inside with 1 tbsp bicarbonate of soda in hot water (also kills odours)
- To remove odours from footwear: sprinkle with bicarbonate of soda.
 Leave over night
- Toilets odours: add bicarbonate of soda to the water once per week



- Grout cleaning: Paste of baking powder and lemon juice and use a toothbrush
- Stubborn marks on sinks, taps, showers and baths: paste of baking soda and water or cream of tartar and lemon juice
- Heel marks on hard floors: rub with a damp cloth and bicarbonate of soda
- Pet bedding: sprinkle with bicarbonate of soda. Leave and shake out.

Uses of Distilled White Vinegar

- To remove limescale on taps, toilets, in kettles, plug holes unplated shower heads: rub with paste of distilled white vinegar and baking soda, can also leave on over night
- Microwave: To steam clean: distilled white vinegar & water. Full power 5 minutes. Wipe clean.
- Shower curtains, doors and tiles, windows, mirrors, ceramic tiles: wipe off mildew etc with distilled white vinegar
- To clean up pet/baby urine: spray with 3 parts SODA water and 1 part distilled white vinegar

Uses of Soda Crystals (sodium carbonate)

- Kitchen Ovens: hot water & soda crystals and washing up liquid
- Drains: once a month: kettle full boiling water over soda crystals removes soap and grease

Uses of Soap Flakes

- For Burnt pans ½ soap flakes in pan, add boiling water and when cold, wash up
- For lino flooring use soap flakes