

Reducing Exposures to Harmful Chemicals

Exposure to potentially harmful chemicals on a daily basis is virtually unavoidable. The majority of the 85,000 chemicals registered for production under the U.S. Toxic Substances Control Act (TSCA) were grandfathered in with little or no health and safety testing.¹ Medical conditions linked to toxic chemicals include obesity, metabolic syndrome, diabetes, cardiovascular disease, Alzheimer's and Parkinson's, cancers, and multisystem complaints such as fibromyalgia and multiple chemical sensitivities.²

Ten categories of toxic chemicals are known to be especially prevalent, persistent, and detrimental to human and environmental health:

1. heavy metals: lead (Pb), mercury (Hg), arsenic (As), cadmium (Cd), aluminum (Al)
2. polycyclic aromatic hydrocarbons (PAHs)
3. plastics (phthalates)
4. phenols, particularly bisphenol A (BPA)
5. organochloride pesticides (OCs)
6. organophosphate pesticides (OPs)
7. polychlorinated dibenzo-dioxin & furan (dioxins)
8. polychlorinated biphenyls (PCBs)
9. polybrominated diphenyl ethers (PBDEs)
10. polyfluorinated compounds (PFCs)

Reducing Dietary Exposures

1. Choose organic and low-fat or no-fat animal products such as dairy, eggs, meats (PAHs, OCs, OPs, dioxins, PCBs, PBDEs).
2. Choose cooking methods that are low-char and that allow animal fats to drip away, such as steaming (PAHs, OCs, OPs, dioxins, PCBs, PBDEs).
3. Consult local wildlife agencies before eating freshwater fish (PCBs, dioxins, PBDEs).
4. Never eat farmed salmon (PCBs), avoid eating larger carnivorous fish (Hg, PBDEs, PCBs) and use the Environmental

Working Group (EWG) Good Seafood Guide.³

5. Use glass, ceramic, or stainless steel containers for heating and storing hot food (phthalates).
6. Avoid plastic water bottles, travel mugs and bladder-style hydration reservoirs and do not wash plastic food or beverage containers under high heat (phthalates).
7. Avoid using vinyl cling wrap and only buy canned foods that are BPA-free (BPA).
8. Avoid high-fructose corn syrup and rice syrup (As) and processed foods containing BHT, BHA, benzoate, sulfites, and artificial colorings and sweeteners.
9. Choose local, seasonal, and organic produce whenever possible. Wash all fruits and vegetables using mild additive-free soap and clean water (OCs, OPs).
10. Choose organic versions of the EWG "Dirty Dozen" list of high-pesticide produce (OCs, OPs).⁴

Reducing Home & Office Exposures

1. Consult the EWG Drinking Water Database⁵ and consider testing your water supply. Use a NSF-certified water filter if indicated (Pb, As, Cd, trihalomethane, atrazine, benzene, etc.).
2. Clear water that has been standing overnight out of plumbing lines in your home or office by flushing the toilet or letting the tap run for several minutes before pouring out tap water for consumption (Pb, other metals).



3. Filter shower water (chlorine, OCs), and avoid using new vinyl shower curtains (phthalates).
4. Filter air in your bedroom and office using filters, ionizers or plants⁶ (airborne toxins).
5. Cover or replace older foam furniture and consider removing old carpets and padding (PBDEs).
6. Remove shoes you've worn outside when entering your home (OPs).
7. Clean up broken thermometers and fluorescent bulbs with gentle sweeping and wiping up with gloves and disposable materials. Do not vacuum (Hg).
8. Choose fragrance- and solvent-free detergents and cleaning agents (phthalates) and consult the EWG Guide to Healthy Cleaning.⁷
9. Avoid non-stick pots and pans and do not buy stain-resistant clothing, carpet or furniture (PCBs).
10. Avoid products made with particleboard or medium-density fiberboard (formaldehyde, solvents).
11. Remove or paint over older pressure-treated wood (As). Use low- or no-VOC (volatile organic compound) paints, glues, sealants, etc. in new construction (solvents).⁸
12. With new construction, consider "baking" out noxious fumes by vacating (people, plants and animals) and setting the house heat at maximum for 24-hour cycles followed by ventilation and rechecking for fumes (solvents and other toxic chemicals).

Reducing Health Care & Personal Care Exposures

1. For general wellness: Stay well hydrated and consume alcohol in moderation, if at all.
2. Avoid acetaminophen for pain relief (especially after alcohol), and avoid taking multiple over-the-counter and prescription drugs simultaneously.
3. Stop smoking and avoid second-hand smoke (Cd, PAHs).
4. Inquire about preservatives in flu shots and vaccines and chose ones without Thimerisol (Hg).
5. Choose unscented, fragrance-free personal care products (phthalates), avoid antiperspirants and antacids (Al), and use the EWG Cosmetics Database.⁹
6. Choose composite over metallic dental fillings and be sure that your dentist follows all of the recommended IAOMT¹⁰ procedures when removing silver fillings (Hg).
7. Avoid having two different metals (e.g., mercury and gold) in your mouth; this can create low-voltage electric currents, which accelerates metal degradation.

Reducing Work & Hobby Exposures

1. Identify your exposures by consulting MSDS data sheets for all chemicals you use (various toxins).
2. Wear and maintain all appropriate personal protective equipment and keep any work clothes that may have toxins on them separate from your home (various toxins).

References

1. U.S. Environmental Protection Agency: <http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/basic.html>
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3. Environmental Working Group: www.ewg.org/research/ewgs-good-seafood-guide
4. Environmental Working Group: <http://www.ewg.org/foodnews/list.php>
5. Environmental Working Group: <http://www.ewg.org/tap-water/>
6. Claudio L. Environ Health Perspect. 2011 Oct; 119(10): a426-a427. <http://ehp.niehs.nih.gov/119-a426/>
7. Environmental Working Group: <http://www.ewg.org/guides/cleaners>
8. U.S. Green Building Council's Green Home Guide: <http://greenhomeguide.com/>
9. Environmental Working Group: <http://www.ewg.org/skindeep/>
10. International Academy of Oral Medicine and Toxicology: <http://iaomt.org/safe-removal-amalgam-fillings>

