
Reducing Exposures to Harmful Chemicals

Daily exposure to potentially harmful chemicals 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

Linking Chemicals to Disease Risk

Medical conditions linked to toxic chemicals include obesity, metabolic syndrome, diabetes, cardiovascular disease, Alzheimer's, Parkinson's, cancers, and multisystem complaints such as fibromyalgia and multiple chemical sensitivity (MCS).²

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

1. Heavy metals, including lead (Pb), mercury (Hg), arsenic (As), cadmium (Cd), and aluminum (Al)
2. Polycyclic aromatic hydrocarbons (PAHs)
3. Plastics (phthalates)
4. Phenols, particularly bisphenol A (BPA)
5. Organochlorine pesticides (OCs)
6. Organophosphate pesticides (OPs)
7. Polychlorinated dibenzo-dioxins and furans (dioxins)
8. Polychlorinated biphenyls (PCBs)
9. Polybrominated diphenyl ethers (PBDEs)
10. Polyfluorinated compounds (PFCs)

Throughout this document, these and other toxins will be included in parentheses when discussing the places to watch out for these chemicals.

Reducing Dietary Exposures

- Choose organic and low-fat or no-fat animal products such as dairy, eggs, and meats (PAHs, OCs, OPs, dioxins, PCBs, PBDEs).
- Choose cooking methods that are low-char and that allow animal fats to drip away, such as steaming (PAHs, OCs, OPs, dioxins, PCBs, PBDEs).
- Consult local wildlife agencies before eating freshwater fish (PCBs, dioxins, PBDEs).

- Never eat farmed salmon (PCBs), avoid eating larger predatory fish (Hg, PBDEs, PCBs), and use the Environmental Working Group (EWG) Good Seafood Guide.³
- Use glass, ceramic, or stainless steel containers for heating and storing hot food (phthalates).
- Avoid plastic water bottles, travel mugs, and bladder-style hydration reservoirs, and do not wash plastic food or beverage containers under high heat (phthalates).
- Avoid using plastic wrap and only buy canned foods that are BPA-free (BPA).
- Avoid high-fructose corn syrup and rice syrup (As). Also, avoid processed foods with BHT, BHA, benzoate, sulfites, artificial colors, and artificial sweeteners.
- Choose local, seasonal, and organic produce when possible. Wash all fruits and vegetables using mild additive-free soap and clean water (OCs, OPs).
- Choose organic versions of the EWG “Dirty Dozen” list of high-pesticide produce (OCs, OPs).⁴

Reducing Home and Office Exposures

- Consult the EWG Drinking Water Database and consider testing your water supply.⁵ Use an NSF-certified water filter if indicated (Pb, As, Cd, trihalomethane, atrazine, benzene, etc.).
- Clear the water that has been standing overnight in plumbing lines in your home or office by flushing the toilet or letting the tap run for several minutes before getting tap water to drink (Pb, other metals).
- Filter shower water (chlorine, OCs), and avoid using new vinyl shower curtains (phthalates).
- Filter air in your bedroom and office using an air purifier (airborne toxins).⁶
- Cover or replace older foam furniture and consider removing old carpets and padding (PBDEs).
- When entering your home, remove shoes you’ve worn outside (OPs).
- Clean up broken thermometers and fluorescent bulbs with gentle sweeping and wiping with gloves and disposable materials. Do not vacuum (Hg).
- Choose fragrance- and solvent-free detergents and cleaning agents (phthalates) and consult the EWG’s Guide to Healthy Cleaning.⁷
- Avoid nonstick pots and pans, and do not buy stain-resistant clothing, carpet, or furniture (PCBs).
- Avoid products made with particleboard or medium-density fiberboard (formaldehyde, solvents).
- 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

- 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 Healthcare and Personal Care Exposures

- For general wellness, stay well-hydrated and consume alcohol in moderation, if at all.
- Avoid acetaminophen for pain relief (especially after alcohol), and avoid taking multiple over-the-counter and prescription drugs at the same time.
- Stop smoking and avoid second-hand smoke (Cd, PAHs).
- Ask about preservatives in flu shots and other vaccines. Choose ones without thimerosal (Hg).
- Choose unscented, fragrance-free personal care products (phthalates), avoid antiperspirants and antacids (Al), and use the EWG Cosmetics Database.⁹
- Choose composite over metallic dental fillings, and be sure your dentist follows all the recommended IAOMT procedures when removing silver fillings (Hg).¹⁰
- Avoid having two different metals (e.g., mercury and gold) in your mouth; this can create low-voltage electric currents, speeding up the breakdown of the metals.

Reducing Work and Hobby Exposures

- Identify your exposures by consulting the Material Safety Data Sheet (MSDS) for every chemical product you use (various toxins).
- Wear and maintain all appropriate personal protective equipment and keep any toxin-contaminated work clothes out of your home (various toxins).

REFERENCES

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