

Is Your Pet's Environment Truly Safe?

Discover the everyday items that pose the most significant threats to your pet's health, from hidden toxins in everyday household products to unexpected dangers in their daily routine.

STORY AT-A-GLANCE

- There are several toxic compounds in the environment that interfere with the function of endocrine system glands and hormones
- A few of the top 12 endocrine disruptors according to the Environmental Working Group include bisphenol A (BPA), phthalates, fire retardants, lead, mercury, and organophosphates
- As a pet parent, it's important to be aware of toxins in the environment and take steps to prevent or limit your animal companion's exposure
- Depending on your pet's toxin exposure level, it's a good idea to consider a detoxification protocol

Over the years, I've written several articles about the dangers to animals of toxic compounds in the environment, in particular those that interfere with the function of the endocrine system. The glands of the endocrine system include the hypothalamus, pituitary, pineal, **thyroid**, adrenal, thymus, pancreas, testicles and ovaries.

Endocrine disrupting chemicals (EDCs) can inhibit hormone processes in not only your pet's body, but yours as well. They can mimic or block hormones, interfere with hormone production and alter the body's sensitivity to hormones. They can also increase or decrease the body's production of certain hormones, act as hormones themselves, turn one type of hormone into another type, bind with hormones, and disrupt hormone signaling.¹

Since hormones act as messengers that transmit information to cells and maintain homeostasis in the body, it's easy to imagine the havoc and damage EDCs have the potential to create — especially when you consider that hormones regulate everything from metabolic functions to reproduction.

In 2013, the Environmental Working Group (EWG) published a list of the "dirty dozen" endocrine disruptors, which are the worst-of-the-worst in this category. They are:²

1. BPA
2. Dioxins
3. Atrazine
4. Phthalates
5. Perchlorate
6. Fire retardants
7. Lead

8. Arsenic
9. Mercury
10. Perfluorinated chemicals (PFCs)
11. Organophosphate pesticides
12. Glycol ethers

Let's take a quick look at each of these, and more importantly, discuss how to limit your pet's exposure to them.

BPA (Bisphenol A)

Bisphenol A is an industrial chemical found in a wide range of household products, including hard plastic water and baby bottles, consumer electronic and sports equipment, DVDs and CDs, medical and dental devices, eyeglass lenses, dental sealants and fillings and thermal paper, including store receipts. It's also found in the epoxy resins used as coatings inside food and drink cans.

BPA is able to imitate the body's hormones, especially estrogen, in ways that are damaging to the health of both humans and animals. For most animals, including humans, exposure to BPA occurs primarily through diet. A **2017 study** conducted by researchers at the University of Missouri concluded that even a short-term (two week) feeding of canned dog food results in a significant increase (three-fold) of BPA in dogs.³

To protect your family from BPA exposure, avoid canned foods and don't store food in #7 plastics (you can find a chart of plastic types **here**).

Dioxins

Dioxins are created during many industrial processes when chlorine or bromine are burned in the presence of carbon and oxygen. These environmental pollutants can disrupt the delicate signaling of both male and female sex hormones in the body.

Unfortunately, dioxins are found in much of the U.S. food supply. Factory-produced meat, fish, milk, eggs, and butter are the products most likely to be contaminated, so offer your pets (and yourself) as much organic food as possible. Also avoid feeding fish, since the majority of seafood these days is contaminated by toxic metals and industrial chemicals like dioxins.

Atrazine

Atrazine, a xenoestrogen, is an herbicide widely used on corn crops. Research shows this toxin has such a profound effect on sex hormone production that it turns male frogs into females and has also been linked to breast tumors and prostate inflammation in animals.⁴ To limit your pet's exposure to atrazine, feed an organic diet and filter your water.

Phthalates

Phthalates are chemicals found in PVC plastics, and leach from those plastics into food and the air. Studies have linked exposure to phthalates to hormone changes, low sperm counts, thyroid irregularities and premature cell death.

Some air fresheners, candles, incense and other air scenting contain phthalates. So do some children's toys, imported dog toys from China, nail polish and perfumes. When chemicals from these products are released into the air, the phthalates become airborne and can be inhaled into the lungs or absorbed through the skin, ending up in your pet's bloodstream.

You can protect your pet from exposure to phthalates by avoiding plastic food containers and plastic wrap made from PVC (a #3 plastic — see plastics link above).

Perchlorate

Perchlorate is a chemical in rocket fuel, explosives, fireworks, and road flares, and it somehow is found in much of our produce and milk. In the body, perchlorate interferes with iodine, which is important for healthy thyroid function, and can lead to thyroid hormone imbalances.

A water filter is the best way to reduce your family's exposure to perchlorate in your water source.

Flame Retardants

If you're a regular reader, you're probably aware that flame retardants — polybrominated diphenyl ethers (PBDEs) — are the pollutants I've written about most often. According to a 2019 study, PBDEs are linked to the steep rise in **feline hyperthyroidism**, now the most common endocrine-related disease in cats over the age of 10.⁵

In the mid-1970s, manufacturers began putting polybrominated diphenyl ethers (PBDEs) into certain household products, including:

- Polyurethane foam products — upholstered furniture, mattresses, pillows
- Carpet padding
- Kitchen appliances
- TVs and TV remote controls and video equipment
- Fans
- Blow dryers
- Water heaters
- Cell phones

PBDEs increase the temperature it takes to make these products burn making them more flame-resistant.

Unfortunately, the compounds leak from products as they heat up during use or when they begin to deteriorate. Since PBDEs are known endocrine and thyroid disruptors, it's no coincidence that widespread use of these chemicals occurred right before the first diagnoses of hyperthyroidism. To minimize your pet's exposure to these chemicals:

- Polyurethane foam products manufactured prior to 2005, such as upholstered furniture, mattresses, and pillows, are likely to contain PBDEs, so inspect them carefully and replace ripped covers and/or any foam that appears to be breaking down. Avoid reupholstering furniture yourself as the reupholstering process increases your risk of exposure. It's also a good idea to cover these pieces with an organic sheet, especially if your dog or cat spends time sitting or snoozing on them.

- Older carpet padding is another major source of PBDEs, so take precautions when removing old carpet. You'll want to isolate your work area from the rest of your house to avoid spreading it around and use a HEPA filter vacuum to clean up.
- You probably have older sources of the PBDEs known as Deca in your home as well, and these are so toxic they are banned in several states. Deca PBDEs can be found in electronics like TVs, cell phones, kitchen appliances, fans, toner cartridges, and more. It's a good idea to wash your hands after handling such items, especially before eating, and at the very least be sure you don't let infants or pets mouth any of these items (like your TV remote control or cell phone).
- Look for organic and "green" building materials, carpeting, pet items, baby items, and upholstery, which will be free from these toxic chemicals. Furniture products filled with cotton, wool, or polyester tend to be safer than chemical-treated foam; some products also state that they are "flame-retardant free."
- PBDEs are often found in household dust, so clean up with a HEPA-filter vacuum and/or a wet mop often.
- As you replace PBDE-containing items around your home, select those that contain naturally less flammable materials, such as leather, wool, and cotton. This is particularly important for items you or your pet sit or sleep on for many hours each day.

Lead and Arsenic

It's well-established that both these substances are toxic. Lead can damage almost every organ system in the body, along with disrupting hormones. Arsenic lurks in food and drinking water and along with its ability to cause cancer and death, it also interferes with hormones, specifically glucocorticoid system hormones.

To avoid exposure to lead, keep your home well-maintained. Since crumbling old paint is a significant source of lead, get rid of it carefully. A water filter can reduce exposure to lead in drinking water as well as arsenic.

Mercury

Mercury is a naturally occurring (not manmade) substance, but it's toxic, nonetheless. It's released into the air and the oceans primarily through burning coal. Seafood is the most common route of exposure for both people and pets. Studies have revealed high levels of mercury in both dog and cat food.

To limit your pet's exposure to mercury, my advice is to be very choosy about the fish you feed, and I certainly don't recommend feeding an exclusive diet of fish protein to dogs or cats. However, fish are a rich source of omega-3 fatty acids, which are essential to your pet's well-being. If you supplement with fish, I suggest using sardines packed in water. Sardines don't live long enough to store toxins in their bodies, and they're a terrific source of omega-3s.

Feeding wild caught salmon in rotation with other proteins is also an excellent way to get those omega-3s into your dog or cat. If you choose not to feed any fish, I recommend you supplement your pet's diet with **krill oil** or another omega-3 fatty acid.

It's also important not to cook your pet's food in nonstick pans. Use cast iron or stainless instead.

Perfluorinated Chemicals (PFCs)

PFCs are used to make non-stick cookware and are also found in certain textiles, leather, water-resistant apparel, rubber and plastic. To limit your family's exposure, avoid non-stick pans and clothing, furniture and carpet treated with water-resistant coatings.

Organophosphates

Organophosphate pesticides are linked to reproductive defects specifically involving testosterone, as well as thyroid hormones. Human exposure most often occurs from fruits and vegetables imported from other countries, whereas pets can be exposed through the use of certain **chemical pest repellent collars and pesticide sprays** in and around the home.

Limit exposure to organophosphates and all pesticides by buying organic produce. Use a safe, natural pest deterrent on dogs and cats. Also consider cedar oil (specifically manufactured for pet health), natural food-grade diatomaceous earth, or fresh garlic. Work with an integrative veterinarian to determine a safe amount for your pet's body weight.

Also bathe and brush your pet regularly and perform frequent full-body inspections to check for parasite activity and ensure your indoor and outdoor environments are unfriendly to pests.

Glycol Ethers

Glycol ethers are man-made chemicals used in solvents and stabilizers in a wide variety of personal, household, and industrial products, including degreasers, adhesives, cleaners, dyes, inks, water-based paints, lacquers, perfumes, and cosmetics. Aerosol ether products may be linked to allergies and asthma.

To prevent exposure, avoid products with ingredients such as 2-butoxyethanol (EGBE) and methoxydiglycol (DEGME). Go with **nontoxic, inexpensive cleaners** instead, go easy on the bleach and don't mix it with other cleaning products.

Does Your Pet Need a Detoxification Program?

Your pet's ability to clear accumulated toxins is based on the overall functioning of detoxification pathways. If those pathways aren't working as they should, detoxification systems become stressed or completely overwhelmed. Fortunately, there are many ways you can assist your pet's detoxification mechanisms to help them function optimally: **10 Top Ways to Help Your Pet Detox**.

Sources and References

¹ [Dr. Nasha, July 29, 2020](#)

² [Environmental Working Group, October 28, 2013 \(Archived\)](#).

³ [Science of the Total Environment, Volume 579, 1 February 2017, Pages 1804-1814](#)

⁴ [Hopenhayn-Rich, C. et al. Archives of Environmental Contamination and Toxicology, Volume 42, pp 127-136 \(2002\)](#).

⁵ [Environ. Sci. Technol. 201953159203-9213 Publication Date: July 10, 2019](#)
