

Off-Gassing Explained: Why New Plastic Smells and How to Avoid It

If you've ever opened a package and been hit with a strong "new plastic" smell, you've experienced off-gassing. For many people, it's just unpleasant—but for those with Multiple Chemical Sensitivity (MCS), it can trigger headaches, nausea, breathing difficulties, fatigue, or brain fog. Understanding what off-gassing is, where it comes from, and how to reduce exposure is an important step in creating a safer, low-toxin environment.

What is off-gassing?

Off-gassing refers to the release of volatile organic compounds (VOCs)—toxic gases emitted from certain solids or liquids—as they break down over time. These chemicals are commonly used to produce synthetic materials like plastic, vinyl, foam, and adhesives. The most intense off-gassing usually happens when the product is new, but some materials can continue releasing VOCs for months or even years.

Common Off-Gassing Culprits

The following items are notorious for releasing VOCs and triggering reactions in individuals with MCS:

- Perfumes, perfumed or scented products
- New plastic containers or packaging
- Synthetic furniture or mattresses (especially memory foam or vinyl)
- Shower curtains made from PVC
- Office chairs and electronics with plastic or flame-retardant coatings
- Plastic food wraps and storage containers
- New clothing or accessories made from polyester, nylon, or faux leather
- Home renovation materials (e.g., flooring, paints, cabinets, and adhesives)

Even “unscented” items may off-gas due to chemical treatments used in manufacturing, or if ‘masking’ agents are used to hide scents or other chemicals.

How to Minimize Exposure to Off-gassing?

Choose Low-Toxin and Lowest-Emission Alternatives

One of the most effective ways to reduce exposure to off-gassing is to choose the lowest-emission alternatives whenever possible. Replace plastic containers with glass, stainless steel, or untreated wood, which are more stable and less likely to emit harmful fumes. When it comes to textiles, opt for organic cotton or wool, which are typically free from synthetic coatings or chemical finishes. Avoid materials like vinyl, particleboard, or memory foam, which are major sources of VOCs unless specifically labelled as non-toxic or zero-VOC.

Off-Gas Items Before Bringing Them Indoors

If you do purchase new plastic or synthetic items, it is a healthy practice to off-gas them before bringing them into your home. Place items such as plastic containers, furniture, or new clothing outside in fresh air or in a well-ventilated space like a balcony, shed, or garage (make sure these spaces are free from mould and toxic chemicals such as those leaching from paint cans or other similar items). Leaving them in these areas for several days—or even weeks—can significantly reduce the strength of chemical odours. This simple step allows the VOCs to release into the open air*, rather than being trapped in your living space.

Improve Indoor Air Flow and Filtration

Support your indoor air quality by being mindful of your product choices, improving ventilation, and filtration. Try to open windows regularly to increase fresh airflow, especially after introducing any new products. HEPA air purifiers with activated carbon filters are particularly helpful in trapping VOCs and other airborne irritants. If tolerated, you might also consider introducing a few air-purifying plants, like spider plants or peace lilies.

Conclusion

Off-gassing may be invisible, but its impact is very real—especially for those living with Multiple Chemical Sensitivity. By making mindful choices about the materials we bring into our homes and allowing time and space for new items to air out, we can reduce our exposure and create healthier, more easy-to-breathe environments. Even small



ECO-JOURNAL

August 2025

changes, like switching to glass containers or airing out new clothes, can make a meaningful difference in daily comfort and well-being.

* Buying healthy products as far as possible and avoiding harmful ones is preferable to 'offgassing' - consider the burden on our environment from the off-gassing process. These aren't just personal preferences—they're solutions that protect everyone's health. Remember: there's no free lunch, and nature bats last.