

# Purge Plastics

Reduce your intake of potentially harmful chemicals by getting your food off its plastic dependency.

**LOOK AROUND YOUR KITCHEN.** If you are like most of us, you're likely to find plastic just about everywhere. In your cabinets, plastic food-storage containers and utensils. In your pantry, canned foods lined with plastic. In your fridge, plastic butter tubs and salad containers. Plastic is pervasive in our world, yet a variety of sources have confirmed the potential hazards of ingesting the chemicals that can leach from plastic products. Nowhere is that risk more direct than when the food we eat comes into direct contact with plastic. But don't panic. Although plastic is ubiquitous, learning a bit about the most dangerous types and replacing plastic with practical, easy-to-find alternatives will keep you and your family safe.

## KNOW YOUR PLASTICS

The first step toward increasing your food's safety is to understand the differences in plastic types. While the safest approach is to avoid the interaction of food and plastic whenever possible, at the very least, we want to make sure to avoid the plastics that studies reveal are the most hazardous. To determine what type of plastic you're dealing with, turn over any plastic container and look for the recycling code on the bottom. The plastics with the greatest potential for negative health effects are #3, polyvinyl chloride (PVC) and #7, polycarbonate (PC) or "other." Safer plastics for food storage include #2, high-density polyethylene (HDPE), the plastic used for opaque milk jugs and cereal box liners; #4, low-density

polyethylene (LDPE), the plastic used in plastic wrap and sandwich bags; and #5, polypropylene (PP), the plastic used in yogurt and margarine tubs.

PVC plastic is marked with recycling code #3. Often used in the plastic used to wrap meats and cheeses, "cling-wrap" style plastic wrap and cooking oil bottles, as well as toys, plumbing pipes and insulation, PVC is known as the "toxic plastic." The most potentially hazardous elements of PVC are the plasticizers used to help make the product flexible, notably phthalates and adipates. Traces of these chemicals are known to leach into foods stored in PVC. In animal studies, phthalates interfere with the production of male reproductive hormones, lower testosterone levels and decrease sperm counts. Exposure during fetal development can cause malformation of the male reproductive tract as well as cancer, according to the Natural Resources Defense Council (NRDC). To avoid PVC, ask your grocery-store butcher to cut meat and wrap it in paper. When choosing cheeses, opt for those in zip-closure-style bags rather than shrink-wrapped cheeses. If you use plastic wrap in your kitchen, make sure to buy those made of safer #4, or LDPE, plastic.

Plastic marked #7 fits into the broad category of "other," but the majority of it is polycarbonate (PC) or polylactide (PLA). PLA plastic is a compostable plastic, but PC plastic contains bisphenol-A (BPA), a potent endocrine disruptor that mimics estrogen in the body and has been linked in animal studies to health problems ranging from behavioral disorders and obesity to reproductive system damage



## 10 Plastic Safety Tips

Use these steps for a less-plastic lifestyle.

- 1 Never heat food in plastic containers. High heat releases chemicals from plastics into your food.
- 2 Always avoid the most hazardous plastics—those marked with recycling codes #3 and #7.
- 3 Do not reuse single-use plastic containers such as water bottles or clamshells.
- 4 Do not use baby bottles, children's sippy cups or other children's dishware made of plastic, particularly #7 plastic. Instead, choose glass, ceramic or stainless steel baby bottles and children's dishware.
- 5 Reduce your consumption of BPA-lined canned foods and beverages. Instead, opt for foods packaged in glass jars or cans not lined with BPA (such as those from Eden Organics).
- 6 Do not serve or store hot or fatty/oily foods in plastic containers, which can cause chemicals to leach more readily.
- 7 Choose reusable glass or stainless steel food-storage containers.
- 8 Avoid foods sold in plastic such as deli meats and cheeses. If you do purchase items packaged in plastic, transfer them to a glass or stainless steel container as soon as possible.
- 9 If you continue to use plastic, retire old containers. Plastics leach more chemicals over time as they are worn down.
- 10 If you are pregnant or nursing, remember that BPA is transferred from your blood to your baby's.



and increased cancer risk. BPA is ubiquitous in the United States. Up until recently, one of its most common uses here was in baby bottles and children's sippy cups, despite the fact that children's developing systems are more at risk for harm from this chemical than adult systems. But last July, the FDA banned the use of BPA in children's bottles and sippy cups. BPA is still found in the plastic lining of canned foods, where it is at high risk of leaching into foods—particularly those that are acidic or canned in liquid. Organic products don't necessarily contain less BPA than conventional canned foods. Eden Organics is one of few U.S. brands that offers canned goods in BPA-free cans.

Although PET or PETE plastic (polyethylene terephthalate, recycling code #1) is commonly used to create beverage containers and is generally considered safer than #3 or #7, it too may potentially leach chemicals. Studies have also found that reusing single-use PET bottles (standard plastic water bottles) can cause the plastic to break down and allow bacteria to build up in threads for the cap.

Plastic marked #6 is polystyrene (PS), more commonly known as Styrofoam. Its health impacts are not as severe as in #3 and #7, but do include eye, nose and throat irritation. More important, PS is a major contributor to marine pollution because it floats and can take up to 50 years to break down. It has also been shown to cause cancer in production workers.

### AVOIDING ALL PLASTICS

While eliminating the most harmful plastics from your life will go a long way toward reducing your chemical intake, recent studies support the case for avoiding plastic altogether whenever possible. Recent findings have concluded that many types of plastic can leach chemicals that have estrogenic activity, according to a study reported by the peer-reviewed journal *Environmental Health Perspectives* (EHP) published by the National Institute of Environmental Health Sciences. Chemicals with estrogenic activities have similar effects to BPA, among them obesity, damage to the reproductive system and increased cancer risk, particularly for fetal and juvenile mammals. In the study, researchers found that almost every commercially available plastic product they sampled—including those marked "BPA-free"—leached chemicals having detectable estrogenic activity. The study also concluded that "fetal, newborn and juvenile mammals are especially sensitive to very low (sometimes picomolar and nanomolar) doses of chemicals having estrogenic activity."

In addition to health concerns, there are environmental reasons to reduce our use of plastic. Although they have not been found to leach out of plastic products, dioxins (a class of chemical contaminants) are another extremely harmful element of plastic. Toxic even at low doses, dioxins are emitted into the atmosphere and waterways when plastics are manufactured and incinerated. In its most recent assessment in 2000, the EPA concluded that dioxins have the potential to cause an array of adverse health effects in humans and estimated that the average American's risk of contracting cancer from dioxin exposure may be as high as one in 1,000 (1,000 times higher than the government's "acceptable" standard of one in a million), according to the NRDC.

Finally, plastics are produced with petrochemicals and take hundreds of years to break down in the environment. For example, while a paper bag will decompose in about a month, a plastic bag takes 200 to 1,000 years.

—JESSICA KELLNER

## RESOURCES

**Anchor Hocking Company**  
anchorhocking.com  
glass food storage and cookware

**BottlesUp**  
bottlesupglass.com  
glass beverage bottles

**Coddlelife**  
coddleinc.com  
glass baby bottles

**Crate & Barrel**  
crateandbarrel.com  
glass, stainless steel and ceramic food storage

**Dr. Brown's Natural Flow**  
handi-craft.com  
glass baby bottles

**EcoCanisters**  
ecocanisters.com  
stainless steel food storage containers

**5 Phases**  
5phases.com  
BPA-free plastic baby bottles with glass insert

**The Glass Baby Bottle**  
theglassbabybottle.com  
nontoxic baby and kid food-storage supplies

**Klean Kanteen**  
kleankanteen.com  
stainless steel baby bottles and sippy cups

**lifefactory**  
lifefactory.com  
adult, kid and baby glass bottles in silicone sleeves

**Life Without Plastic**  
lifewithoutplastic.com  
retailer of non-plastic kitchen goods

**Pyrex**  
pyrexware.com  
glass food storage and cookware



WILDPLANETFOODS.COM

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\*as compared to conventional brands