Is That Plastic Container Safe?

By Diane Blahut, Woman's Day
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Our homes are full of plastic, and the kitchen is no exception. The problem: Chemicals in plastic containers and other kitchenware may leach into the foods or drinks that they’re holding. Scientific evidence suggests that some of these chemicals may be harmful to people, especially infants and children.

The two best-studied offenders are bisphenol A (BPA) and phthalates. BPA mimics estrogen and has been shown to disrupt hormone and reproductive system function in animals. Research by the National Toxicology Program found a moderate level of concern about its "effects on the brain, behavior and prostate gland in fetuses, infants and children." Phthalates have been shown to disrupt the endocrine system and have led to malformations in the male reproductive system in animals. Studies in humans have found associations between high phthalate exposure and a variety of health concerns including low sperm quality, high waist circumference and insulin resistance.

Researchers are still debating whether phthalates and BPA actually cause these health problems and, if so, how much exposure is necessary to trigger them. While these issues are being figured out, some experts recommend taking a preventive approach: "Minimize contact of food with problematic plastics as a precautionary measure to protect your health," suggests Rolf Halden, PhD, adjunct associate professor of environmental health sciences at the Johns Hopkins Bloomberg School of Public Health. Here are six simple tips for reducing your exposure to the potentially harmful chemicals in plastics.

1. **Know the code.** Look on the bottom of your plastic to find the recycling symbol (a number between 1 and 7 enclosed in a triangle of arrows). The code indicates the type of plastic you are using and can give you important clues about safety. "We generally say 1, 2, 4 and 5 are considered to be the safest," says Sonya Lunder, senior analyst at the Environmental Working Group. Try to avoid using plastics with 3 or 6, as these leach chemicals that may be harmful. Number 7 is an "other" category that includes BPA-containing plastics called polycarbonates. These plastics, which you should avoid, will have the letters PC printed underneath the 7.

2. **Reconsider the microwave.** Heat can increase the rate at which chemicals like BPA leach from plastic. Containers labeled "microwave safe" have been tested by the Food and Drug Administration (FDA) and found to leach extremely small amounts, which the FDA has determined to be safe. However, some experts advise people to keep plastic out of the microwave altogether. "I don't microwave anything in plastic," says Lunder. "It's really easy and
fast to put my food into a ceramic or glass container and heat it that way." And never put plastic wrap on top of your food in the microwave, since it can melt. Use wax paper or a paper towel instead.

3. **Use it for its intended purpose.** Plastics that are designed for single use should only be used once. "Plastic breaks down over time," Lunder explains. "Some aren't designed to withstand heating and cooling." Most plastics with recycling code number 1 are intended for single use, such as disposable water bottles. And that takeout container from six months ago? Toss it. In general they're fine for refrigerating leftovers, but aren't designed for heat exposure or long-term use.

4. **Wash by hand.** Only put plastics into the dishwasher if they have a dishwasher safe label. If you want to be extra-cautious, wash all plastics by hand or use only glass and ceramic plates and dishes. In the dishwasher, plastics are exposed to detergents and heat, which may accelerate the leaching of BPA from food containers.

5. **Do not freeze.** Only put plastics in the freezer if they have a freezer-safe label. Freezer temperatures can cause plastics to deteriorate, which increases the leaching of chemicals into the food when you take containers out of the freezer to thaw or reheat.

6. **Don't panic.** Cutting down on exposure to potentially harmful chemicals in plastics can benefit your health. But as Dr. Halden reminds us, "Many things in your life pose a much higher risk than exposure to plastics, such as smoking, poor diet and even driving a car."