Plastics: A Fact Sheet

Plastics are everywhere. Since 1976, plastic has been the most widely used material in the United States. In 2001, the US disposed of over 25 million tons of plastic. Plastics are the fourth largest category of municipal solid waste. Some plastics are safer than others to use. Below is a list of different types of plastics, which ones to avoid, and which ones are safer to use. Also provided are suggested alternatives to common plastic products.

Types of Plastics

Plastic containers are usually numbered on the bottom, indicating the type of resin used in their manufacture.

#1 – polyethylene terephthalate (PET or PETE)
Products: Soft drink bottles, medicine containers

#2 – high density polyethylene (HDPE)
Products: Toys; bottles for milk, water, detergent, shampoo and motor oil

#3 polyvinyl chloride (V or PVC)
Products: Pipe, meat wrap, cooking oil bottles, toys

#4 low density polyethylene (LDPE)
Products: Wrapping films, grocery bags

#5 polypropylene (PP)
Products: Syrup bottles, yogurt tubs, diapers

#6 polystyrene (PS)
Products: Coffee cups, clam-shell take-out containers

#7 other (usually polycarbonate)
Products: Medical storage containers, baby bottles, lining in food cans, some water bottles.

Plastics to Avoid

- *PVC*: Avoid PVC (#3). The manufacturing and incineration of PVC vinyl releases cancer-causing dioxins into the environment. Dioxins are then ingested by cattle, poultry, sea creatures, and other animals, thus entering the food chain. PVC also often contains lead and toxic plasticizers such as phthalates that migrate into food, water, air, and our mouths (e.g., when infants mouth PVC toys). Furthermore, most recycling programs do not accept PVC.

- *Leaching plastics*: Avoid PVC (#3), polystyrene (#6), and other plastics (#7). All of these are known to leach harmful chemicals such as bisphenol A into the foods they contain. These chemicals can disrupt proper hormone functioning, leading to a variety of reproductive and neurological health problems.

Safer Plastics

- *Choose plastics that are accepted for recycling in your area*. Many people believe that the simple presence of a code on the bottom of a container means that it is recyclable. The numbers indicate the type of resin used, but not all types are accepted for recycling. The most commonly recycled plastics are #1 (PETE) or #2 (HDPE).

- *Choose non-PVC cling wrap* such as Glad Wrap. Also, Saran Premium Wrap and Saran Cling-Plus Wrap do not contain PVC or bisphenol A.

- *Choose #1 (PETE), #2 (HDPE), #4 (LDPE) and #5 (PP) plastics*—these are safer choices since most research has not shown leaching of carcinogens or hormone-disrupting chemicals from these. However, #4 and #5 are not as widely recyclable. Some bread and frozen-food bags and squeezable bottles are made of #4 plastic. Some ketchup bottles and yogurt and margarine containers are made of #5 plastic. Medela and Evenflo baby bottles are generally made of safer plastics.

- *Choose biodegradable plastics.* The use of a corn-based biodegradable plastic called polylactide (PLA) is growing. For example, Wild Oats supermarket chain replaced its bulk food containers with PLA. Biodegradable garbage bags and disposable dinnerware are now available for home use (see www.simplybiodegradable.com). Look for the Biodegradable Products Institute's "Compostable" label on certified products, which indicates that the product rapidly breaks down and can support plant growth after decomposing. Look for innovative companies who are using Green Chemistry in manufacturing processes.

Alternatives to Plastics

- *Glass, ceramic and stoneware* do not leach chemicals into foods. Glass recycling is also more environmentally friendly than plastics recycling.

- *Stainless steel* containers are 100% recyclable, inexpensive, and will not react with foods during cooking.

- *Wax paper* sandwich bags are an alternative to plastic sandwich bags.

- *Wood cutting boards instead of plastic* are preferable. Spray your cutting board with a mist of vinegar, then a mix of hydrogen peroxide and water, then rinse, to kill bacteria.

Sources: The Green Guide (www.thegreenguide.com)
Co-op America (www.coopamerica.org)