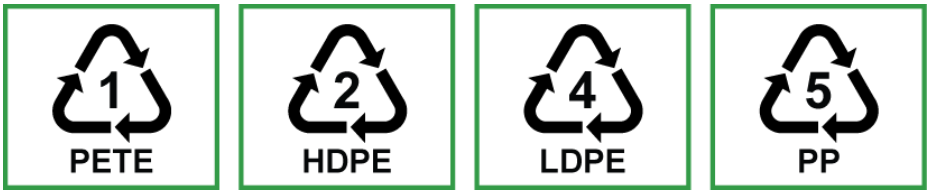
Mount Sinai Children's Environmental Health Center

Check the Kind of Plastics You Use

- Some plastics are made with chemicals called phthalates [THAL ates] or BPA which means bisphenol A [BIS fee nall].
- These chemicals can leach from (come out of) everyday plastic products like toys, bottles, containers, and personal care products.
- Scientists and doctors are learning about these chemicals and the health effects they may have especially on children.
- You can use the following guide to choose safer plastics and decrease exposures.

Check the symbol on the bottom of the plastic items before you buy:

Choose safer plastics:[1]



Plastics to avoid:[2,3]

PVC or vinyl Can contain phthalates	Polystyrene Foam	Can contain Bisphenol A

1. Luz Claudio and Reeve Chace. Quick Guide to Plastics. Staying Healthy in a Changing Environment #3. Mount Sinai Community Health Bulletin. June 2006.
2. Code #6: Styrene, a potentially toxic chemical, may be released from containers made from polystyrene foam (Styrofoam and related brands) when they are used to heat or store foods or liquids at temperatures exceeding 80°C (176°F).

   Code #7 covers "other" plastics, which includes polycarbonate. Therefore not all code #7 plastic bottles contain polycarbonate and leach BPA. Also, BPA can be given off from other products.

How to Avoid Phthalates and BPA:

- Do not microwave food/beverages in plastic
- Do not microwave or heat plastic cling wraps
- Do not place plastics in the dishwasher
- If using hard polycarbonate plastics (water bottles/baby bottles/sippy cups), do not use for warm/hot liquids
- Use safe alternatives such as glass or polyethylene plastic (symbol #1)
- Avoid canned foods when possible (BPA may be used in can linings)
- Look for labels on products that say “phthalate-free” or “BPA-free”

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What are Phthalates and BPA?

Phthalates are man-made chemicals used in many different products. These chemicals are put in some toys and bottles to make plastics flexible. They are also used in cosmetics and other personal care products like some lotions and shampoos

Bisphenol A (BPA) is a chemical used to make a strong plastic called polycarbonate that is used in many things like drinking bottles. BPA is also used on the inside of many metal food cans to keep the cans from rusting.

How can my family be exposed to Phthalates and BPA?

Adults and children may be exposed to phthalates and BPA in the environment and at home. Both phthalates and BPA can leach out of plastics when they are heated and the chemicals get into the food or drinks in the plastic containers. Scientists are still learning if the amount that comes out is dangerous. The chemicals can be found in the following products:

Phthalates

- Food storage containers
- Polyvinyl chloride (PVC) tubing/products (such as water pipes)
- Flexible plastics, plastic bottles

Bisphenol A (BPA)

- Metal cans of food and infant formula
- Hard-plastic baby bottles
- Sippy cups
- Plastic bottles

What are the health effects of Phthalates and BPA?

Many doctors and scientists are concerned about phthalates and BPA because they can act in ways similar to hormones naturally found in our body. Hormones help control how our body works. Most of the health information we know about these chemicals comes from animal studies.

In studies using rats, phthalates cause problems with male reproductive organs. In children, scientists have found an association between phthalates and changes in reproductive hormones and increased allergies, runny nose, and eczema. In adults, phthalates are associated with changes in sperm quality.

Bisphenol A may cause changes in cells in breasts, the uterus, and the prostate which can increase risk of cancers. In addition, BPA has been associated with increases in developmental disorders of the brain and nervous system in animals. These developmental disorders in animals are like problems such as ADHD (attention deficit hyper-reactivity disorder) in humans.

*To speak with an environmental health professional in our clinical center at Mount Sinai, please call **1- 866-265-6201** or email **pehsu@mountsinai.org.***

Other Resources

- National Institute for Environmental Health Sciences, http://www.niehs.nih.gov/health/topics/agents/endocrine/index.cfm
- CDC National Report on Human Exposures http://www.cdc.gov/exposurereport/

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