Plastics 101

By Deborah Bain, M.D.

I have been following the growing concerns in the media regarding the ill-health effects of BPA in baby bottles and sippy cups as well as other plastics. So here is a plastics 101 lesson.

Just as we encourage you to read food labels, you should also read the recycle label before you cook or store your food in plastic containers

The codes on the undersides of containers refer to the type of plastic in that product.

1 PETE **PET or PETE (polyethylene terephthalate)** Found in the thin, clear plastic containers of bottled water, cooking oil. Safe for one use, but do not reuse, refill or heat.

2 HDPE **HDPE (high-density polyethylene)** Thicker, opaque plastic used for milk jugs, juice bottles and detergents. Safe to refill and reuse.

3 V ***Polyvinyl Chloride (PVC or vinyl)** Many PVC products have phthalates which are suspected endocrine-disrupting chemicals. Grocery stores commonly use PVC to wrap meats and cheeses.

4 LDPE **LDPE (low-density polyethylene)** Found in soft plastics such as grocery bags and plastic wraps.

5 PP **PP (polypropylene)** Hard but flexible plastic used in ice cream, yogurt and take-out containers. Do not microwave food in single use containers or Styrofoam containers/tableware.

6 PS **Polystyrene:** Coffee cups, disposable cutlery and cups (clear and colored), bakery shells, meat trays, "cheap" hubcaps, packing peanuts, styrofoam insulation.

7 OTHER ***Other (including polycarbonate - PC, nylon and acrylic)** This code is the grab-bag of plastics. Polycarbonate plastics are often hard and transparent. They are common components in water and infant bottles and food containers.

***Avoid**

BPA (bisphenol A) is a common ingredient used to make **PC (polycarbonate)** and epoxy resins used to line cans to prevent corrosion, food contamination, and to extend the shelf life of the contents. Under normal conditions, low levels of BPA will leach into contents from polycarbonate plastic bottles. Recent studies have shown that the chemical leaks at a faster rate after a lot of wear and tear, reuse, and when exposed to hot liquids.

A growing number of studies have shown that exposure to BPA during pregnancy, infancy, and early childhood may affect normal development and sensitivity to onset of disease such as some cancers later in life. The Canadian government has recently declared bisphenol-a, or BPA, toxic. With the growing evidence of the potential danger of BPA in baby bottles, BPA-free and glass baby bottles are becoming more readily available. Unfortunately for now, there are no alternatives to date to reduce the BPA found in infant formula cans.

The bottom line for me is that babies are being exposed to far too many chemical stressors starting at a very early age and extending throughout childhood, and we just do not know all the implications of this exposure on the developing child. In my 13 years of private practice, I have seen such an increase in Autism Spectrum Disorders, Sensory Integration Disorders, Developmental Delays of many kinds, ADHD, etc., all of which cannot be readily explained by a genetic predisposition. It makes sense to me that limiting our children's exposure to unwanted chemicals in foods, beverages, and in the environment will indeed go a long way in keeping them healthier.