



Safety Concerns of Plastic Baby Bottles

There has been a lot of discussion in the news lately regarding plastic baby bottles, especially polycarbonate ones, along with water bottles such as Nalgene, Camelbak, and the like. There are many of these bottles on the market today, as this plastic is impact resistant. There is a chemical called bisphenol-A (BPA) which is the building block for a number of compounds, including polycarbonate plastics. It is also found in many other places, such as the lining of food can liners, water filters, dental sealants, and epoxy-lined wine vats.

A little bit of scientific speak regarding BPA. It was first recognized as a synthetic estrogen in the 1930s and is part of a family of chemicals called endocrine disrupters, as they have the ability to interfere with the production of hormones. It is believed that these endocrine disrupters also have an effect on the development of egg cells, reproductive organs, and fat cells, especially important to the developing fetus or newborn. There have also been studies that have shown a possible link of BPA to altering the insulin function of laboratory mice, which may increase the potential for Type II diabetes. BPA is known to produce adverse effects in very small quantities.

Unfortunately, BPA can leach out of the plastic into milk, formula, fluids, or foods and be ingested. One major problem with BPA is that it will leach out of the plastic faster at higher temperatures, such as when heated with milk or formula or when it is washed in a dishwasher or a sanitizer or as it gets older. The same is true of liquid formula stored in metal cans.

As it stands today, there is no national standard on banning the use of BPA. In the meantime, some states are considering banning the sale of all products containing BPA. As of April 18, Canada is in the process of banning the import and sale of polycarbonate baby bottles.

So what should you do?

- On the bottom of a bottle container, there should be the recycle mark and a number from 1 to 7 or a letter code. If it is marked #7 (which includes many types of plastics, including PC - polycarbonate) and if you have a baby, discard them or use them with disposable bottle liners (these are made out of polyethylene), unless the manufacturer claims that they use plastics that are BPA free. For reference, as of April 2008, both Nalgene and Camelbak are using a different plastic than BPA, but there may still be many bottles on the market with plastics that do contain BPA.
- Instead use glass bottles (obviously these don't have the impact resistance of plastics, but these are safe and easy to sanitize and can be reused virtually indefinitely) or plastic bottles that are believed to be safe. These are marked #2 HDPE (High Density Polyethylene), #4 LDPE (Low Density Polyethylene), or #5 PP (Polypropylene).
- Avoid baby bottles that are marked #1 (PET or Polyethylene Terephthalate), #3 (V Vinyl or Polyvinyl Chloride), or #6 (PS or Polystyrene) as these have other chemicals which can leach under certain conditions, although bottles made with these materials are hard to find.
- Avoid metal food containers such as cans (especially baby formula), or purchase products from companies that do not package their products with BPA.
- Be aware that some wines may have BPA, as some of these are prepared in vats with a protective epoxy lining.

Until more is known about BPA, it is much better to stay on the safe side and avoid it.



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