



Q: How can I make sure that my child is using the safest containers for his/her school lunch?

A: Reusable lunchboxes and water bottles are great environmentally-friendly alternatives to single-use paper or plastic bags and individual beverage containers. However, studies have shown that some lunchboxes made from PVC (polyvinyl chloride) or vinyl may contain lead or phthalates. Rigid plastic water bottles and sippy cups may contain Bisphenol-A (BPA) or PVC.

At first glance, it may seem overly cautious to worry about an apple rolling around in a lunch box, or water in a plastic container, but all three chemicals found in certain plastics—lead, phthalates, and BPA—are cause for concern. Food and beverage containers containing lead should be avoided altogether. Those containing phthalates and BPA should be avoided as much as possible. When lunchboxes and bottles are exposed to heat, chemicals can leach out of the plastic and cause exposures to children through skin contact, inhalation, or ingestion.



Lead - Of the additives to plastic, the most thoroughly researched by health experts is lead. While the amount of lead in these products is variable, no level of lead is safe for young children. Low level lead exposures have been associated with behavioral problems and decreased intelligence in children. At higher blood lead levels, children may exhibit gastrointestinal related symptoms. These children may have difficulty with learning and school performance, in addition to behavioral problems, such as hyperactivity and ADHD. Severe lead poisoning may be associated with neurological symptoms.

Phthalates- In recent years, phthalates are often in the news, particularly due to concerns with teething babies chewing soft, vinyl toys. Most of the health information we know about phthalates comes from animal studies. The studies show that phthalates disrupt hormonal function and are toxic to the male reproductive organs. Many pediatricians are concerned about phthalates because they appear capable of causing similar effects in children's bodies.

Bisphenol-A (BPA) - The use of BPA in plastics has steadily increased over the past few decades, making it one of the most commonly produced chemicals in the world. As a result of its widespread use, traces of the chemical are found everywhere from breast milk to groundwater. BPA is suspected of disrupting hormones. Preliminary animal testing points to a range of potential health threats, from interference with the male reproductive system to problems with brain development. A recent report from Yale University indicates BPA interferes with brain development in infant monkeys. This is of concern because the stages in development of the monkey brain are very similar to those in the brain of a human infant.



Legislation- Because of its high degree of toxicity, lead is federally regulated when used in children's toys. Unfortunately, federal limits on lead levels do not extend to children's products, other than toys. In early August, the President signed the Consumer Product Safety Improvement Act, which is the first of its kind to include such strong legislation on children's products, including a ban on 3 phthalates, stricter lead level guidelines and better product labeling. No legislation exists for BPA in the US, but Canada has banned BPA from baby bottles.

Refer to this check list when shopping for lunch boxes, food and drink containers:

- Seek out lunchboxes labeled "lead safe" or "lead free," "PVC-free" or "vinyl-free," and plastic bottles labeled "BPA-free." Plastics should be substituted as much as possible with glass or stainless steel or used in a safe manner (see below) where substitutes are unavailable.
- Because heat increases the release of phthalates from plastic, food or drink should never be warmed in a plastic container.
- Look to recycling numbers for help! PVC or vinyl is identifiable by the recycling #3 on the bottom of plastic containers. Recycling #6 used in Styrofoam cups and plates indicates the presence of polystyrene and #7 usually indicates the presence of BPA (Some new bio-based plastics, which are safe, may be labeled 7, as well). Finally, when purchasing any product either made of plastic or stored in plastic, remember to check the recycling number with the following rhyme: With your food and drink chose 4, 5, 1 and 2; all the rest aren't good for you! If these numbers can't be found, then you may want to take a precautionary approach and avoid using these products.

Safer Plastics



Plastics to Avoid

