

Body Balance: Protect Your Body from Pollution with a Healthy Lifestyle

Safe Storage for Food and Drink

Tow food and drink is **L**stored plays a big part in how long it stays fresh. Some types of packaging can keep food fresher longer. There are many types of packaging and beverage containers, and some are safer than others, which may have negative health effects. People are exposed to pollution every day, in ways that cannot always be avoided. Even storage containers may contain potentially harmful chemicals. For example, heating plastic that is not microwave safe can cause chemical residue to come in contact with food. Certain plastics may have negative effects on health. Read on to find out more about the safest ways to store food and drinks.

Drink Storage Containers

Cups and water bottles can be plastic, metal, or glass. There are many ways to store a drink. Some options may be safer than others. Bisphenol A (BPA) is a



common plastic used to make cups and bottles. BPA is concerning because of its association with negatively impacting brain development in infants and toddlers and potentially effecting hormones of people. Research is ongoing to determine if regulations should be made. If you are concerned about

BPA exposure, choose plastics labeled "BPA-free," metal, or glass. Most disposable plastic water bottles contain BPA. A reusable BPA-free plastic, metal, or glass bottle limits your exposure, reduces your risk of potential health effects, and is better for the environment than disposable plastic bottles.

Food Packaging Types

There are many ways food can be stored, and some are safer than others. Choose the safest packaging and storage options that work with your lifestyle. The chart suggests some packaging and storage options.

Summary

Choosing safe storage is one way you can reduce your exposure to harmful substances. How food or drink is packaged can make a difference. Aseptic packaging, such as boxes and pouches, is becoming more popular. Don't be afraid to try it! If there is concern about the

potential health effects of BPA, choose plastics labeled "BPA-Free" or choose glass or metal containers instead. Although people are exposed to pollution every day, the choices that people make can make a difference in health. The University of Kentucky is a participant in the Superfund Research Center (SRC), which conducts ongoing research on the effects of pollutants and hazardous chemicals on the environment and on the body. For more information, see Inter-Program (IP) publications 76 and 77. Good nutrition is one of the best defenses for staying healthy, even in the presence of environmental pollutants. Choosing to store food and drink in safer containers can help limit exposure to chemicals.



Storage Method	Facts
Freezing	One of the easiest ways to store food. May help food retain more vitamins and minerals than other methods. It's safe to use plastic bags to freeze food as long as food is emptied into a microwave- or oven-safe container before cooking.
Canned Foods	Many cans contain a plastic coating to prevent food from having a metallic taste. BPA is the coating and it may have negative health effects, such as disrupting the normal levels of hormones.
Glass Jars	Preserving in glass jars uses no BPA.
Aseptic Packaging	Examples: Boxed soups, boxed milk (including rice, almond, and soy milk), juice boxes, other foods in pouches. Aseptic packaging seals food inside a clean pouch or box and seals out contact with bacteria and air, keeping the food safe and fresh, usually without added preservatives in the food. There are no known health concerns. Thanks to recent technology advancements, this type of packaging is starting to replace canned items in grocery stores.
Glass storage containers	No known health concerns. No BPA. Microwave safe.
Styrofoam containers and cups	Styrofoam should not be heated in the microwave. Chemicals in styrofoam may leech into food or drink when hot food or drink comes into contact with the container. Check the label to see if the foam cup or plate is heat-safe. Follow the label's recommendations for safe use.
Plastic storage containers	Many contain BPA, a type of plastic that can leech into the food, especially when heated. BPA may have negative effects on the body. Choose plastics labeled "BPA-Free" if there is concern about this exposure. Not all plastic storage containers are microwave safe—check the bottom of the container for the term "microwave safe." Plastic wrap is not microwave safe.

References

Poole, R.L., K.P. Pieroni, S. Gaskari, T.K. Dixon, K. Park, and J.A. Kerner. 2011. Aluminum in Pediatric Parenteral Nutrition Products: Measured Versus Labeled Content. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3208446/.

Shelf-Stable Food Safety. 2015. http://www.fsis.usda.gov/ wps/wcm/connect/fsis-content/internet/main/topics/ food-safety-education/getanswers/food-safety-factsheets/safe-food-handling/ shelf-stable-food-safety/ ct_index#34.

Webb, J. Growing Concern over BPA Fuels Nationwide Controversy. http://www. todaysdietitian.com/news/ exclusive0609.shtml.

National Institute of Environmental Health Services. Bisphenol A (BPA). https:// www.niehs.nih.gov/health/ topics/agents/sya-bpa/

Polystyrene Fact Sheets. 2008. http://isites.harvard.edu/fs/docs/icb.topic967858.files/ PolystyreneFactSheets.pdf. This publication is made possible in part by grant number P42 ES007380 from the National Institute of Environmental Health Sciences, NIH. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of NIEHS, NIH.

Authors

Dawn Brewer, PhD, RD; Hannah Bellamy, RD; Lisa Gaetke, PhD, RD; University of Kentucky Superfund Research Center Community Engagement Core