# More Than 100 Possibly Toxic Chemicals Found in Plastic Toys for Kids

Plastic toys expose children to chemicals that can negatively affect their health.

March 9, 2021 By Alicia Green

---

Parents may want to reconsider buying plastic toys for their children. New findings published in the journal Environment International suggest that over 100 chemical substances in such toys could cause serious health problems, reports the Technical University of Denmark, known as DTU.

For the investigation, DTU and University of Michigan scientists collaborated with the United Nations Environment Programme to examine data on chemicals found in plastic toys. Researchers classified the substances according to their health risk and contrasted this with current lists of hazardous substances worldwide.

Scientists also calculated the typical amount of time a child plays with a toy, whether a kid puts the object in their mouth and how many toys per child are found in the home.

Findings showed that of the 419 hard, soft and foam plastic materials used in these toys, 126 cancerous and noncancerous substances had the potential to harm children's health. These included 31 plasticizers (chemicals used to increase elasticity), 18 flame retardants and eight fragrances. (If the chemicals exceeded the regulatory risk thresholds for cancer, researchers classified them as harmful.)

"These substances should be prioritized for phase-out in toy materials and replaced with safer and more sustainable alternatives," suggested Peter Fantke, PhD, a professor at DTU Management and the study's principal investigator.

In addition, researchers noted that youngsters in Western countries were reportedly in contact with large amounts—nearly 40 pounds on average—of these playthings.

Information about the safety and sustainability of the use of these chemicals in different applications is lacking. As a result, the scientists also introduced new guidelines—based on exposure and risk—to standardize the chemical contents of toy materials.

But until all substances are regulated, parents can take numerous steps now to ensure that their children aren't exposed to harmful chemicals, including reducing the number of plastic materials in their homes and airing out children's rooms each day.

For related coverage, read "Are Secondhand Toys Harmful to Kids' Health?"

---

© 2026 Smart + Strong All Rights Reserved.
http://beta.docker.realhealthmag.com/article/100-possibly-toxic-chemicals-found-plastic-toys-kids