



Are GMO-containing foods safe for children? Clinical report can help address parent questions

December 11, 2023

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Article type: [AAP Clinical Report](#)

Topics: [Environmental Health](#), [Nutrition](#)

Americans increasingly are aware of the profound impact of dietary quality on health but often see conflicting, confusing narratives about what to feed their families.

Pediatricians and parents seek evidence-based insight on safe and reasonable dietary patterns for children that meet nutritional needs, align with cultural preferences and overcome the barriers of a busy life and financial constraints.

The safety of genetically modified organism (GMO)-containing food products for children is a common concern of families, particularly because finding clear, balanced information is challenging. Since Jan. 1, 2022, the U.S. Department of Agriculture (USDA) has required new labeling for GMO-containing food products, raising questions about the utility of GMO crops in the food supply and the impact of these ingredients on child health.

The new AAP clinical report *Use of Genetically Modified Organism (GMO)-Containing Food Products in Children*, from the Committee on Nutrition and Council on Environmental Health and Climate Change, can help guide conversations with families. The report is available at <https://doi.org/10.1542/peds.2023-064774> and will be published in the January issue of *Pediatrics*.

Presence of herbicide residues

GMOs in the U.S. are used primarily for herbicide and insect resistance. In other countries, they may be used for nutrient fortification.

The presence of glyphosate, the primary herbicide used with GMO crops, and other herbicide residues in GMO food products is the main concern for potential effects on child health. When considered apart from their usage with herbicides, there is no current indication of negative impacts of GMOs on human health.

A literature review indicates a significant increase in the presence of glyphosate. Research on glyphosate exposure and statements by the World Health Organization reveal concerns about carcinogenic effects and potential impact on prenatal development. More research is needed to understand the possible effects of other increasingly used herbicides as well as the cumulative impact of exposure during childhood.

Emphasis on healthy diets

GMO products are designed to increase crop outputs — not to affect the taste, smell or appearance of food. Most of the food-based products derived from these crops are found in ultra-processed foods and animal feed.

The available evidence supports increased awareness and thoughtfulness about the importance of dietary patterns on child and adult health. Pediatricians can individualize these conversations to family context and resources and use them as an opportunity to screen (and intervene) for food insecurity or other barriers (see resource).

Key take-home guidance for families

- The USDA recently mandated GMO labeling (mostly impacting foods containing bioengineered ingredients when produced by large companies). GMO labels may include the term bioengineered food, a graphic symbol, a QR code or directions to learn more via text message or phone call.
- Labeling foods as non-GMO is voluntary and generally managed by third-party organizations. Organic labeling guarantees non-GMO status. Families who prefer to avoid GMO products completely can purchase organic products or those labeled as non-GMO. However, the higher cost may limit this choice.
- Families can be reminded of the value of a simple, nourishing dietary pattern that centers on fruits, vegetables, legumes, whole grains and nuts/seeds and minimizes ultra-processed foods for general health promotion as well as reduced exposure to herbicides.
- The complex array of exposures in our environments that may contribute to health risk, including the glyphosate residues described in the report, necessitate a balanced approach to minimize risk and advocate for equity in access to nourishing foods.

Parents make food choices as their risk tolerance, time and budgets allow. Pediatricians are skilled at meeting families in these personal and multifaceted spaces and providing both practical insight and health context. The clinical report aims to support pediatricians in their practical nutrition guidance to families and communities.

Dr. Albin is a lead author of the clinical report.

Resource

[Addressing Food Insecurity: A Toolkit for Pediatricians](#)