

## Synthetic Biology in Our Food Supply: What Every Parent Should Knows







### The New Reality

Today's "foods made with biotechnology" are no longer limited to GMO corn or soy. **Synthetic biology**, living organisms redesigned to express artificial genes, has entered supermarkets, schools, and even baby formula cloaked without your knowledge or consent.



Our children are now consuming ingredients produced by **engineered microbes** and **gene-edited crops** with *no requirement for safety testing, no long-term studies, and no labeling.*

### Where it Sneakily Hides

Everyday Product	How Synthetic Biology Is Used
<b>"Animal-Free" Ice Cream / Milk</b> 	Cow milk proteins (casein, whey) made by engineered yeast.
<b>Plant-Based Burgers</b> 	GMO yeast produces synthetic
<b>Kids' Snack Bars &amp; Yogurt</b> 	Synthetic vitamins, flavors, and enzymes from CRISPR microbes.
<b>Bread, Crackers, Cereals</b> 	"Processing enzymes" made by engineered bacteria; unlabeled.
<b>Fruit Drinks &amp; Gummies</b> 	Sweeteners and color enhancers
<b>Animal Products</b> 	Livestock fed synthetic-biology amino acids and feed additives.

### Why It Matters for Children

- **Developing Gut & Immune System:** Novel microbial proteins can alter microbiome balance.
- **Unstudied Metabolites:** Synthetic compounds have no long-term developmental toxicity data.
- **Allergy Potential:** Even "bio-identical" proteins aren't always immunologically identical and can cause immune reactions.
- **Lack of Informed Consent:** Parents receive no notice that their children are part of this experiment.

## How to Spot It

Look for words or claims such as:

- *Fermentation-derived, Precision fermented, Bioidentical, Animal-free, Produced with biotechnology, Bioengineered.*
- Terms like *enzymes, natural flavors, vitamins* with no source listed are often synthetic-biology derived.

**Tip:** Ask brands directly:

“**Were any ingredients produced using genetically engineered or synthetic microorganisms, and were they tested for safety in children?**”

### What Parents Can Do

1. **Choose minimally processed foods:** fresh produce, pastured meats, and small-farm dairy.
2. **Support transparent brands** that use certified organic ingredients.
3. **Share knowledge** with other parents, PTAs, and local health advocates.
4. **Demand clear labeling** of all bioengineered or “precision-fermented” components.
5. **Stay informed** at [GMOScience.org](http://GMOScience.org).

## The Bottom Line

Synthetic biology has crossed into the food supply without our permission or oversight. Our children deserve transparency, independent testing, and true informed consent before new genetic technologies reach their plates.

Prepared by GMOScience.org: Advocating for transparency, scientific integrity, and child safety in biotechnology.



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