

## Food additives a toxic mix for kids

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(HealthDay)—Chemicals used to preserve, package and enhance food can harm children's health, a leading pediatricians' group says.

A growing mound of scientific evidence has linked these chemicals to changes in children's hormone systems, which can alter their normal development and increase their risk of childhood obesity, the new American Academy of Pediatrics (AAP) policy statement argues.

These chemicals affect the health of all humans, but can have a particularly strong effect in children, said lead author Dr. Leonardo Trasande, an environmental health researcher with New York University's School of Medicine.

"Pound for pound, they eat more [food](#), so they have higher levels of exposure compared to us adults," Trasande explained. "Their organs are still developing in various ways, such that effects on that development can be permanent and lifelong."

## The chemical culprits

Some chemicals that affect food safety include:

- Bisphenols like BPA, which are used in plastics and the lining of metal cans. They can act like estrogen in the body, affecting onset of puberty, decreasing fertility, increasing body fat and affecting the nervous and immune systems.
- Phthalates, which are found in plastics and vinyl tubes used in industrial food production. These chemicals can affect male genital development, increase [childhood obesity](#) and contribute to heart disease.
- Perfluoroalkyl chemicals (PFCs), used in grease-proof paper food packaging. They might reduce immunity, birth weight and fertility, and can affect the thyroid system.
- Percholate, which is added to dry food packaging to control static electricity. It also is known to disrupt [thyroid function](#) and can affect early brain development.

- Artificial food colors, which have been associated with worsened attention deficit hyperactivity disorder (ADHD) symptoms.
- Nitrates and nitrites, which are used to preserve food and enhance color, particularly in cured and processed meats. These chemicals can interfere with [thyroid hormone production](#), and have been linked with gastrointestinal and nervous system cancers.

"This is a critically important report about environmental risks that have received less attention than they deserve, whether by the pediatric community or regulators," said Dr. Michael Grosso, chair of pediatrics and chief medical officer at Huntington Hospital in Huntington, N.Y.

"There is now a compelling body of evidence that the environmental chemicals that go into food processing and food containers may have significant effects on human health, including fertility, thyroid disease, certain cancers and much more," Grosso said. "Of concern is that some of these remain in the body for years."

Kristi King, senior dietitian with Texas Children's Hospital in Houston, said she has "heightened concerns regarding those additives that are thyroid disrupters."

"PFCs can alter thyroid function and metabolic changes. Perchlorate, nitrates and nitrites disrupt thyroid hormone production and inhibit iodine uptake in the body," King explained.

"Iodine is extremely important in promoting growth and metabolism in children. Iodine is also essential for early brain and neurological development. Having an iodine deficiency could ultimately lead to poor growth and delayed [thinking] ability," she said.

## **Tighter regulation needed**

The policy statement calls on politicians and bureaucrats to tighten regulations related to food additives. These measures include a more rigorous and transparent "Generally Recognized as Safe" designation process, including new requirements for toxicity testing before use in the marketplace and retesting previously approved chemicals.

And Trasande argued that citizens can have an even greater impact in this area than elected officials.

"The general public can do a lot to drive the kinds of changes that are positive for children's lives and human health," Trasande said. "The ban on BPA from baby bottles and sippy cups was not driven by some scientific statement or some regulatory good feeling. It was driven by consumer outcry. The same could be said for phthalates in toys."

## **What parents can do**

The AAP policy statement said parents can limit their children's exposure to these chemicals by:

- Choosing fresh or frozen fruits and vegetables over canned.
- Avoiding processed meats, particularly during pregnancy.
- Not microwaving plastic containers of food, or placing plastics in the dishwasher.

Parents also can use the recycling code on the bottom of products, as a means of determining whether the plastic packaging is safe, the statement said.

You should avoid plastics with recycling codes 3 (phthalates), 6 (styrene) and 7 (bisphenols), unless the plastics are labeled as "biobased" or

"greenware." That means the plastics are made from corn and don't contain bisphenols.

"It is important to have an initiative to educate families on label reading to try to identify chemical-free packaging and look for foods and beverages free from preservatives, artificial colors and artificial flavors," said Audrey Koltun, a registered dietitian nutritionist with Cohen Children's Medical Center in New Hyde Park, N.Y. "This is something I try to cover in a nutrition session.

"Elaborate and colorful [food packaging](#) with health claims can entice consumers into thinking a food is healthy or wholesome when it is not, and can have one or all of these additives," Koltun continued. "Education to families is crucial to lessen exposure to children."

The new policy statement was published online July 23 in the journal *Pediatrics*.

**More information:** Leonardo Trasande, M.D., associate professor and environmental health researcher, New York University School of Medicine, New York City; Michael Grosso, M.D., chair, pediatrics, and chief medical officer, Huntington Hospital, Huntington, N.Y.; Kristi King, M.P.H., R.D.N., senior dietitian, Texas Children's Hospital, Houston; Audrey Koltun, R.D.N., registered dietitian nutritionist, Cohen Children's Medical Center, New Hyde Park, N.Y.; July 23, 2018, *Pediatrics*

The U.S Food and Drug Administration has more about [food additives](#).

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