



AI Mode All Images Short videos Forums More ▾



What are the 180 chemicals linked with breast and other cancers are used in food production and

a few seconds ago

An estimated 189 chemicals linked to breast and other cancers are used in food production and packaging, according to a 2024 study published in [Frontiers in Toxicology](#). The chemicals are found in food contact materials like plastics, paper, and cardboard, and can migrate into food and beverages. [🔗](#)

Prominent chemical categories associated with cancer risk in food production and packaging include: [🔗](#)

- **Bisphenols:** Endocrine-disrupting compounds like Bisphenol A (BPA) and its replacements, such as Bisphenol S (BPS), are used in the epoxy linings of cans and other plastics. BPA acts like an estrogen in the body and has been linked to increased risk of breast cancer.
- **Phthalates:** This broad class of plasticizers is used in food packaging, conveyor belts, and food-service gloves. Phthalates are hormone disruptors linked to breast cancer and other health issues.
- **Per- and polyfluoroalkyl substances (PFAS):** Often called "forever chemicals," PFAS are used to make food wrappers and containers grease- and water-resistant. They have been linked to breast and other cancers, as well as thyroid disease and immune system impairment.
- **Volatile organic compounds (VOCs):** These include chemicals like styrene, used in Styrofoam and polystyrene packaging, and vinyl chloride, a component of PVC resins used in food linings. Both are classified as probable or reasonably anticipated human carcinogens.
- **Pesticides and herbicides:** Agricultural chemicals like DDT (banned in the U.S. but still present in the environment) and atrazine (used widely in the U.S., but banned in the EU) are endocrine disruptors that can contaminate the food supply.
- **Other food additives:** The [Environmental Working Group](#) has identified other concerning chemicals used as preservatives and additives, including Butylated hydroxyanisole (BHA), Butylated hydroxytoluene (BHT), and potassium bromate. [🔗](#)

How these chemicals enter the food supply

The primary ways these chemicals end up in food and in human bodies are: [🔗](#)

- **Migration from packaging:** As food is produced, processed, and stored, chemicals can leach from packaging materials into the food itself. This process is accelerated by heat.
- **Contaminated equipment:** Phthalates can leach into food from materials like conveyor belts and milking equipment used during manufacturing.
- **Pesticide residues:** Traces of pesticides and herbicides can remain on fruits, vegetables, and other products.

Ask anything

+



- **Phthalates:** Dibutyl phthalate, Di(2-ethylhexyl) phthalate, and Diethyl phthalate.
- **Bisphenols:** Bisphenol A.
- **Other compounds:** Benzophenone, styrene, and Irganox 1010. 

Regulatory and exposure context

- While regulatory bodies like the FDA control the use of some food-contact chemicals, critics argue that the regulations are not strict enough. Some replacement chemicals used by manufacturers have also shown potential for harm.
- The overall cumulative effect of long-term, low-level exposure to multiple endocrine-disrupting chemicals is not well understood, but it is considered a significant public health concern. 

This is for informational purposes only. For medical advice or diagnosis, consult a professional. AI responses may include mistakes. [Learn more](#)



-  What other cancers are linked to these food production chemicals besides breast cancer?
-  What can consumers do to reduce exposure to these chemicals?
-  What scientific research shows the link between these chemicals and cancer?

 14 sites

Food Packaging Chemicals - Breast Cancer Prevention Partners

At a Glance. Dangerous chemicals used in food production and packagi...

 Breast Cancer Prevention Partners 

Bisphenols and Risk of Breast Cancer: / Review of ...

* Abstract. Data from preclinical studies link between increased risk of breast cai

 National Institutes of Health (.gov) 

Connecting the dots between breast cancer and food

Add age to that equation, specifically 50 and above, and the risk increase...

 ASU News 

Show all