Are plastic wrap and containers safe for microwaving food? [1]

Dear Alice,

In the question about Microwave safety [2], you should mention that some containers can leach harmful chemicals into foods when heated in the microwave. PVC or vinyl or plastic #3 leach phthalates. This type of plastic is also often used in food wrap.

Answer

Dear Reader,

You are quite right that some questions have been raised about whether microwaving food using plastic wrap and plastic containers is harmful to our health. Much of the focus has been on plasticizers (chemicals used to make plastic more flexible), polyvinyl chloride, and polycarbonate. More recently, bisphenol-A (BPA), primarily used in hard plastics like polycarbonate, has also been called into question.

Research suggests that plasticizers, BPA, and other chemicals may leach into food while being heated in a microwave. Plastics tend to break down and release chemicals when exposed to high temperatures, and the fear is that some plasticizers could mimic or compete with our hormones, producing a hormonal imbalance. This imbalance has been associated with the development of cancer, birth defects, and fertility difficulties. The United States Food and Drug Administration (FDA) does consider BPA to be an endocrine disruptor, meaning it can alter hormonal levels if present in high enough quantities. What is in dispute, however, is whether BPA and other chemicals leach into food in amounts high enough to cause serious health issues. Recently the FDA updated its stance on BPA to indicate moderate concern about its harmful effects during fetal development and for infants and young children. However, the FDA has not taken the same position regarding adults, who are generally less susceptible to chemicals.

While time and more testing will show whether or not heated plastics pose a health threat, limiting exposure to plastic containers with BPA, and all plastics when heated in a microwave, is a precaution some people have decided to take recently. Infants and developing embryos are especially vulnerable to potential chemical leaching, so pregnant and breastfeeding women and parents with young children might want to be particularly careful not to heat plastics in the microwave.
Here are some hints for safe microwaving:

- Choose microwave-safe plastic wrap and never let it directly contact food.
- Try using waxed or parchment paper instead of plastic wrap.
- Only use containers that have been designated as microwave-safe. Best to use microwaveable glass and ceramic cookware. Otherwise, choose those made of polyethylene plastic which is plasticizer-free.
- Never use microwave convenience food trays and containers more than once.
- Do not microwave plastic containers used for cold food storage. They often melt and warp because they are not designed to withstand the high heat of microwaving.
- Avoid microwaving food in freezer cartons and on Styrofoam trays.

Since microwaves are so common this is information everyone can use. Thanks again for the heads up!

Alice!

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