Non-Toxic Choices for Food Preparation, Cookware, and Dishes

The quality of the food we eat is essential for good nutrition. However, it's also important to consider the kitchenware we use to prepare and consume our food because certain types can release toxins into our food. Over time, these toxins can accumulate in our bodies and may damage our health. This guide shows you how to gradually replace food preparation tools, cookware, and dishes that contain toxins with healthier options.

Food Storage Tip: Reuse Glass Jars

Reuse glass containers you already have on hand. You can wash and reuse glass jars that previously held jam, jelly, pickles, or other foods for food storage.

Step 1: Retire Damaged Kitchenware

Identify kitchenware that you use daily. If any of these items are heavily worn and you have an alternative pot, pan, container, or utensil you can use instead, retire these items from your kitchen.

- **Scratched non-stick pots and pans:** Scratched non-stick cookware releases microplastics and perfluorinated compounds (PFCs) into food.[1,2,3] Microplastics are linked to impaired fetal growth,[4] poor sperm health,[5] and an increased risk of heart attacks and strokes.[6] PFCs are linked to thyroid dysfunction,[7] gestational diabetes and hypertension,[8] low infant birth weight,[9] impaired vaccine responses,[9] and poor sperm health.[9] Only use unscratched non-stick cookware. If you need to purchase new pots or pans, choose food-grade stainless steel, cast iron, enameled cast iron, stainless steel-lined copper, or non-toxic ceramic cookware.
- **Damaged plastic cooking utensils:** Plastic utensils showing signs of wear and tear, such as frayed ends, scratches, and chipping, can release microplastics into food.[4-6,10,11] Use undamaged plastic cooking utensils you already have or purchase a wood or bamboo cooking utensil to replace the damaged one.
- **Worn-out plastic food storage containers and plastic water bottles:** Plastic food storage containers that have been heavily used or exposed to heat and the sun release chemicals like bisphenol A (BPA), phthalates, and microplastics.[4-6,12] Damaged plastic containers may look cloudy, warped, or scratched. BPA and phthalates are associated with obesity,[13] type 2 diabetes,[14] polycystic ovary syndrome (PCOS),[13] and cardiovascular disease.[13] Replace the most damaged plastic containers with food-grade stainless steel or glass.
- **Scratched plastic cutting boards:** Plastic cutting boards with many nicks and cuts may release toxins like phthalates,[15] microplastics,[16] and triclosan,[17] an antibacterial compound linked to harmful effects on the gut microbiome,[18,19] into your food.[20-22] Use a wood or bamboo cutting board instead.

Safe Ceramic Cookware

Some ceramic cookware, especially older and imported pieces, may contain lead.[44] Look for ceramic cookware that is labeled "lead-free."

Step 2: Minimize Damage to Current Kitchenware

If you have plastic food storage containers or water bottles, plastic cooking utensils, and non-stick cookware that are undamaged, take steps to minimize further wear and toxin release:

- **Don't wash plastic containers in hot water.** When polycarbonate plastic, commonly used in reusable plastic water bottles, is washed in water at a temperature of 176° F/ 80° C (the point when water starts to steam, common in dishwashers), BPA release increases.[13,14,23,24] Hand wash plastic items using warm soapy water instead.
- **Use wood or bamboo cooking utensils with non-stick cookware:** Metal utensils can scratch non-stick cookware, releasing PFCs into food.[1,7-9] Wood or bamboo cooking utensils are gentler on non-stick cooking surfaces.
- **Never heat food in plastic containers (like in the microwave) and avoid leaving plastic water bottles in the sun or in hot locations, like inside your car.** Sun exposure and heat increase the release of microplastics from plastic food and beverage containers.[4-6,25,26]

Step 3: Replace Food Preparation Tools, Cookware, and Dishes with Non-Toxic Alternatives

Gradually replace kitchenware that contains toxic chemicals with non-toxic options. Start by replacing the least expensive items or prioritize replacing core kitchenware – depending on what you use most often and your budget.

Here are non-toxic swaps for common kitchen essentials:

- **Food wraps:** Replace aluminum foil with parchment paper. Food can be contaminated with aluminum when it is cooked in aluminum foil. Aluminum exposure is linked to decreased cognitive function,[27] Alzheimer's disease,[28] and autism spectrum disorder.[29-31] Plastic wrap can release phthalates and microplastics into food.[4-6,13,14,32,33] Try glass food containers or beeswax wrap instead.
- **Cooking utensils:** Plastic cooking utensils, such as spoons, spatulas, and mixing bowls, can release microplastics.[4-6,10,11] Replace plastic cooking utensils with wood or bamboo ones and plastic mixing bowls with food-grade stainless steel or ceramic bowls.
- **Cutting board:** Swap your plastic cutting board, which can release microplastics and triclosan, with a wood or bamboo one.[15-22]
- **Food storage:** Replace plastic food storage bags (like Ziploc bags) with silicone food storage bags or glass or food-grade stainless steel containers. Plastic food storage bags and containers can release microplastics and BPA.[4-6,34-36] Beware of "BPA-free" plastic beverage and food storage containers because they may still leach potentially harmful BPA-like chemicals.[37,38]
- **Cookware:** Avoid non-stick cookware, and instead choose food-grade stainless steel, cast iron, enameled cast iron, oven-safe glass, stainless steel-lined copper, and non-toxic ceramic cookware.[1-3,7-9]
- **Blender:** Plastic blenders release microplastics through mechanical wear and tear as food hits the sides of the blender.[39] If you use a blender frequently, invest in one with a glass container instead of plastic.

Cast Iron Cookware and Your Iron Level

Avoid cast iron cookware if you have a high iron level. Iron from cast iron cookware can leach into food and is linked to an increased iron level.[45,46]

- **Coffee maker:** Single-use coffee pods contain chemicals including bisphenol-A (BPA) and phthalates that may leach into coffee.[13,14,40] Use a French press or drip coffee maker instead of a single-use pod-based coffee maker.
- **Melamine dishes and utensils:** Melamine is used in heat-resistant plastic products, including plastic dishes. It can be transferred from dishes to food and release toxic formaldehyde when heated,[41,42] such as in a microwave. Melamine utensils may also release other harmful chemicals like phthalates.[13,14,43] Use lead-free ceramic or glass dishes instead.

You can replace just one kitchen item at a time – there's no need to replace everything at once. Every swap you make, however small, is a step towards reducing your toxin burden and supporting your health.

What about...

Air Fryers?

Air fryers are increasingly popular, but some may contain PFC chemicals. Look for an air fryer that uses a ceramic coating instead of a non-stick coating.[7-9] The words "PFAS-free" may indicate healthier air fryer options.

Sous Vides?

Sous vide is a cooking method where food is vacuum sealed in a plastic bag and then submerged in water, where it is cooked at a low temperature for a long time. Sous vide cooking is linked to migration of a variety of chemicals, including phthalates, into food.[13,14,37,38,47] Avoiding long cooking times may reduce the amount of plastic chemicals that leach into food during sous vide cooking.[47] If you like sous vide cooking, it may be best to limit it to occasional use to reduce your chemical exposure.

Silicone?

Silicone is used in multiple kitchen items, including reusable food storage bags, cooking utensils, and muffin tin liners. However, it is unknown whether silicone cookware is completely non-toxic. When silicone cookware is heated, it can release chemicals called siloxanes,[48] the long-term health effects of which are unclear.[49] It may also contain low levels of plastic compounds that can migrate into food.[50] If you choose to use silicone cookware, limit baking with silicone. Choose food-grade silicone utensils to avoid plastic chemicals.

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