

SUSTAINABLE LIVING GUIDE:

77. HOW TO KEEP QUESTIONABLE CHEMICALS OUT OF YOUR HOLIDAY COOKING¹

Emily Main[©]

There's no holiday that focuses more on food than Thanksgiving. While most of the attention goes to turkeys and the eternal cranberry sauce debate, you might want to take stock of what you're cooking in. "People are out there making all this great-tasting food, but they're cooking it in toxic pots and pans," Wayne Feister, DO, clinical assistant professor at the Ohio University College of Osteopathic Medicine and a general practice physician, told an audience at the Weston A. Price Foundation national conference last weekend. So as you're gearing up for the biggest food holiday of the year—or if you're planning major meals for the December festivities and beyond—make sure you've got the right tools for preparing it.

What to Avoid

Nonstick Pans: As we've stated previously on Rodale.com, nonstick cookware is risky business. The coatings are usually based on a chemical called polytetrafluoroethylene (PTFE) which itself is made from perfluorooctanoic acid (PFOA). PFOA has been linked to male infertility, pregnancy difficulties, high cholesterol, and thyroid problems. "A lot of times nonstick pans will say they have no Teflon, but they're still coated with PTFE," says Dr. Feister, "so it's basically Teflon." He adds that PTFE coatings have been found to emit six different toxic chemicals and have even been known to trigger something called "Teflon flu," characterized by headaches, backaches, and chills, when the pans are heated to a mere 100 to 104 degrees. PTFE-based coatings emit ultrafine particulates when heated to 464 degrees (when frying meat, a pan can reach anywhere from 400 to 470 degrees), and PFOA is released when the pans reach 680 degrees. Getting your pan that hot is easier than you think. Dr. Feister notes that tests by Dupont, which manufactures Teflon, have found that a pan preheated for 3 minutes and 20 seconds can reach 736 degrees.

PTFE-based nonstick coatings are sold under a number of brand names besides Teflon, so avoid anything advertised as Fluron, Supra, Excalibur, Greblon, Xylon, Duracote, Resistal, Autograph, Unison, Swiss Diamond, and T-Fal. This includes cookware as well as small appliances like toaster ovens.

Anodized Aluminum: Another material on Dr. Feister's watch list is anodized aluminum. Though it's an excellent heat conductor, aluminum is a toxic heavy metal, he says, that's been linked to bone and brain damage and has been found to interfere with the central nervous system. "Some studies have shown that it does cause cancer in estrogen receptors in human breast tissue," he adds. In cookware, it reacts with highly acidic or salty foods, so manufacturers started to "anodize" it. In the anodization process, a piece of aluminum cookware is dipped into an acid bath, through which an electrical current is sent, he says. "That essentially causes controlled rusting," he adds, which forms a hard coating that prevents food from reacting with the metal. "But repeated exposure to acidic foods can cause de-anodization," he says, "and you don't want bare aluminum touching your food." And if that's not enough, now Calphalon, the leading manufacturer of anodized cookware, has started adding PTFE to its coatings. It's unlikely that you'll find aluminum pots and pans that aren't anodized unless you frequent

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antique shops, but nonanodized aluminum cookie sheets are very common (more on that a little later).

Cast Iron and Enameled Cast Iron: No surprise to anyone who's still cooking with his or her grandmother's cast-iron skillet, this is one of the best materials to have in your kitchen, both from a health standpoint and a durability standpoint. Dr. Feister cites historical evidence from Africa, where anemia (an iron deficiency) disappeared after people suffering from it started cooking with cast iron. And, he adds, cast iron makes food taste better. "If you really pay attention, you'll notice on cast iron that there's these little bits of food that tend to stick a little. They tend to caramelize a little," he says. "Those things make the food taste good. If it's truly nonstick, you're messing with some of the stuff that gives food flavor."

But not all cast iron is created equal. "The most important thing about cast iron is to know where it's made," Dr. Feister says. Cast iron that isn't made in the U.S. may have been made with recycled metal, which sounds good in theory but isn't really safe. "If somebody has taken a bunch of recycled metal and melted it down into your cookware, what's to say there's not lead, cadmium, or mercury in it?" he says.

Unfortunately, nowadays you have to make a compromise with your cast iron. The only American-made brand is Lodge Manufacturing, which recently discontinued its unseasoned cast-iron cookware line and now sells only cookware preseasoned with a soy-based vegetable oil that was likely made from genetically modified soy. Most of the unseasoned cast iron on the market is made in China or Taiwan and could contain the recycled metal. Still, Dr. Feister sticks with Lodge, based on the company's high quality, durability, and good track record for safety.

Enameled cast iron is basically a glass coating over iron. It's naturally nonstick, Dr. Feister says, and it's great for roasting meat and for making tomato sauces, which will react with regular cast iron and eat away at the pans' seasoning. Both Le Creuset and Staub, the two leading manufacturers of enameled cast iron, have lifetime warranties on their products, making them worthwhile investments. Because these products are so expensive, he recommends watching for sales, particularly this time of year. He's found them for as much as 70 percent off in January.

Stainless Steel: A good set of clad stainless steel pots will last you a lifetime, Dr. Feister notes. "Clad" means that the pots and pans are made from layers of heat-conducting metals, such as aluminum or copper, that are surrounded by stainless steel. Stainless steel is a poor conductor of heat, but it doesn't react with food and it doesn't pose any health threats. So you get the benefits of cooking with aluminum or copper (another good heat conductor that has uncertain health effects) without being exposed to them. A very small percentage of people are allergic to the nickel in stainless steel, he says, but the material won't pose any problems to the general population. Dr. Feister's preferred brand is All-Clad, which is made in the U.S. and comes with lifetime warranties. Just make sure it's not "bottom-clad" only; good-quality clad stainless steel is clad all the way around.

Glass and Stoneware: Finally, for all your holiday baking, stock up on glass Pyrex casserole dishes, pie pans, and loaf pans. Stoneware is another great alternative, Dr. Feister says. The Pampered Chef sells stoneware muffin pans and rectangular stone sheets that can be used for cookies. Most chefs prefer aluminum cookie sheets, however, because they're so good at conducting heat. If you do use aluminum bakeware, line it with parchment paper, preferably the type coated with silicone, not GM-based soy or vegetable oils or petroleum-based paraffin wax.

The Ideal Cookware Set: Buying a 10-piece set of pots and pans can be a waste of money if you wind up with a bunch of pieces you don't need. In addition to the glass and stoneware baking items, Dr. Feister recommends having the following pots and pans in your kitchen. They'll serve all your cooking needs without exposing you to toxic chemicals. And since the season of massive-markdown sales is nigh upon us, you might even find some at a discount.

- 12-inch All-Clad stainless steel skillet
- 10- or 12-inch Lodge cast-iron skillet
- 2- and 4-quart All-Clad stainless steel saucepans
- 5½- or 7½-quart Le Creuset enameled cast-iron Dutch oven
- 12-quart All-Clad stockpot