

The Misconceptions about Electric Pressure Cookers¹

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Figure 1. Image of an electric pressure cooker.
Credit: Hanna Tor via Adobe Stock

The Stigma about Pressure Cookers

Pressure cookers became a popular kitchen appliance in the 1950s and were commonly used to can home-grown produce. Unfortunately, early models of pressure cookers gained a reputation for being “dangerous” due to their poorly constructed weighted valve, which would easily clog while cooking. As pressure built up in the cooker, gaskets would blow, causing water or steam to spew out or the lid to fly off. Fortunately, today, pressure cookers now come with several fail-safe mechanisms to ensure safety, such as multiple valves, dual pressure regulators, and spring-loaded locks. Now, pressure cookers are making a comeback, helping families cook amazing meals in a fraction of the time.

How Does a Pressure Cooker Work?

A pressure cooker is a tightly sealed pot with steam inside that builds up high pressure to cook food fast. As the pot heats up, the liquid inside steams, increasing the pressure in the pot. Since steam pressure can reach around 250 degrees Fahrenheit (which exceeds the boiling temperature of water at 212 degrees Fahrenheit), food cooks faster. This high pressure also forces liquid and moisture into the food being cooked, which not only makes it cook faster, but it also helps tough meat get very tender and become more flavorful as well.



Figure 2. Stovetop pressure cooker vs. an electric pressure cooker vs. an instant pot.

Credit: Olaf Speier (left); arianahabich (center); James (right) all via Adobe Stock

The Differences between a Stovetop Pressure Cooker, an Electric Pressure Cooker, and an Instant Pot®

Stovetop pressure cookers can reach higher temperatures and pressures than electric pressure cookers, so they can cook food faster. Electric pressure cookers cook food a little more slowly than their counterparts; however, they offer more features and functions, and you don’t have to watch them as closely as stovetop pressure cookers. Instant Pots are a brand of electric pressure cookers. Many models have more advanced features, including Alexa integration and Wi-Fi connectivity, which gives you more control while cooking.



Figure 3. Open pressure cooker with chicken risotto inside.

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What Can You Cook in a Pressure Cooker?

Pressure cookers are versatile and are designed to cook things quickly. Pressure cookers are helpful for cooking roasts and tough cuts of meat that need to be tenderized. They can cook rice and pasta in as little as 5 minutes, beans in about 30 minutes, and they make soups and stews that cook quickly yet taste like they have been simmering all day. There are many recipes and cookbooks online for how to cook everything from hard-boiled eggs to short ribs, and from crème brûlée to cinnamon-roll steel-cut oats. You can find these recipes and more, here: 76 Easy Pressure Cooker Recipes, <https://www.brit.co/beginner-pressure-cooker-recipes/>; and 78 Pressure Cooker Recipes, <https://www.tasteofhome.com/collection/pressure-cooker-recipes/>.

What Are the Benefits of a Pressure Cooker?

Pressure cooking reduces most cooking times by about 70%. Since pressure cooking requires less water, food can retain most of its nutrients, making it healthier to eat and preserving its natural flavors. Cooking with a pressure cooker is more energy-efficient than cooking in multiple pots on separate stovetop burners, and it won't heat up your entire kitchen the way your oven would.



Figure 4. Open pressure cooker with red sauce and peppers and onions inside.

Credit: © siims via Canva.com

Pressure Cooker Safety

Always read the manual before using your pressure cooker. Check all components before cooking to ensure the silicone gasket is intact and the locking cover seals securely. Do not overfill the pressure cooker and be sure to add the minimum required liquid per the appliance's manual. Do not block the venting valve while cooking or releasing pressure. Using the proper pressure release method will keep the valve from clogging. Do not force the lid open. Tilt the lid away from you when opening to prevent burns from steam. Always use proper protective gear when handling the pressure cooker's hot components.

Food Safety and Pressure Cookers

Frozen food can be cooked in a pressure cooker. Check the appliance's manual for guidelines, but cooking frozen food usually requires adding more liquid and increasing the cooking time. Use a cooking thermometer to measure the internal temperature of meat, poultry, eggs, fish, and shellfish when cooked in a pressure cooker to verify it has reached the required safe internal temperature as recommended by the USDA:

<https://www.fsis.usda.gov/food-safety/safe-food-handling-and-preparation/food-safety-basics/safe-temperature-chart>.

Cleaning a Pressure Cooker

Do not place the base and the heating element in water or in the dishwasher. These can be wiped down with a damp cloth. The inner pot and lid of most models are dishwasher-safe (check your owner's manual for specific cleaning recommendations). The sealing ring should be hand-washed in soapy water, thoroughly dried, and inspected for cracks or other damage before being put back in the lid. There is a guard or an antiblock shield under the lid that prevents the pressure release valve from clogging. This part can be washed in warm, soapy water and then wiped dry. Check the steam release valve and the

float valve to make sure nothing has clogged the pathways. If the unit has a condensation collector, hand-wash and dry it thoroughly before returning it. This needs to be checked regularly for moisture to prevent mold growth.

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