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# Reconsidering Cast Iron

Is cast iron the original nonstick pan? Do recent innovations improve on this traditional kitchen workhorse?

BY LISA McMANUS

Centuries before DuPont invented Teflon in 1938, people were cooking with cast iron. Over the past 30 years, nonstick skillets have taken the place of cast iron in most homes. But with disturbing reports about the effects of nonstick coatings on the environment and our health, we decided to take another look at cast iron to see if it is worth bringing back into the kitchen.

Cast iron has always been known to have a few advantages over other types of cookware. Its material and weight give it excellent heat retention for high-heat cooking techniques such as frying and searing. You can use it on the stovetop or bake with it in the oven. Its durability is legendary—many people are still cooking with cast-iron pans handed down for generations. Unlike most consumer products, cast-iron pans actually

improve with time and heavy use.

Cast iron also has disadvantages. It's heavy and needs special care. It must be seasoned to prevent it from rusting or reacting with the foods you cook. Until its seasoning is well established, food will stick to it. You shouldn't use soap or steel wool on it, lest you strip off the seasoning.

When we went shopping for cast-iron pans to test, we noticed that although you can still find traditional cast iron, manufacturers have been tweaking the design and materials to maintain its principal benefits while diminishing some of the downside. They have begun coating the surface with a variety of materials to either begin the seasoning process for you or render it unnecessary. In some cases, new coatings bonded onto the cast iron make soap and even the dishwasher no longer off-limits.

One thing that didn't always get better with innovation is price: Traditional unseasoned cast-iron skillets are a true bargain, costing between \$11 and \$20. Most preseasoned pans are also fairly cheap, at \$15 to \$30, but we found fancier pans that hovered around the \$100 mark.

## Seasoned Wisdom

"Seasoning" is a word you hear a lot around cast iron. It might sound mysterious, but it's just oil and carbon residue from cooking that polymerize when heated and bond to the cast iron, forming

a smooth surface. You build up seasoning over time simply by cooking in the pan and doing routine maintenance (see "Taking Care of Cast Iron," page 26). Until recently, all cast-iron pans were purchased unseasoned. For our testing, we bought eight skillets, all about 12 inches in diameter: three factory-seasoned pans, three traditional unseasoned pans, and two with innovative finishes that required no seasoning. Le Creuset's skillet has a matte-textured black enamel interior, rather than the glossy cream-colored finish found inside the company's Dutch ovens. Newcomer Olvida offered the most unusual finish of all: nickel plating that made the pan shiny silver. The nickel finish is designed to be nonreactive and safe with metal utensils, soap, and the dishwasher. We followed manufacturer directions to prepare the unseasoned pans for cooking.

Our first goal was to see how the cast-iron pans stacked up against our favorite nonstick skillet, the All-Clad Nonstick 12-Inch Skillet (\$159.95), and our favorite stainless-steel skillet, the All-Clad Stainless 12-Inch Skillet (\$134.95), in a battery of cooking tasks.

One of the primary reasons to own a nonstick skillet is to cook eggs, so we started by rating each pan for sticking and ease of cleaning when cooking scrambled eggs. Next, we baked corn bread to test evenness of browning and oven performance. We pan-seared steak to test

## Cast-Iron History

Cast-iron cookware is formed by pouring molten iron into a mold made of sand, which is used only once, making each pan unique. The process originated in China in the 6<sup>th</sup> century B.C. and has been mostly unchanged for centuries, with the exception of machines that now pour the hot metal into the molds. Cast iron was the material of choice for cookware in America until the early 20th century, when aluminum became affordable. At one time, there were dozens of American companies making cast-iron cookware. Today, there are just two, Lodge and American Culinary (which sells pans under the Wagner label). Most of the pans we tested are made in China.—LM.



### OLDER, NOT BETTER

We purchased this 100-year-old Wagner pan from a collector for \$110. This pan had a nice patina and aced the scrambled egg test, but it is lighter than the modern cast-iron pans in our lineup and didn't perform as well in the searing and frying tests.

## AT A GLANCE: Nonstick vs. Cast Iron

Should you buy nonstick or cast-iron cookware? Here's how they stack up.

	NONSTICK	CAST IRON	NOTES
PRICE		✓	The best nonstick pans cost at least \$100. You can buy four good cast-iron pans for that money.
EASE OF USE	✓		Cast-iron pans are heavy and hard to lift and maneuver.
CARE	✓		Cast iron must be washed and dried carefully after each use and may require occasional reseasoning.
STICK-RESISTANCE	✓		Preseasoned cast iron comes close to nonstick, especially with repeated use.
VERSATILITY		✓	Cast iron is perfect for searing steaks and is ovensafe. Nonstick doesn't brown very well and can't go into a very hot oven.
DURABILITY		✓	Cast iron will last a lifetime or longer. Nonstick might last a few years—at most.

## Nonstick Surface Comes with Time

We found that all cast-iron pans will become more nonstick with time. While you might think this will take years, we found a significant difference after just a few weeks in the test kitchen.



### STICKY MESS

Scrambled eggs stick to the surface of a new preseasoned cast-iron skillet just out of the box.

### SEASONED PRO

After a few weeks, the same pan became more seasoned and released all but a few wisps of egg.

searing ability and made tomato-caper pan sauce with the resulting fond to see whether the cast iron would react with the acid in the sauce. We also shallow-fried breaded chicken cutlets while wiring the pans with a thermocouple to measure their responsiveness, conductivity, and heat retention—all reflecting their ability to evenly and crisply fry chicken.

In the egg test, the nonstick skillet was the runaway winner; the performance of the cast-iron pans ranged from mediocre to poor. The cast-iron pans were clearly superior in the corn bread tests, producing the brownest, crispest crust. They were on par with the stainless-steel pan in the steak and chicken tests. Though not unexpected, the results were somewhat disappointing.

However, we noticed that most of the cast-iron pans improved their ability to release food as our testing progressed. The seasoning (whether done by the manufacturer or us) was becoming thicker and more reliable. We decided to try the egg test again and were surprised by the dramatic improvement. Pans that had performed poorly in the first egg test did a decent job, and the preseasoned pans were now nearly as good as the nonstick pan in this test. Given such dramatic improvement over just a few weeks, we were not surprised when the cast-iron pans continued to become more “nonstick” with time.

At this point, we concluded that a cast-iron pan can combine the best traits of both nonstick and traditional cookware: You could make eggs and sear steak in the same pan. However, this endorsement comes with two important caveats—you must choose the right pan, and you must be willing to care for it.

### Casting Call

So which of these eight cast-iron pans is our favorite? There were several factors that distinguished the high-ranked models. First, they were seasoned by the manufacturer. Seasoning new pans in the oven creates oily fumes and a

mess as shortening drips off the pan. What's more, the unseasoned pans lagged behind the factory-seasoned pans in nonstick performance throughout our testing. Their lighter hue also produced lighter browning on the corn bread than the solidly black preseasoned pans. This year, Lodge discontinued selling unseasoned cast iron, stating that customers preferred the preseasoned pans by a wide margin. According to Lodge spokesperson Mark Kelly, the factory seasoning is “equivalent to seasoning it yourself 20 times.” We think this leg up is well worth a few extra dollars.

Second, evenness of cooking without hot spots or heat surges was very important. We wanted a pan that wouldn't cool off too much when food was added and would quickly climb back to the desired temperature. The Bayou Classic skillet had trouble maintaining steady heat, a major flaw for this type of pan. When we weighed the pans and measured the thickness of their bottoms, we discovered that the Bayou was the thinnest. Our top-ranked pans were up to twice as thick and all demonstrated more even distribution and retention of heat.

A third key factor was the diameter of the interior cooking surface, which made a difference when trying to accommodate multiple chicken breasts or steaks without crowding or steaming. Despite averaging 12 inches from rim to rim, the interior cooking surfaces of the pans ranged from 9¼ inches to 10¾ inches. We have a strong preference for the larger pans.

Weight was a thorny issue. While we preferred the bigger pans, they tended to be heavy and difficult for a smaller cook to manipulate in tasks such as swirling melting butter, pouring off a pan sauce, and flipping to release corn bread. Good handle design can help offset the problem. Our top-ranked pans all featured helper handles opposite the main handle. Two pans (Le Creuset and Lodge Pro-Logic) also featured larger main handles, which made the pans easier for smaller cooks to use.

Durability is one of the biggest virtues of cast iron. And while the Le Creuset pan performed very well, the enameled bottom of the pan also became chipped and scratched with routine use during testing. (You also can't use metal utensils with this pan or stack other pans inside it.) If you want a kitchen workhorse, this isn't it. The nickel finish on the Olvida pan was durable and worked as described, but it didn't offer significant enough advantage over preseasoned cast iron to warrant spending nearly \$100. While we often find that you get what you pay for, in the case of cast iron, you don't need to spend more to get more.

## Taking Care of Cast Iron

### Routine Maintenance

If you buy a preseasoned pan (and you should), you can use the pan with little fuss.

- Don't wash the pan with soap or leave it in the sink to soak. Rinse it out under hot running water, scrubbing with a brush to remove traces of food. (This is easiest if done while the pan is still warm.)
- Dry the pan thoroughly and put it back on the burner on low heat until all traces of moisture disappear (this keeps rusting at bay). Put a few drops of vegetable oil in the warm, dry pan and wipe the interior with a wad of paper towels until it is lightly covered with oil. Then, using fresh paper towels, rub more firmly to burnish the surface and remove all excess oil. The pan shouldn't look or feel oily to the touch. Turn off the heat and allow the pan to cool before putting it away.

### Heavy-Duty Cleaning

If you have stuck-on food or you've inherited a pan that is rusty or gummy, scrub it with kosher salt.

- Pour in vegetable oil to a depth of ¼ inch, then place the pan on a stove set to medium-low for 5 minutes. Remove pan from heat and add ¼ cup kosher salt. Using potholder to grip hot handle, use thick cushion of paper towels to scrub pan. Warm oil will loosen food or rust, and kosher salt will have abrading effect. Rinse pan under hot running water, dry well, and repeat, if necessary.

### Reseasoning

If cooking acidic foods or improper cleaning has removed the seasoning from your pan, it will look dull, patchy, and dry instead of a smooth, rich black. You need to restore the seasoning. We have found this stovetop method (rather than the usual oven method) to be the most effective way to season a cast-iron pan.

- Heat pan over medium-high heat until drop of water evaporates on contact. Wipe inside with wad of paper towels dipped in vegetable oil (hold towels with tongs to protect yourself). Wipe out excess oil and repeat as needed until pan is slick.

In the end, we preferred the classic design—with straight (rather than sloped) sides—and roomy interior of the preseasoned Lodge Logic Skillet (\$26.95). It performed well in all our cooking tests, its surface gained seasoning in the course of testing, and it will last for generations. If you are strong and don't mind a truly heavy pan, the preseasoned Camp Chef skillet is a solid performer for only \$17.99. It's our Best Buy.

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### BEHIND THE SCENES

- Cast-Iron Skillet Testing

### VIDEO TIPS

- What's the right way to maintain a cast-iron skillet?

**RATINGS**

GOOD: ★★★

FAIR: ★★

POOR: ★

# TESTING CAST-IRON SKILLETS

We tested eight cast-iron skillets, each approximately 12 inches in diameter, along with our top-rated nonstick and stainless-steel skillets. We compared the performance of these pans in a number of cooking tests. Mail-order sources for the top pans are on page 32.

**MATERIAL:** Metal and finish of pans.

**PRICE:** Retail price at Boston-area stores or online cookware sites.

**COOKING SURFACE:** Diameter of interior cooking surface measured (in inches) across the bottom of the skillet and thickness of pan bottom (in millimeters).

**WEIGHT:** Weight of skillet.

**EGGS:** We prepared scrambled eggs in each pan as the first test (after seasoning pans that required it), noting degree of sticking and ease of cleanup. We did it again after completing all other cooking tests, to observe whether pans became more seasoned during testing. Rating reflects performance in the second round.

**STEAK:** We pan-seared steaks and prepared a tomato-based pan sauce in each pan. We preferred pans that provided a well-browned crust and a good fond that led to a complex, flavorful pan sauce.

**CORN BREAD:** We put the pans in the oven; we preferred those that made corn bread that released easily from the pan and had a crisp, golden crust and moist interior.

**CHICKEN:** We looked for shallow-fried breaded chicken cutlets that were crisp and golden brown outside and moist inside, preferring pans that retained heat well, even when food was added, and did not get crowded.

**DESIGN:** We considered design features such as helper handles, weight, and shape, and performance features that helped make the pan easy to use and clean. Pans that required strong arms lost some points.

**HIGHLY RECOMMENDED**
**Lodge Logic 12-Inch Skillet**

**MATERIAL:** Cast iron, preseasoned  
**PRICE:** \$26.95  
**COOKING SURFACE:** diameter 10"; bottom thickness 5.66 mm.  
**WEIGHT:** 7.2 lb.


**PERFORMANCE**

EGGS: ★★★  
 STEAK: ★★★  
 CORN BREAD: ★★★  
 CHICKEN: ★★★  
 DESIGN: ★★

**TESTERS' COMMENTS**

Classic shape provided "plenty of room" in steak and chicken tests, but small handle made pan feel heavy when lifted. Eggs stuck "considerably" and took "tons of scrubbing" to clean the first time around but barely stuck and cleaned up easily the second time. Corn bread was crusty, with perfect release.

**The Camp Chef SK-12 Cast Iron Skillet**  
**BEST BUY**

**MATERIAL:** Cast iron, preseasoned  
**PRICE:** \$17.99  
**COOKING SURFACE:** diameter 9 3/4"; bottom thickness 10.37 mm.  
**WEIGHT:** 9.2 lb.



EGGS: ★★★  
 STEAK: ★★★  
 CORN BREAD: ★★★  
 CHICKEN: ★★★  
 DESIGN: ★★

Heaviest and thickest pan in the lineup was "a beast" to handle, but its heft made it shine in our cooking tests, where a consistent heat and deep sear were desirable. Right out of the box, we made scrambled eggs that didn't stick and corn bread that browned well and released perfectly.

**RECOMMENDED**
**Lodge Pro-Logic 12-Inch Skillet**

**MATERIAL:** Cast iron, preseasoned  
**PRICE:** \$29.95  
**COOKING SURFACE:** diameter 9 1/4"; bottom thickness 5.44 mm.  
**WEIGHT:** 7.4 lb.


**PERFORMANCE**

EGGS: ★★★  
 STEAK: ★★★  
 CORN BREAD: ★★★  
 CHICKEN: ★★★  
 DESIGN: ★★

**TESTERS' COMMENTS**

"Gorgeous" browning on the fried chicken and steak. Eggs improved dramatically, from "horrible sticking" to "very easy to clean" by the end of testing. Handle is wide and well balanced, and loop-shaped helper handle is easy to grasp. Curved (rather than angled) sides make sauces easier to scrape up.

**Le Creuset Round Skillet, 11-Inch**

**MATERIAL:** Enameled cast iron with matte-finish black enamel interior  
**PRICE:** \$109.95  
**COOKING SURFACE:** diameter 9 3/4"; bottom thickness 10.26 mm.  
**WEIGHT:** 6.5 lb.



EGGS: ★★★  
 STEAK: ★★★  
 CORN BREAD: ★★★  
 CHICKEN: ★★★  
 DESIGN: ★★

"Pretty" pan was well proportioned and easier to handle than others. Sloping sides made eggs and sauce easier to scrape up. Achieved "beautiful crust" on steak and corn bread. On first test, eggs stuck ferociously, but results improved dramatically in second round, with minimal sticking. Can't use metal utensils or stack anything inside without damaging enamel finish.

**Olvida 13-Inch Skillet**

**MATERIAL:** Cast iron covered with nickel plate  
**PRICE:** \$98.95  
**COOKING SURFACE:** diameter 10 3/4"; bottom thickness 9.87 mm.  
**WEIGHT:** 8.65 lb.



EGGS: ★★  
 STEAK: ★★★  
 CORN BREAD: ★★★  
 CHICKEN: ★★★  
 DESIGN: ★★

Chicken and steak browned beautifully in this heavy, roomy, silver-colored pan with "steady heating." The fond for pan sauce was a little light on flavor, almost like the nonstick skillet. Eggs stuck a moderate amount, without much change as testing progressed; pan cleaned up easily. Dishwasher-safe.

**RECOMMENDED WITH RESERVATIONS**
**Wagner Collection Skillet, 11 3/4-Inch**

**MATERIAL:** Cast iron, unseasoned  
**PRICE:** \$19  
**COOKING SURFACE:** diameter 9 3/4"; bottom thickness 5.82 mm.  
**WEIGHT:** 6.8 lb.


**PERFORMANCE**

EGGS: ★★  
 STEAK: ★★★  
 CORN BREAD: ★★  
 CHICKEN: ★★★  
 DESIGN: ★★

**TESTERS' COMMENTS**

Slightly less steady heating than higher-ranked pans, but good results shallow-frying chicken and searing steak. Eggs stuck moderately, even as testing progressed, and pan always required some scrubbing. Corn bread browned well but stuck to pan. Thumb-hold on handle is nice feature.

**Cajun Classic 12-Inch Cast Iron Skillet**

**MATERIAL:** Cast iron, unseasoned  
**PRICE:** \$16  
**COOKING SURFACE:** diameter 9 1/2"; bottom thickness 8.15 mm.  
**WEIGHT:** 5.85 lb.



EGGS: ★★  
 STEAK: ★★  
 CORN BREAD: ★★★  
 CHICKEN: ★★★  
 DESIGN: ★★

Straight-sided pan was crowded while shallow-frying two chicken breasts and when searing a pair of steaks. Steak pan sauce had a slight metallic taste, indicating the acid had reacted with the pan. Eggs continued to stick in second round but cleaned up easily.

**Bayou Classic Heavy Duty Cast Iron Skillet, 12 Inches**

**MATERIAL:** Cast iron, unseasoned  
**PRICE:** \$11  
**COOKING SURFACE:** diameter 9 1/2"; bottom thickness 4.06 mm.  
**WEIGHT:** 6.15 lb.



EGGS: ★  
 STEAK: ★★  
 CORN BREAD: ★★★  
 CHICKEN: ★★  
 DESIGN: ★★

Thin bottom caused steep temperature drop when chicken was added to hot oil. Steaks cooked unevenly and with unsteady temperatures (too hot, then too cool). Pan was crowded and began steaming steaks. Scrambled eggs stuck considerably throughout testing. Cooking surface was roughest of the lineup.