



Crispy Salt and Pepper Shrimp

From *America's Test Kitchen* Season 16: Sweet and Spicy Asian Specialties

WHY THIS RECIPE WORKS:

To keep our shell-on, deep-fried salt and pepper shrimp shells crispy and crunchy rather than tough, we employ several tricks. First, we choose shrimp that are not overly large (31 to 40 per pound), which ensures that the shells are thinner relative to those on more jumbo specimens. Next, we coat them in a thin layer of cornstarch to dry out their shells, which helps make them brittle upon frying. Then we cook them in small batches in very hot oil, which ensures that any remaining water in the shells is driven off. To season the shrimp and keep them moist, we toss them with salt and a little rice wine and let them sit briefly before dredging and frying. For an extra jolt of spiciness, after frying the shrimp, we also dredge and fry a couple of thinly sliced jalapeños. And to give the dish lots of depth, we add black peppercorns, Sichuan peppercorns, cayenne, and sugar to the coating and fry more of the same with ginger and garlic to make a flavorful paste. Finally, we toss the shrimp in this aromatic paste to unify the dish and keep the flavorings well distributed.

Serves 4 to 6

In this recipe the shrimp are meant to be eaten shell and all. To ensure that the shells fry up crisp, avoid using shrimp that are overly large or jumbo. We prefer 31- to 40-count shrimp, but 26- to 30-count may be substituted. Serve with steamed rice.

INGREDIENTS

- 1 1/2** pounds shell-on shrimp (31 to 40 per pound)
- 2** tablespoons Chinese rice wine or dry sherry
- Kosher salt
- 2 1/2** teaspoons black peppercorns
- 2** teaspoons Sichuan peppercorns
- 2** teaspoons sugar
- 1/4** teaspoon cayenne pepper
- 4** cups vegetable oil
- 5** tablespoons cornstarch
- 2** jalapeño chiles, stemmed, seeded, and sliced into 1/8-inch-thick rings
- 3** garlic cloves, minced
- 1** tablespoon grated fresh ginger
- 2** scallions, sliced thin on bias
- 1/4** head iceberg lettuce, shredded (1 1/2 cups)

INSTRUCTIONS

1. Adjust oven rack to upper-middle position and heat oven to 225 degrees. Toss shrimp, rice wine, and 1 teaspoon salt together in large bowl and set aside for 10 to 15 minutes.

2. Grind black peppercorns and Sichuan peppercorns in spice grinder or mortar and pestle until coarsely ground. Transfer peppercorns to small bowl and stir in sugar and cayenne.
3. Heat oil in large Dutch oven over medium heat until oil registers 385 degrees. While oil is heating, drain shrimp and pat dry with paper towels. Transfer shrimp to bowl, add 3 tablespoons cornstarch and 1 tablespoon peppercorn mixture, and toss until well combined.
4. Carefully add one-third of shrimp to oil and fry, stirring occasionally to keep shrimp from sticking together, until light brown, 2 to 3 minutes. Using wire skimmer or slotted spoon, transfer shrimp to paper towel-lined plate. Once paper towels absorb any excess oil, transfer shrimp to wire rack set in rimmed baking sheet and place in oven. Return oil to 385 degrees and repeat in 2 more batches, tossing each batch thoroughly with coating mixture before frying.
5. Toss jalapeño rings and remaining 2 tablespoons cornstarch in medium bowl. Shaking off excess cornstarch, carefully add jalapeño rings to oil and fry until crispy, 1 to 2 minutes. Using wire skimmer or slotted spoon, transfer jalapeño rings to paper towel-lined plate. After frying, reserve 2 tablespoons frying oil.
6. Heat reserved oil in 12-inch skillet over medium-high heat until shimmering. Add garlic, ginger, and remaining peppercorn mixture and cook, stirring occasionally, until mixture is fragrant and just beginning to brown, about 45 seconds. Add shrimp, scallions, and 1/2 teaspoon salt and toss to coat. Line platter with lettuce. Transfer shrimp to platter, sprinkle with jalapeño rings, and serve immediately.

TECHNIQUE

HOW FRYING MAKES SHRIMP SHELLS GOOD ENOUGH TO EAT

Most of us peel shrimp before eating it—and for good reason. Made of an elastic substance known as chitin, the shell can be tough. But great salt and pepper shrimp feature a fried shell as crispy—and appealing to eat—as the skin on fried chicken.

Interestingly, the process by which poultry skin and shrimp shells become crisp and edible is somewhat different. Raw chicken skin is flabby because its fat molecules (which make up 50 percent of its weight) coat its proteins, preventing them from cross-linking and firming up the texture; it also contains a lot of water. The high heat of frying takes care of both issues: It causes the fat to render, allowing the proteins to cross-link and become more rigid, and it drives off water, turning the cross-linked proteins brittle.

Chitin, on the other hand, does not break down when exposed to heat. Furthermore, its rubbery texture is entirely caused by moisture. To crisp the shells, it is necessary to dehydrate them as much as possible—something that can be accomplished only by a dry heat method like frying. (Moist methods will leave the shells chewy and flexible; think shrimp boil.) For this reason, we eschew a wet batter and instead toss the shrimp in seasoned cornstarch. This light, dry coating helps pull moisture from the shells, which evaporates in the hot oil, leaving them brittle and crisp. Note: Since older, larger shrimp have thicker, tougher shells, it's also important to start with relatively small shrimp; we prefer 31- to 40-count specimens.

BOILED = TOUGH

Moist heat makes shrimp shells rubbery.



FRIED = CRISP

Dry heat dehydrates—and, thus, crisps—the shells.

