

## TEMPURA



Most of us have had Tempura. It's the name given in Japan to usually fish or vegetables deep fried in a thin batter. According to the Oxford Companion to Food it is one of the most important and beloved methods for preparing food in Japan and are part of a large category of foods called *Agemono*.

The tempura cooking method and name is believed to have been brought to Japan from Portugal by Catholic missionaries in the 16th century. The Portuguese word *tempuras* means Ember Days, when meat was not eaten. This may be the basis for the descriptor. The cooking of fish and vegetables in a crisp batter as a result made these highly desirable and a good substitute for meat.

The Portuguese remained in Japan until 1639, when they were banished because the ruling shogun believed Christianity was a threat to Japanese society. As their ships sailed away for the final time, the Portuguese left an indelible mark on the islands: a battered

and fried green bean recipe called *peixinhos da horta* which many believe is the genesis of tempura. It has been a staple of the country's cuisine ever since.

*Peixinhos da horta* is a traditional dish in Portuguese cuisine. The name is literally translates as "Little fishes from the garden", as it resembles small pieces of colorful fish. *Peixinhos da horta* is usually prepared with green beans in a wheat flour-based batter that are then deep-fried. Other vegetables such as bell peppers and squash are also used. A recipe is included below. The deep-fried bites are normally eaten dipped in *tentsuyu*, a mixture of soy sauce, mirin and dashi with a little freshly grated daikon mixed in.

Tempura became important as street food in the early Edo period. With the increase of oil production, food stalls started selling tempura as a skewered snack food, alongside soba, sushi, and eel. By the late Edo and early Meiji era, tempura shops and restaurants emerged and started establishing their position as an important specialty cuisine. Today tempura has become something much more than just street food. You can find incredible tempura restaurants all over Japan, where all of your meals will be cooked by a highly trained chef who devotes his entire cooking career to tempura frying.

I was lucky enough to spend many years cooking in Japan, basically hustling California Food and Wine. The gift that I received from these visits was to learn deeply about the Japanese culinary arts. I was introduced to the recognition that Japanese bestow on artists of all kinds. They recognize them as "National Treasures." For good reason, because they are the experts and mentors of the next generation. Shouldn't we have a similar designation in America?

I had a chance to visit and sample the efforts of the "National Treasure Tempura Chef". It's a vivid memory. We entered his restaurant set up like a pristine sushi bar facing the chef. He was in front of a big copper cauldron of oil, gently moving on the surface. He would cook one small item at a time and give it to a guest. He'd follow this with each guest and the amazing thing was that he never repeated the same item. The mind blower is that each piece of tempura was presented on a small linen napkin in which no oil spot appeared. It was the skill of the chef to fry at the right temperature and time to accomplish this.

### **Tempura Batter**

To achieve a crispy texture, it's very important to minimize the gluten formation in the batter as much as possible. There are many variations on this batter but probably the most basic is flour plus egg and water in a one to one ratio by volume.

- 1 cup all-purpose flour (plain flour)
- 1 cold large egg
- A little over 6 ounces iced water

All-purpose flour is the most basic flour for tempura batter. Some cooks prefer using low-protein flours, such as cake flour or rice flour or a mix with corn starch. For convenience, there is also a pre-mix tempura flour available which works well and can be obtained at Asian markets.

Another variation that works well (adapted from Serious Eats) and is now my go-to batter:

- 1/2 cup cornstarch
- 1/2 cup all-purpose wheat flour or rice flour
- Kosher salt
- 1 large egg
- 1/4 cup vodka
- 1/2 cup ice-cold club soda

The reason for the vodka is that it inhibits the production of gluten, the network of proteins that forms when flour and water combine. The goal is to limit gluten development. Vodka yields a batter that can be mixed, and subsequently used, for far longer than a traditional batter, which will become doughier and heavier the longer it sits. Because vodka is about 60 percent water and 40 percent alcohol (which does not combine with protein to form gluten), it keeps gluten formation in check no matter how much you stir or how long you let it sit. It also allows you to thin out the batter, for a delicate crust that remains crisp for much longer than a typical flour-and-water mixture. Maybe more than you wanted to know!

I've included some variations in the recipes below.

Important tips:

- A **cold batter** is absolutely necessary – Make sure all your ingredients (flour, water, egg) and the bowl are cold. Keep your water refrigerated so it's icy cold. This helps the batter cling on to the surface of the ingredients.
- **Do not overmix the batter** - Use chopsticks to mix for 15-20 seconds; gluten will start to form when you mix too much. It's even helpful to leave some floury lumps in the batter. A lumpy batter contains more air and irregularities, which gives the tempura the light lacy texture that we're after. Aim for **consistency** – The finished batter shouldn't be too thin or too thick. Go for a heavy cream consistency.
- Make batter **right before** you deep fry to reduce the gluten activation.

## Frying Oil and temperature

**1. Choose a Good clean oil with a high smoke point.** We never want to cook with oil that has been “smoked” because its chemistry changes, and not for the good. If you smoke an oil, and we’ve all done it, toss it out and start over. Canola or refined peanut oils are good all-purpose oils for frying because of their relatively high smoke point and neutral flavor. Often in Japspan a good portion of the oil will include non-toasted sesame oil for flavor.

**2. The right temperature.** The sweet spot for frying is 350°F. You don’t want to go less than 350°F because the food tends to absorb more oil, making it greasy and heavy. There are all kinds of thermometers in the market, including a laser gun that can read the surface of the oil without a probe. Get one!

**3. Cold food with hot fat is best.** We’re often told in recipes to chill something that we’ve breaded or coated before frying but not told why. The “why” is that when cold food hits the hot fat, there is an immediate crisping of the surface, which helps to retard the absorption of oil. It won’t make the food impervious to the oil, but it does help to make the food less greasy.

## Tempura Dipping Sauce (Tentsuyu)

~~From the classic~~ This is the classic sauce to serve with tempura. It also works well as a marinade. Traditionally served with freshly grated daikon radish on the side. I’ve also included a recipe for Ponzu dipping sauce below which can be used universally.

1 teaspoon dashi powder (Hondashi brand is widely available and easily found on-line or in Asian markets)

3/4 cup water

2 tablespoons Mirin

2 tablespoons unseasoned rice vinegar

1 tablespoon soy sauce

1/2 teaspoon finely chopped ginger

Add the dashi stock powder and water in a small saucepan, whisk it together, and place it over medium heat.

Once it simmers, add the mirin, rice wine vinegar, and soy sauce. Let everything simmer for 2 minutes.

Remove the saucepan off the heat, add the ginger and let it cool to room temperature.

Leftovers can be stored in the refrigerator for up to 3 days. If the sauce is a little thick, add a dash of boiling water and whisk vigorously.

## **How often can I reuse the cooking oil?**

So, now you've made this investment in a pot of oil. It'd be a shame to throw it away if it can still be used. Truth is that you can use frying oil a few times. Key is to filter/strain it thru a fine mesh strainer or coffee filter between uses. One of the most interesting "cleaners" is gelatin. This is a technique familiar to French cooks making consommé.

After deep-frying, allow your cooking fat to cool to room temperature or slightly warmer. Measure into a small pot half a cup of water for every quart of used oil. Sprinkle it with one teaspoon of powdered gelatin per half cup of water and let the gelatin hydrate for a few minutes.

Bring the water to a simmer (you can do this on the stovetop or in the microwave), stirring, until the gelatin dissolves. Stirring vigorously and constantly, pour the gelatin/water mixture into the dirty oil. It should look very cloudy and relatively homogeneous at this stage. Cover the pot and place it in the refrigerator (or transfer the mixture to a separate container before refrigerating), then allow it to rest overnight.

The next day, pour the oil from the top of the pot or container into a separate clean, dry pot. Discard the disk of gelatin that remains. The clarified oil is ready to use.

You can make tempura with a wide range of fresh ingredients. Most common options include seafood, mushrooms, and vegetables.

## **Seafood Tempura**

All kinds of seafood are used with tempura. Some examples you'll find in tempura restaurants:

- Smelt (公魚, わかさぎ)
- Octopus (蛸, たこ)
- Oyster (牡蠣, かき)
- Salmon (鮭, さけ)
- Scallops (帆立貝, ほたてがい)
- Squid (烏賊, いか)
- White-fleshed fish such as cod and halibut (白身魚, しろみざかな)



Let's start with Shrimp Tempura, the most popular tempura. Also called Ebi no Tempura or Ebi Ten.

Usually, the deveined shrimp is made straight either by slashing the underside of the shrimp or using a wooden skewer. You don't have to do this but it is the tempura tradition.

### **SHRIMP TEMPURA**

Serves 4 to 6

Choose one of the batters above. My choice would be the one with vodka.

Peanut or vegetable oil, for frying

1 1/2 pounds extra-large (16 to 20 count) shrimp, peeled and deveined with tails on

Kosher salt, for sprinkling

Tentsuyu dipping sauce (recipe above)

Grated daikon (optional)

Preheat the oven to 200°F (90°C). Line a baking sheet with paper towels and place a large wire rack on another baking sheet.

In large Dutch oven, heat 2 inches of oil over medium-high heat to 375°F (190°C) on a deep-frying thermometer, or until it shimmers.

While the oil heats, make 2 shallow crosswise cuts about 1/4 inch (6 mm) deep and 1 inch (2.5 cm) apart on the underside of each shrimp. This will keep them from curling. In a large bowl, whisk the flour and cornstarch together. In a second large bowl, whisk the egg, vodka, and seltzer water together.

When the oil reaches 375°F (190°C), pour the liquid mixture into the flour mixture and whisk gently until just combined (it's okay if small lumps remain). Add half of the shrimp to the batter. Using tongs, remove shrimp from the batter a couple at a time, allowing excess batter to drip off, and carefully place in the hot oil.

Fry, stirring with a chopstick to prevent the shrimp from sticking together. Cook until light brown, 2 to 3 minutes. Using a slotted spoon or spider, remove the shrimp and place them on the wire rack. Sprinkle lightly with salt and transfer to the oven to keep warm.

Return the oil to 375°F (190°C) and repeat with the remaining shrimp. Serve immediately, with the dipping sauce.

## **Vegetables, Mushrooms & Seaweed Tempura**

For vegetable tempura, starchy root vegetables such as sweet potato, Kabocha squash, and lotus root are ideal. Other popular ingredients such as green beans (see introduction), Japanese mushrooms (maitake, shiitake and oyster), eggplants, zucchini, onions, okra, shiso leaves, and shishito peppers are also great for frying as are sea weeds such as nori. In rural Japan, cooks even fry up wild edible plants and shoots like dandelion and fiddleheads for tempura. Technique is the same for all.



## GREEN BEANS TEMPURA

You can use this recipe on just about any vegetable or fish. Fried green beans are light and to be honest just about everything tastes good deep fried. I really like to use a deep fryer for this recipe as it helps to keep the oil at a consistent temperature and it just seems like they cook faster and are less oily.

These fried green beans are simply delicious and was what the Portuguese introduced to the Japanese back in the 16th century.

1-pound green beans, stem ends removed  
3 cups oil for frying  
3/4 cup flour  
3/4 cups water  
1/2 teaspoon salt  
1 teaspoon baking powder  
2 eggs  
Salt and pepper to taste  
Tentsuyu dipping sauce



Bring a saucepan with a cup of water and a teaspoon of salt to a boil. Add the beans to the pot of boiling water and cook until almost tender but still slightly crisp, about 2 minutes.

Remove the beans once done and transfer them to a bowl with cold water for about a minute. Drain and place on paper towels to dry.

Now heat the oil in a deep fryer or a large saucepan to 375°.

Combine the flour, cup of water, eggs, baking powder, salt in a bowl and whisk until the batter reaches a smooth and even consistency.

One by one, dip the green beans in this batter and then immediately fry them in the fryer until golden brown. Once each one is done using tongs place them on paper towels to remove any excess oil.

Sprinkle the deep-fried green beans with salt and pepper to taste and serve with dipping sauce.



## **OKRA TEMPURA**

Serves 4 to 6

Follow the directions for the Green Beans tempura above. Additionally, lightly dust the okra with cornstarch and shake to remove excess before dipping in the batter.



### **MAITAKE (HEN OF THE WOODS) TEMPURA WITH PONZU DIPPING SAUCE**

Serves 4 – 6

My favorite mushroom. Cultivated versions are now widely available. Don't worry if the mushrooms break up a bit. You can fry all the little pieces which are my favorite nibbles. This recipe works well with other mushrooms too.

#### For the Ponzu Sauce:

1/2 cup fresh lime or lemon juice or a combination

2 tablespoons rice vinegar

1/3 cup Japanese soy sauce

2 tablespoons mirin  
2 tablespoons light brown sugar  
1/2 teaspoon Asian fish sauce (or to taste)

For the batter (another variation):

1 cups rice flour  
1 egg yolk  
1 cup club soda, chilled

Canola or peanut oil for frying  
1-pound Maitake mushrooms, sliced into 1/2-inch slices  
1 cup corn starch  
Sea salt  
Furikake\*, optional (Japanese seaweed and sesame seasoning)

In separate bowls whisk the Ponzu sauce and tempura mixtures to combine. Add 2 inches of oil to a deep saucepan or Dutch oven and heat to 375 degrees.

Dust Maitake with the cornstarch shaking off any excess. Dredge them in the batter and fry until golden brown, about 3 minutes. With a slotted spoon or spider transfer to a paper lined rack to drain. Sprinkle lightly with salt and furikake if using and serve warm with the dipping sauce.

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