

SIDEBAR 12: AT-HOME SOUS VIDE EGGS

Sous Vide Eggs

Ingredients

12 eggs, at room temperature

Directions

1. Place 3 eggs in a medium pot and cover with about 1 inch of water. Bring the water to a boil. Immediately turn off the heat and let the eggs cook for 10 to 15 minutes. Remove the eggs with tongs or a slotted spoon and set aside to cool; do not discard the water in the pot. These hard-boiled eggs will serve as a comparison to the other eggs.
2. Fill another pot (or kettle) with water and bring to a boil.
3. Measure the temperature of the water left over from boiling the eggs. If it is greater than 62°C (143.5°F), let it cool until it reaches this point. If it is lower than 62°C (143.5°F), add boiling water until it reaches this temperature.
4. Place 3 uncooked eggs in this 62°C (143.5°F) bath. Keep the bath between 58°C (136°F) and 62°C (143.5°F) for at least 20 minutes (or ideally, up to 40 minutes) by adding boiling water to the bath as it loses heat to the eggs and the surroundings. The temperature range doesn't need to be exact, but the bath should not sit above 62°C (143.5°F) for more than a few seconds at any given point. The target temperature for the final eggs will be the average of the upper and lower limits (60°C/140°F). It might be helpful to note how long it takes for the water bath to drop 1 degree Celsius so that you don't have to monitor the temperature of the bath constantly (the time will vary based on a number of factors, but a good starting estimate would be that 1 degree Celsius is lost every 1.5 minutes).
5. At the end of the elapsed time, remove one egg from the bath, cool it briefly under cold running water, and then crack the egg into a bowl. If it looks to be the appropriate consistency as described in the text, remove the other 2 eggs and set them aside. If not, leave the other 2 eggs in the bath for another 10 and 20 minutes, respectively, then run under cold water and crack into separate bowls.

- Repeat steps 3 and 4 using 3 more eggs in a water bath in the range of 61°C–65°C (142°F–149°F) to obtain eggs at a final temperature of 63°C (145.5°F), and then the remaining 3 eggs in a water bath in the range of 64°C–68°C (147°F–154°F) to obtain eggs at a final temperature of 66°C (151°F). Compare to the hard-boiled eggs from step 1. For each of the temperature ranges, estimate the internal temperature of the egg by comparing the doneness of the egg to the consistencies described in the text. 🌸

We have already mentioned that an egg cooked in a 57°C (134.5°F) water bath for a couple of hours will no longer contain dangerous microorganisms, but it still has a liquid yolk and is transparent white. If you do the same in a water bath that is only 3 degrees Celsius warmer (60°C/140°F), the egg white will just barely set and change color. Some of the proteins in the egg will have started to denature and coagulate, but not all of them. At 62°C (143.5°F), the egg white has changed color and holds together, but the yolk is still runny. (This is perfect for eggs Benedict.) At 64°C (147°F), the yolk has fully set but is soft and custardy. So within only 2 degrees Celsius, from 62°C to 64°C (143.5°F to 147°F), the yolk has gone from being completely liquid to completely set. The transition is so sudden that someone familiar with these transitions can tell the temperature to within a couple tenths of a degree. Is the water bath 63°C (145.5°F) or more like 63.3°C (146°F)? An egg will tell you.

A 64°C (147°F) egg is often considered the “perfect egg” and is used in restaurants all the time. Chefs use the controlled temperature technique described in the sidebar to produce large quantities of these “perfect” eggs that can easily be served to customers as they are ordered. But any egg can be considered “perfect” depending on your cooking plans. Only 1 degree Celsius higher, at 65°C (149°F), the yolk changes further and acquires the texture of Play-Doh. At 66°C (151°F), the egg yolk turns into a slightly firmer marzipan-like texture, which is ideal for molding into different shapes and rolling into thin sheets, which can’t be done