

Food Science for the Win

Scrambled Eggs Resource Guide



The kitchen is an ideal lab for experimenting and being curious while embracing your inner scientist. Explore the science of cooking scrambled eggs.

Basic Concepts

- **Proteins:** Long chains of amino acids that are chemically attracted to each other. In egg whites, proteins are curled, forming sphere-like shapes suspended in water.
- **Heat:** Source of energy that causes egg proteins to uncurl and bond to each other, creating a solidifying or coagulation effect.

Basic Equipment

- **Frying pan or skillet:** Flat-bottomed pan used for stovetop cooking like frying, browning, and searing. Pans are made from a variety of materials including stainless steel, cast iron, copper, and ceramic. Nonstick finishings are preferred when cooking scrambled eggs.
- **Rubber spatula:** Cooking utensil with rubber end to scrape, fold, and blend ingredients without scratching cooking surfaces.
- **Whisk:** Cooking utensil to combine ingredients in a mixture and incorporate air.

Basic Techniques

- **Whisking** with a whisk or fork combines the egg white proteins with the yolk while incorporating air.
- **Salting** enhances flavor and prevents egg proteins from bonding too tightly. When proteins bond, moisture is lost, causing eggs to leak liquid. Kosher salt is often used since it has larger grains, and therefore requires less. Sea salt is more course and table salt is more fine.

Suggested Resources

- **The Food Lab by J. Kenji López-Alt:** This is a very accessible science cookbook. The author provides amazing photographs with a wide variety of recipes and serves as a source of experimentation inspiration. The eBook is available on [Overdrive](#).
- **POV Extra-Creamy Scrambled Eggs (video) by J. Kenji López-Alt:** Explore the science of scrambled eggs from a chef's point of view; you may pick up a new scrambling technique.
- **The Science of Eggs from The Exploratorium:** [This guide](#), part of The Accidental Science series at the Exploratorium museum in San Francisco, CA, gives a snapshot of egg proteins.