

One-Hour French Onion Soup

A large chef's knife, a cutting board, and a huge bag of onions: the perfect way to learn how to slice, dice, chop, and peel. If you've never made French onion soup, it's easy if you have good knife technique. For a lovely demonstration of "the dog work" of knife technique and cutting onions, see the "Your Own French Onion Soup" episode of Julia Child's The French Chef: <http://cookingforgeeks.com/book/onionsoup/>. While some things have changed—better metallurgy in knives, for one—the fundamental techniques haven't. Watching her cook and teach is a joy.

Earlier recipes for soupe à l'oignon, like one from 1651, call for either water or beef broth; another old one suggests adding capers on top after cooking. Julia Child's version calls for homemade chicken and

beef stock, but while you should make your own stock at some point (see page 350), it takes more time than most of us have for an evening meal. My version here uses vegetable broth (I prefer the taste) and puts a microwave ("Imagine that!") to clever use.

Set out a cutting board and, next to it, a large microwave-safe container for sliced onions. Add **4 tablespoons (60g) of butter** to the container.

Slice **56 large yellow onions, about 2 pounds (900g)**. Start by cutting the root and stem ends off, slicing in half (top to bottom), and then peeling off the skin. Make sure to remove any tough outer layer, as it'll end up in your soup. Chop the onion halves into slices, transferring to

Why do onions make you cry?

We now know there's more to it than onion juices splatting up into your eyes. When the cells of the onion are crushed, an enzyme (alliinase) reacts with sulfoxides from the onion's cells to produce sulfenic acid, which stabilizes into a sulfuric gas (technically syn-propanethial-S-oxide) that can react with water to produce sulfuric acid. When you're cutting onions, the sulfuric gas interacts with the water in your eyes' lacrimal fluid to generate sulfuric acid, which triggers your eyes to tear up to flush the sulfuric acid.

Knowing the science behind why onions make you cry explains why some tricks to prevent crying work. There are three stages that lead to tears: alliinase reacting with sulfoxides, sulfuric gas reaching your eyes, and that gas interacting with your eyes. Interrupt any one of those stages, and you'll reduce an onion's lachrymatory properties. Here are a few methods:

Use a sharp knife and good technique. Using a sharp knife reduces the amount of liquid expelled from the onion tissue when cut; keeping the onion together as you slice it reduces the amount of sulfenic acid exposed to air.

Chill the onions first. Enzymatic reactions and volatile reactions are temperature dependent, so a good hour or two in the fridge or freezer will reduce the amount of sulfenic acid created. (Don't store onions in the fridge, though—see page 119.)

Wet your knife, onions, and cutting board. The sulfides that lead to tears happen to be water soluble, so a modest amount of water can help. This isn't a great solution, though—cutting slippery things is hard.

Keep the gases from reaching your eyes. Using a fan, cutting in a well-ventilated space, or even wearing ridiculous-looking swimming goggles will reduce the amount of sulfuric gas that can reach your eyes to trigger a reaction.

the container as needed to free up space on your cutting board.

Now for the unorthodox part. Cooking onions on the stovetop is a thermal balancing act between getting the stove hot enough to simmer the onions in their own liquid but keeping it cool enough to not dry them out and burn them. Microwaving onions may sound crazy, but it nails this balancing act perfectly: the microwave heats the water in the onions, causing them to simmer, but doesn't excite the drier parts and thus doesn't burn them. It still takes as long—30 to 45 minutes—but it's astonishingly simple.

Microwave the onions and butter for 15 minutes on high power, then stir them together. The onions should be translucent and wilted at this point, but not brown. Fetch out any bits of onion skin that accidentally made it in while you're at it. Nuke for another 15 minutes. Stir

again, and again fetch out any bits of onion skin that somehow made it in. The onions should be getting smaller in volume at this point, and perhaps beginning to turn brown. Microwave for additional 5-minute intervals until the onions have reduced way down and are mahogany brown.

Transfer the onions to a pot and stir in:

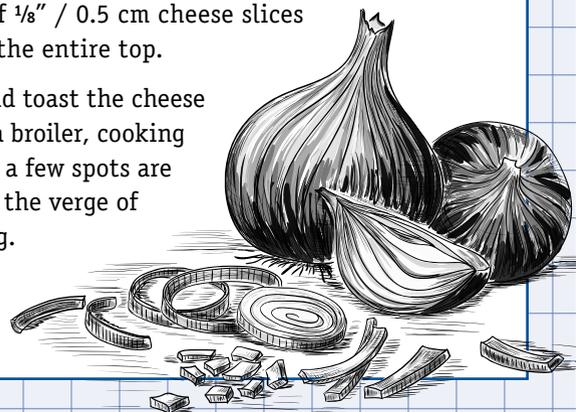
- 1 quart (~1 liter) unsalted vegetable stock**
- 2 tablespoons (30 mL) brandy, whiskey, or sherry (optional, but adds a very nice depth; use sherry if you like the sweetness)**
- 1 teaspoon (6g) salt**
- Freshly ground pepper**

Taste and adjust the seasoning as desired, taking care to not oversalt the liquid as the cheese will balance that out. You can store the soup at this point for several days in the fridge.

To serve, bring the soup to a simmer. Ladle it into oven-safe soup bowls (or a shallow oven-safe pan, if you're serving family-style) and cover it with **slices of dried, toasted bread**. (Do *not* skip drying and toasting the bread; you will end up with soggy wet goo. You can use stale bread and toast it; otherwise, dry the slices of bread out in a 300°F / 150°C oven and then toast them.)

Cover the bread with a generous layer of **sliced cheese that melts well**, such as **Gruyère**, **Fontina**, or **Emmental**, creating a layer of 1/8" / 0.5 cm cheese slices across the entire top.

Melt and toast the cheese under a broiler, cooking it until a few spots are just on the verge of burning.



How to cut an onion



Cut the onion in half and place the cut side down on a cutting board. Make two to three horizontal cuts into the onion, cutting toward the root stem side. Don't cut all the way through; leave the last part uncut so that the onion doesn't come apart.



Make a set of vertical cuts, again taking care to leave the root end uncut.



Rotate the onion and make a final set of vertical cuts, which will result in diced onion bits.