### **How to Temper Chocolate**

Any time you see glossy chocolates on display, or when you unwrap a bar of chocolate, the chocolate that you're looking at has been tempered. If you just melt chocolate and use it for dipping or making chocolate bars, it will have a dull color and may have white spots or streaks when it cools. This is called "blooming." It will also be more brittle and lack the classic melt-in-your-mouth texture of tempered chocolate.

Below, I have included a traditional method of tempering chocolate (Professional Method), which is labor-intensive and requires some skill in working with chocolate. Following that is a work-around (Quick Method) that will generally give you somewhat glossy chocolates without the same level of work (though they do take much longer to harden). An alternative to tempering is to dip things in melted chocolate and then roll them in another topping, like cocoa powder or chopped nuts, or drizzle with white chocolate to hide chocolate that appears dull or spotty.



## How to Temper Chocolate: Professional Method

|           | Dark Chocolate              | Milk or White Chocolate     |
|-----------|-----------------------------|-----------------------------|
| Melting   | 122° to 131°F (50° to 55°C) | 113° to 122°F (45° to 50°C) |
| Tempering | 80° to 84°F (27° to 29°C)   | 78° to 82°F (26° to 28°C)   |
| Rewarming | 86° to 89°F (30° to 32°C)   | 84° to 86°F (29° to 30°C)   |

#### **INSTRUCTIONS**

Melting: Chop the chocolate into small pieces and place in a metal bowl set over a hot water bath (or place in glass bowl and microwave in 15-second intervals, stirring in between), reserving a few pieces for seeding in the next step (seeding is optional). As the chocolate warms, stir constantly. If the chocolate gets overheated on the bottom, it will separate into brown chunks and oil. Heat until the chocolate reaches the **melting** temperature.

Tempering: Once the chocolate has reached the melting temperature on the chart above, remove from the water bath. You can either continue stirring occasionally until the temperature is in the correct range for this step or speed up the process with seeding, which is when a few bits of the reserved chocolate are added and stirred until completely melted. Repeat until the chocolate has come down to the correct **tempering** temperature.

Rewarming: Stirring constantly, briefly rewarm the chocolate over the water bath until the chocolate has reached the correct **rewarming** temperature. This may only take a few seconds. It is the quickest of all the steps. Remove the chocolate from the heat when it reaches the upper end of the rewarming temperature range. Dry the bottom of the bowl with a towel to prevent drips getting into the chocolate, which will ruin the temper.

Keep the hot water bath steaming and return the bowl to sit over the hot water bath if it cools too much while dipping. Remove from heat and dry the bottom of the bowl each time the chocolate returns to the upper end of the rewarming temperature range.

NOTES

- Don't let even one drop of water get into your tempered chocolate, as it will ruin the temper permanently.
- If your chocolate gets outside of the temperature range on any of the steps, you'll need to start over. (You can usually use the same chocolate when you start over and still get good results.)
- If your chocolate gets too hot, it will separate into a dark chunky layer at the bottom with a layer of oil sitting on top. This cannot be fixed, and the chocolate must be discarded.
- To view the video for this recipe, and all electronic resources associated with the Culinary Medicine Curriculum, please see <a href="https://bit.ly/culinarymededucation">https://bit.ly/culinarymededucation</a>.

# How to "Temper" Chocolate (Quick Method)

Serves: 16
INGREDIENTS

1 pound (450 grams) of dark chocolate, chopped into 1-inch or smaller pieces

2½ tablespoons (37.5 milliliters) refined, filtered coconut oil,\* optional

#### **INSTRUCTIONS**

1. Place chopped chocolate and coconut oil (if using) in a metal bowl set over a hot water bath (or place in glass bowl and microwave in 15-second intervals, stirring in between). As the chocolate warms, stir constantly. If the chocolate gets overheated on the bottom, it will separate into brown chunks and oil (and will be ruined). Warm until completely melted. Remove from heat and use for dipping.

NOTES

- \*You can use any coconut oil, but the refined, filtered types have the least coconut flavor. If you want the chocolate to taste like coconut, then use unrefined.
- You can omit the oil, but there will be less shine and more white spots on the chocolate. If omitting the oil, add a coating or decoration to the chocolate to hide the appearance—cocoa powder, chopped nuts, or freezedried fruit blended to a powder work well for this.
- This recipe will provide enough chocolate to dip 1 to 1½ pounds (450 to 675 grams) of strawberries, truffles, or other bite-sized candies.

Nutritional Info (per serving, 1 ounce [30 grams] of dark chocolate—not including dipped ingredients): Calories 136, Total Fat 8.5 g, Saturated Fat 5 g, Cholesterol 0 mg, Sodium 3.1 mg, Total Carbohydrate 18.1 g, Dietary Fiber 1.7 g, Sugars 15.5 g, Protein 1.2 g, Vitamin A 0%, Vitamin C 0%, Calcium 1%, Iron 5%

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