

## DIY Bittersweet Chocolate Bar

*A bar of bittersweet chocolate is typically 54–80% cocoa. Both EU food law and the US FDA's definition merely lump bittersweet bars in with semisweet chocolate ("not less than 35 percent by weight"), but as a guideline, they're roughly 30% cocoa fat, 40% cocoa powder, and 30% sugar. When you see a bar of chocolate that says 70% bittersweet chocolate, that's the amount of cocoa fat and cocoa powder. One manufacturer's 70% might be 30 / 40% fat/powder; another's could be 35 / 35%. Because cocoa powder is bitter—cocoa fat tastes something like shortening—a bar made with less cocoa powder and more cocoa butter will taste sweeter, even though both bars are 70%.*

*Cocoa powder, cocoa fats, and sugar are mixed together in a process called conching. Rodolphe Lindt, a Swiss entrepreneur, developed the conching process based on equipment he'd purchased from a spice mill back in 1879. The mixture is kept warm while being rolled between grindstones for anywhere from 6 to 72 hours, with longer times producing smoother textures by breaking up the sugar crystals and cocoa solids. To see what chocolate was like before Lindt's improvements, try making your own small sample of unconched chocolate.*

In a small bowl, melt **1 tablespoon (9g) of cocoa butter**—assuming small pellets—either in a pan of simmering water or the microwave.

Remove the butter from the heat or the microwave and add **2 teaspoons (10g) of sugar** and **2 tablespoons (12g) of cocoa powder**. Using a spoon, mix thoroughly, stirring for 1–2 minutes.

Unsweetened chocolate is generally not conched (a few premium brands do conche theirs, as the cocoa solids still benefit). If you can't find cocoa butter, try using **7 parts unsweetened chocolate to 3 parts sugar** instead.

If you like, temper the chocolate following the temperature guidelines described in this section. Transfer it to a flexible mold or parchment-paper-lined container and allow it to cool in the fridge.

You'll notice when tasting this chocolate that the initial flavor is astringent and bitter, followed by a sweeter, possibly floral taste as the sugar dissolves in your mouth. Using superfine sugar instead will give a smoother texture, but the chocolate won't have the same mouthfeel as a conched bar.

Try experimenting by adding other ingredients—**roasted nuts, cinnamon, chili flakes, ginger, cocoa nibs, sea salt, ground coffee beans, mint leaves, bacon**. All the flavored bars of chocolate you see at the stores are simple to make!



*A close-up view of the difference between commercially conched chocolate (top) and this DIY unconched chocolate (bottom).*