# CHOCOLATE 101

Chocolate is made from cocoa beans harvested in pods from cocoa trees. There are various different strains of cocoa, which give different flavor profiles. The three most common are trintario, forestero, and criollo.

## **Chocolate Origins**

33% Ivory Coast

25% rest of the world

17.5 % Ghana

7.45% Indonesia

5.6% Equador

5.3% Brazil

1.8% Peru

1.66% Mexico

1.4 % Dominican Republic

1.1% Colombia

# **Chemistry of Cocoa**

Cocoa has over 600 different flavor-carrying substances and the cocoa butter melts at mouth temperature.

It contains sugar and stimulants such as caffeine and theobromine. These affect the brain's pleasure centers and cause the 'chocolate high'.

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# **Know Your Chocolate**

There are two main types of chocolate – dark and milk. The differences are how the chocolate is made, the levels of cocoa solids, cocoa fat (butter), sugar and milk powder it contains. White chocolate is technically not chocolate because it doesn't contain cocoa solids.

### 100% Cocoa Chocolate

Made only from 100% cocoa beans, with no added sugar, and only a little bit of cocoa butter. This chocolate is very intense and bitter. In cooking, it is mainly used in stews and roasted meats.

## **Dark Chocolate**

This type of chocolate has 35-99% cocoa mass, some added sugar (1-65%) and a little milk powder (1-12%). The higher percentage of cocoa, the more intense the flavor. In cooking, it is best used in brownies, cakes and mousses.

## **Milk Chocolate**

Milk chocolate is the most popular chocolate for eating. It can come with added fruit, nuts or spices. The cocoa mass can be between 20-35%, sugar 25-55% and milk powder 25-35%. Low quality chocolate usually contains vegetable oil instead of cocoa butter. Best used in baking, like cookies or muffins.

## White Chocolate

White chocolate does not contain any cocoa solids, which is what gives chocolate it's dark color and chocolaty taste. It only contains cocoa butter (30%), giving it a mild flavor, the rest comes from added sugar (40%), milk powder (30%) and vanilla flavoring.

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# How To Melt Chocolate

#### The microwave method

**Step 1:** Chop chocolate into small pieces and place in microwave-safe bowl.

**Step 2:** Microwave at 70% power for 1 minute. Remove from microwave and stir.

**Step 3:** Continue to microwave in 30 second increments, stirring frequently, until the chocolate has fully melted.





#### The stovetop method

**Step 1:** Add chopped chocolate to the top of a double boiler over gently simmering water.

**TIP:** If you don't have a double boiler then a metal bowl over a saucepan works too. Just make sure the bottom of the bowl doesn't touch the water in the pan.

**Step 2:** Stir gently and frequently until the chocolate has completely melted. Use a rubber spatula to scrape the sides of the bowl as you stir.

#### The slow cooker method

**Step 1:** Fill a slow cooker one-third of the way with hot water. Set the heat to high, leaving the lid off.

**Step 2:** Place mason jars filled with chopped chocolate into the water.

**Step 3:** Leave for about 30 minutes, uncovered, until chocolate is melted.



Source: The Science of Cooking: Every Question Answered to Perfect Your Cooking by Stuart Dr. Farrimond

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