

# The Secrets of Chocolate

## By Kinara Goyal

© Copyright 2021 by Kinara Goyal

Cover image by **Charisse Kenion** on **Unsplash** 

## The Secrets of Chocolate

It began with my mother sending me an email with a video on how chocolate is made. I watched the video, I did some more research and here is what I learned.

### 1. History of Chocolate

Cocoa beans were first found in central America 5,000 years ago. It is believed that the <u>Olmecs</u> from Mexico were the first to use cocoa. They used it to make a hot and spicy drink, which is quite similar to what we call hot chocolate.

Then the Olmecs passed chocolate on to the central Americans called the Mayans. The Mayans not only drank the spicy drink of the Olmecs, but also consumed it during religious ceremonies and before making large financial transactions.

Chocolate was very important to the Mayans, yet it was available to the rich and poor alike.

Once the Aztecs took over Mexico, they started using chocolate as currency, and they considered it more precious than gold. They believed it was a gift from the gods.

While the Aztecs continued to rule, <u>Christopher</u>
<u>Columbus</u> crashed into one of their ships which were
full of cocoa beans, and he brought them home to Spain.
Once chocolate reached Spain, the Spanish started
making what we call hot chocolate

In the 1500's other European countries such as France started exploring central America and also discovered cocoa beans. Soon, chocolate had reached all of Europe.

In Europe, chocolate was only for the rich and wealthy. In 1828 a new way to use cocoa beans came up. A Dutch chemist named Coenraad Johannes van Houten found that if chocolate was mixed with some alkaline salts and then powdered it would be easier to mix with water. The Europeans called this 'Dutch Cocoa'. And this is how cocoa powder was invented.

After Dutch cocoa, chocolate was made much cheeper and available to most of the public.

Chocolate first came to the thirteen colonies in America when a Spanish trade-ship came to Florida in 1641. Soon after that, in 1682, the first chocolate house was

opened there. By 1773 chocolate was a common dish in all of North America.

In 1876, a chocolatier named Daniel Peter added dried milk powder to chocolate making milk chocolate. After a little help from a friend Hennri Nestle he got milk chocolate into the market. But Daniel's milk chocolate was very hard and would not easily melt. So in year 1879 chocolatier Rudolf Lindt managed to make chocolate with the melt-in-your-mouth texture.

Soldiers were payed in chocolate during the Revolutionary Wars. Also, during World War II, soldiers who fought were offered chocolate as rations.

## 2. Growing and Fermenting Cocoa in Current Times

## 1. Growing

Cocoa cannot grow in farms. It needs the rain-forest climate and trees to be able to grow properly. This is because the pollinators of the cocoa flower are dust-speck size midges that only live in rain-forests. Cocoa flowers can only be pollinated during the day.

The midges aren't very good at pollinating the cocoa flowers, and total successfully pollinated blossoms are less than one in twenty. To increase the number of pollinated flowers, farmers use minuscule paintbrushes to pollinate them.

### 2. Fermenting

The fruits of the successfully pollinated flowers are opened and the beans are collected. They are wrapped in banana leaves, and kept in boxes. It needs to be dark in the boxes, so that the bacteria and fungi can thrive.

First in the process, yeast fungi start eating away at the beans. As they do this, the ethanol level rises, until all the bacteria and fungi die out. Only *Lactobacillus* and *Azotobacter* which are two types of bacteria, thrive in the new environment. The cocoa is left for 6 days to ferment.

If chocolate is with from under-fermented beans, then it will look gray and taste sour.

## 3. Making Chocolate

Chocolate is made at a chocolate factory.

To start the process, the good beans are separated from the stems, broken or open beans. The good beans are taken and roasted for 20mis at 250°. This process kills the bacteria in the beans and makes them easier to break. Once they are roasted, the beans are broken. The

shells are thrown away and the nibs are removed. The nibs are put into a machine that separates the cocoa butter from the cocoa solids.

To make dark chocolate and milk chocolate the cocoa solids and a few other ingredients are put together. The difference between dark and milk chocolate is that milk chocolate has more sugar and milk than dark chocolate. But white chocolate is completely different. It is made with the cocoa butter, milk and sugar but not the cocoa solids.

#### 4. Fun Facts About Chocolate

- The biggest chocolate in the world weighed about 12,000pounds.
- Chocolate is made in over 600 different favors
- It takes 400 beans to make 1 pound of chocolate.
- It took 8 years to come up with a recipe for chocolate.
- Dark chocolate contains heart healthy antioxidants.
- There is a type of cocoa bean which is red in color and tastes like wild berries. It is used to make a type of chocolate called ruby chocolate.