

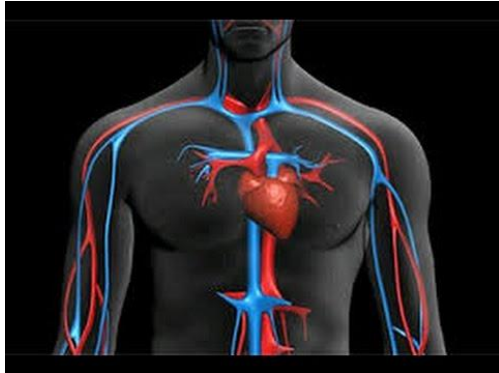


# Chocolate

Everyone likes it, but nobody knows it well.

# Characteristics

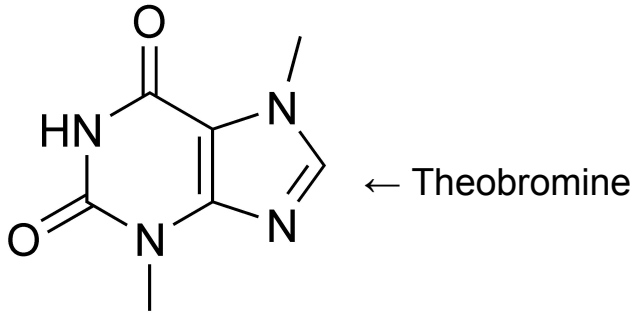
**Chocolate** is a food that improves the function of the organism, and the cardiovascular system, preventing hypertension. The Mayas, Aztecs and other American tribes used it as a medicinal source because of the benefit for the organism and to help ease stomach ache. Chocolate contains polyphenols (a substance found in food, which also has antioxidant properties), alkaloids and theobromine.



# Theobromine and cocoa.

**Theobromine:** A stimulant of the central nervous system which relaxes the bronchial musculature and makes you feel like going to the toilet. It produces pleasure. When you consume it it forms a part of the methylxanthines like caffeine and theophylline.

There are two types of cocoa; unprocessed cocoa which contains 4 % theophylline, and processed cocoa, which contains 1,5 % of theophylline, though also this depends on the type of chocolate.



# Ingredients and composition

## Ingredients

Sugar, cocoa fat, cocoa grades, milk powder, lactosuero in powder, emulsifier: lecithin of soybean, aromas. This product does not contain gluten nevertheless, it might contain traces of hazelnuts and/or almonds.

## The chemical composition of chocolate is:

- Fats: Abundant in chocolate = 55 %
  - After processing it only has 25%
  - Fusion point 34°C
- Fat rich cocoa fatty acids
- Palmitic acid 24.4%
- Stearic acid 35%
- Fats like lard
- Antioxidants
- Oleic Acid 38.1%



# Nutrition information:

Energetic value	2245-537	kJ/kcal
Fats	32	g
- Saturated	20	g
Carbohydrates	55	g
- Sugars	54	g
Proteins	7.5	g
Salt	0.35	g

# Process

1. Plant cocoa trees, and when they have fruit, harvest them
2. Then remove the cocoa beans.
3. Place all seeds on top of some palm leaves and cover them with others, so that they ferment.
4. Afterwards, take them to an area in the sun, and leave them there until they dry completely.
5. They carry them by boat to the countries where the chocolate factories are located. Like Nestle, Valor ...
6. At the factory, the beans are crushed until they are about the size of sugar or salt.
7. This is a very important step, because the cocoa beans are warmed while being spun on a lathe. This is where cocoa acquires its characteristic scent.
8. Afterwards, the hot cacao beans are transferred to rollers, where they acquire their characteristic texture, and become liquid.

# Process

- 8.1** A procedure called treatment of milk is performed. It consists mixing fresh milk, collected daily, with sugar and it is concentrated before mixing with the cocoa paste.
- 9.** Other ingredients are added, depending on the type of chocolate that we want to create.
- 10.** The chocolate is passed for the last time through some rollers to get smaller particles.
- 11.** Vanilla aromas are added, and it is kneaded for hours.
- 12.** Tempering is the process of controlled cooling of the chocolate to allow perfect crystallization of the cocoa butter.
- 13.** If you want to make chocolate with other ingredients: hazelnuts, almonds, biscuits ... now is the time to incorporate them.
- 14.** Finally, it is time to give the chocolate the desired shape by pouring it into molds (tablets, chocolates, etc.) which are then passed through a cooling tunnel.

天地