

The Chemistry of Chocolate

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University of Zurich, Irchel Campus

What is it about chocolate? No other food rivals its ability to tantalize and tempt us, and it is said that chocolate is a surrogate for love, a gift provided to us by the Aztec gods. This lecture will initially explore the procedures that transform the fruits of the cocoa tree (*Theobroma cacao* L.) to the chocolate products available today. A great deal of science and engineering is necessary to process the cocoa beans to control the texture and flavor of the final product. The macroscopic properties of the complex mixture that is chocolate will be related to the molecular structure of its ingredients. Later we will explore the active components, such as theobromine, that are responsible for the stimulating properties of cocoa products. Are there negative health effects related to chocolate? Is there really "death by chocolate"?