

## Molecular Gastronomy

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**Introduction.** With changes in how we cook and eat the fields of culinary arts and culinary science appear now to be merging into one. Interest in food science has grown in recent years because of the increasing awareness of the vital role of food in the health, well-being, and economic status of individuals and nations and people's curiosity and desire to try new and innovative food dishes. Food science is the study of the chemical composition of food and food ingredients; their physical, biological and biochemical properties and the interaction of food constituents with each other and their environment.

**Materials and methods.** When people hear the words molecular gastronomy or molecular cuisine for the first time they often mistakenly view it as unhealthy, synthetic, chemical, dehumanizing and unnatural. This is not surprising given that molecular gastronomy often relies on fuming flasks of liquid nitrogen, led-blinking water baths, syringes, tabletop distilleries, PH meters and shelves of food chemicals with names like carrageenan, maltodextrin and xanthan.

**Results.** The truth is that the "chemicals" used in molecular gastronomy are all of biological origin. Even though they have been purified and some of them processed, the raw material origin is usually marine, plant, animal or microbial. These additives have been approved by EU standards and are used in very, very small amounts. The science lab equipment used just helps modern gastronomy cooks to do simple things like maintaining the temperature of the cooking water constant (water bath) , cooling food at extremely low temperatures fast (liquid nitrogen) or extract flavor from food (evaporator). There is still some debate out there about the healthiness of molecular gastronomy but I personally believe there are far bigger health issues in the everyday food we consume. In the end, you are not going to be eating liquid pea spheres every day anyway.

Molecular Gastronomy is the application of scientific principles to the understanding and improvement of small scale food preparation. The term was invented by the Hungarian physicist Nicholas Kurti in a 1969 presentation to the Royal Institution called "The Physicist in the kitchen", and popularized by his collaborator the French scientist Hervé This.

**Conclusions.** There are a number of good, substantive terms for naming this exploration of the edible world. Experimental cooking. Open cooking. Modernist cuisine. And the word gastronomy itself doesn't need faux dignifying or seriousing-up anymore. It's been current for two hundred years, goes back two thousand, and has come to encompass everything to do with the preparation and enjoyment of food and drink, from the chemical to the historical to the psychological and philosophical. It comes from the Greek word for "belly," which came from an Indo-European root meaning "devour." Gastronomy, it's got the molecules covered.

### References:

1. Molecular Gastronomy: Exploring the Science of Flavor (Arts and Traditions of the Table: Perspectives on Culinary History)