MOLECULAR GASTRONOMY
(МОЛЕКУЛЯРНА КУХНЯ)

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У доповіді йдеться про історію створення молекулярної кухні та її еволюцію, а також про технологію приготування страв, необхідні інструменти та інгредієнти.

Molecular gastronomy, the scientific discipline concerned with the physical and chemical transformations that occur during cooking. Molecular cuisine is a modern style of cooking, and takes advantage of many technical innovations from the scientific disciplines. The term «Molecular and Physical Gastronomy» was coined in 1988 by late Oxford physicist Nicholas Kurti and the French chemist Hervé This. In 1992, it became the title for a set of workshops held in Erice, Italy (originally titled «Science and Gastronomy») that brought together scientists and professional cooks for discussions about the science behind traditional cooking preparations. Eventually, the shortened term «molecular gastronomy» became the name of the approach, based on exploring the science behind traditional cooking methods.

Molecular gastronomy experiments have resulted in new innovative dishes like hot gelatins, airs, faux caviar, spherical ravioli, crab ice cream and olive oil spiral. Ferran Adria from El Bulli restaurant used alginates to create his system of spherification which gelled spheres that literally burst in your mouth. Heston Blumenthal from The Fat Duck restaurant discovered the ability of fat to hold flavor and created a dish that had three flavors – basil, olive and onion – with each taste being perceived in sequence. The potential of molecular gastronomy is enormous. It is revolutionizing traditional cooking and transforming dining into a surprising emotional and sensory experience. 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.

Techniques, tools and ingredients are: carbon dioxide source, for adding bubbles and making foams; maltodextrin – can turn a high-fat liquid into a powder; transglutaminase – a protein binder, called meat glue; edible paper made from soybeans and potato starch, for use with edible fruit inks and an inkjet printer and using ultrasound to achieve precise cooking times.