

Vitalism is the doctrine, often advocated in the past but now rejected by mainstream science, that "living organisms are fundamentally different from non-living entities because they contain some non-physical element or are governed by different principles than are inanimate things".

Where vitalism explicitly invokes a vital principle, that element is often referred to as the "vital spark", "energy" or "élan vital", which some equate with the "soul".

Vitalism has a long history in medical philosophies: most traditional healing practices posited that disease results from some imbalance in vital forces. In the Western tradition founded by Hippocrates, these vital forces were associated with the four temperaments and humours; Eastern traditions posited an imbalance or blocking of qi (or prana).

In Europe, stoic pneuma influenced medieval physics, helping to shape later aether theories and in the 17th century, modern science responded to Newton's action at a distance and the mechanism of Cartesian dualism with vitalist theories: whereas the chemical transformations undergone by non-living substances are reversible, so-called "organic" matter is permanently altered, by cooking, for example.

Jöns Jakob Berzelius, one of the early 19th century "fathers" of modern chemistry, argued that a regulative force must exist within living matter to maintain its functions.

Vitalist chemists predicted that organic materials could not be synthesized from inorganic components.

However, Friedrich Wöhler synthesised urea from inorganic components in 1828. However, contemporary accounts do not support the common belief that vitalism died when Wöhler made urea.

This Wöhler Myth, as historian of science Peter J. Ramberg called it, originated from a popular history of chemistry published in 1931, which, "ignoring all pretense of historical accuracy, turned Wöhler into a crusader who made attempt after attempt to synthesize a natural product that would refute vitalism and lift the veil of ignorance, until "one afternoon the miracle happened".

Further discoveries continued to obviate the need for a special "vital force".