

# [Iv](https://assignbuster.com/iv/)

[Science](https://assignbuster.com/essay-subjects/science/), [Chemistry](https://assignbuster.com/essay-subjects/science/chemistry/)

Formaldehyde Formaldehyde Formaldehyde has negative effects to the liver, the immune system, the respiratory system and many other organs in the body. For the purpose of this paper, the effects of the chemical on the first three body organs as mentioned in the previous statement.
Formaldehyde (FA), according to Cikmaz et al. (2010) has potential carcinogenic and cytotoxic effects. A study by the authors on the effects of the substance on the liver was done, experimenting on rats. In the study, using 18 albino rats for a divergent period of three groups clearly indicated that the substance affects the liver in various ways. There were histopathological changes that indicated destroyed liver tissues. The three groups of rats, which differed in the exposure period, proved that the effects were directly related to the period of exposure. Some of the effects were loss of cytoplasm and the nucleus was hyperchromatic (Cikmaz et al., 2010).
According to Fischer (1905), inhalation of FA gas in whichever quantities leads to bronchitis and pneumonia. The substance, as per this article is so poisonous that it can cause immediate death on ingestion. Exposure of FA to humans causes shortness of breath. When the concentrations increase the nose is obstructed leading to choking and pulmonary edema. Later studies show that the substance creates endogenous proteins that can draw negative immune responses that are closely associated with hypersensitivity of the immunological system (Thrasher, Broughton and Madison, 1990).
In conclusion, according to the discussion posed above, formaldehyde affects the liver, the immune system as well as the liver.
References
Cikmaz S, Kutoglu T, Kanter M and Mesut R. (2010). Effect of formaldehyde inhalation on rat livers: a light and electron microscopic study. Toxicol Ind Health, 26(2): 113-9.
Fischer, M. (1905). The toxic effects of formaldehyde and formalin. Fischer, 6 (4-6): 487.
Thrasher, J., Broughton, A. and Madison, R. (1990). Immune activation and autoantibodies in humans with long-term inhalation exposure to formaldehyde. Arch Environ Health, 45: 217-223.