

Iron is one of the important biogenic trace elements and its role in the mammalian body is indispensable. In nature there is another element with similar characteristics. Iron is part of a series of compounds that provide key functions such as cellular respiration and oxygen transport to tissues. It is also important for cell proliferation and differentiation, the regulation of gene expression and applies also in the immune system.

Given that the effects of iron accumulation in genetic hemochromatosis have been investigated in detail, in recent years, increasing attention and concern about the consequences of iron accumulation also in other diseases. Because the results of previous studies are inconclusive and often mutually contradictory, the aim of this work to analyze and clarify the relationship between HFE gene mutations and iron metabolism in the pathogenesis and progression of some skin and chronic liver disease among genetic hemochromatosis.