# 296. PATHOPHYSIOLOGY OF IRON DEFICIENCY.

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**Introduction:**Iron deficiency is the primary cause of the anemia worldwide, affecting especially children and adolescents whose body is still growing, pregnant and nursing women, vegetarians and meat-free food ration. Iron deficiency leads to the development dystrophy and atrophy processes of the digestive mucosa, that is followed by maldigestion and decresing the absorption in the intestine. Iron deficiency evolve with a number of trophic changes in the tissues, affecting cells with high mitotic activity.

**Purpose and objectivities**: Estimating prevalence of iron deficiency in different population groups and Associated risk factors; study the importance and role of iron in the body;evaluate pathophysiological aspects of iron metabolism in people deficient in iron;

**Materials and Methods:** This research is based on analyzing bibliographic information on the pathophysiology of iron deficiency:etiology, pathogenesis, diagnosis and principles of pathogenetic therapy.

**Results:** About 20% of women of childbearing age and 20% of children up to a year suffer from iron deficiency anemia. Iron deficiency frequency is 30-32%, which is high, in preschool children, affecting up to 47% of children. Iron deficiency is revealed to babes in 20-25% of cases, in children under the age of 4 years - 43% of cases, in children between 5-12 years - 37% cases. Leading risk factors in the occurrence of iron deficiency: insufficient reserves of iron at birth, intake poor iron absorption, disorders of iron absorbtion, increased loss of iron, increased need of iron, chronic diseases or cancers, infections, genetic, drugs, drinking alcohol, menstruation abundant blood donors are likely to develop iron deficiency. Deficiency is recognized as a combination of insufficient intake of iron and red blood cell morphology characterized by microcitosys and hypochromia as consequently abnormalities in absorption, transport and storage of iron in organism. The most frequent cause of diagnostic confusion is possible between iron deficiency and iron lock release of reticuloendothelial system because of inflammation. Informing the population at risk for iron deficiency about the importance of maintaining indexes such as hemoglobin concentration of iron and concentration of transferrin in blood. Basic stratagy adapted globally,to control and eradicate iron deficiency,are: daily food rich in iron, iron supplementation (medicine); fortification of foods with iron, promoting prevention of iron deficiency anemia among pregnant women, teenagers and people affected by heart failure, combating poor development of the fetus.

**Conclusions:** about 20% of women of childbearing age and 20% of children up to one year deficiency anemia through iron deficiency frequency.At students is 30-32%, which is high in preschool children, affecting up to 47%. Deficiency of iron is detected in the infants in 20-25% cases in children under 4 years - 43% of cases in children between 5-12 years - 37% cases.

**Key word:** Iron deficiency, risk factors, pathophysiology.