

# THE IMPACT OF OBESITY ON IRON METABOLISM

## Summary

Obesity is a preeminent public health problem which is associated with increased risk of heart and hypertensive diseases, type 2 diabetes, ischemic stroke and different types of cancer. Additionally, the number of overweight and obese children has grown rapidly in recent years. In Poland, the prevalence of overweight and obesity reaches presently 18.7% and 14.1% among school-aged boys and girls, respectively. Obese children are more likely to suffer from diseases related to contemporary civilization both during childhood and in later adult life. Experimental and clinical studies suggest a potential link between obesity and altered iron metabolism. Iron

deficiency is significantly more prevalent among obese individuals. Mechanisms of obesity-associated disturbances in iron metabolism are currently undefined. Obesity is regarded as a pro-inflammatory condition characterised by the presence of low-grade systemic inflammation. The obesity-related inflammation and obesity-related hepcidin production seem to be the most probable reasons of development of hypoferremia in obesity. Understanding the role of obesity in the pathogenesis of iron disorders may be an important step in the development of more effective treatment therapies.