

Diabetes mellitus (DM) is globally widespread group of diseases characterised by increased blood glucose. There are several types, the most common is type 1 DM and type 2 DM. Multifactorial polygenic inheritance is typical for DM with exception of couple monogenic forms. Type 1 DM is autoimmune form usually manifesting since childhood. Its manifestation is influenced mostly by HLA system genotype, but also by non-HLA genes together with environmental factors, amongst which nutrition of the children is predominant. Type 2 DM develops usually in adulthood. The development is influenced by obesity and lack of movement, but the individual sensitivity to type 2 DM is also genetically determined. Main genetic factors are variations in genes TCF7L2 and FTO as well as in genes coding cyclin dependent kinases.