In the recent years the interest to the morphological changes in the anthropological status in a number of diseases and their use as an additional diagnostic tool considerably increased. The disease with characteristic morphological manifestation is Down syndrome (DS) – most common genetic abnormalities. The individuals with DS are characterized with: short stature, microcephalia or brachicephalia, short extremities, wide hands and short fingers, clinodactyly, syndactyly, etc. The youths with DS demonstrate a great prevalence of overweight and obesity during the puberty. Nowadays anthropological characteristics of children with DS are subject of research in many countries. Knowledge of body composition in children with DS is of interest to clinicians and scientists because components of the body often provide more useful information than the measurements of weight, height or body mass index. To prepare and use DS specific growth charts is important for diagnosis, because growth in children with DS differ from that of their healthy peers.

Key words: Down syndrome, growth charts, short stature, obesity, anthropometry.