Age estimation plays a very important role not only in forensic and biomedicinal anthropology, but also in other disciplines, such as bioarcheologie or paleoanthropology. Teeth are considered the most reliable age indicators during childhood and adolescence. Teeth are resistant to the effects of external and internal factors, and because of that they decay a long time after a death of an individual. While age estimation in children and adolescents can be based on mineralization or eruption of the teeth, in adults it is focused on retrogressive changes in dentition. There have been established several methods and their modification for age assessment based on these criteria. This thesis aims to generally summarize tthe principles and methods of age estimation based on dentition both in immature and adult individuals.