Abstract: 140 complex endoprosthetics of the hip joint were performed in 124 patients treated in the traumatology and arthrology Center of the Buyrdenko Main Military Clinical Hospital during the period from 1988 to 2001. It constituted 14.3% of all patients with diseases and trauma sequelae of such localization treated in the Hospital. There were 6 main patient groups in whom the pathological changes were considerably expressed and required the special approaches to the operation, i.e. the primary simultaneous bilateral hip joint endoprosthetics. The patients' age was 17-65 (the mean age 48.7), while during the conventional primary endoprosthetics the mean age was 68. We have developed the method of hip joint endoprosthetics performed in two stages. (Patent No 2173108 RF). This method was applied in 16 patients (group 1-11 and group 2-5 patients). The post-operative follow-up period lasted 1-6 years. Excellent and good results were obtained in 14 (87.5%) patients that were evaluated according to Harris's method. We think that it is reasonable to consider the primary complex endoprosthetics as the independent type of surgical intervention as it requires the special approaches to planning and performance of the operation, high skill and special up-to-date equipment.