Objective: The aim of this study is to assess different features of the proximal femoral geometry of the Turkish population to build a database for surgeons and implant manufacturers. Methods: Antero-posterior pelvic radiograms of 380 (190 male, 190 female), 40-80 year old patients were reviewed retrospectively. The femoral head diameter, horizontal offset, neck shaft angle, femoral neck width, femoral neck length and the femoral axis length were measured. Results: In males, there was statistically significant difference between right and left hips at femoral head diameters and horizontal offset of hip (p=0.005, p=0.04). In females, there was statistically significant difference between right and left hip at femoral head diameter but not at horizontal offset (p=0.02, p=0.09). No significant difference was detected at the measurements of neck-shaft angle, femoral neck width, femoral neck length and femoral neck axis length. Conclusion: In male population, when all parameters evaluated, most of the time, in all parameters higher average values found than the female population. This study may offer a data base for surgeons and manufacturers who deal with proximal femoral bone surgery.