Aim of this thesis is to evaluate distribution of plantar pressure and the movement of spine and pelvis in patients diagnosed with femoroacetabular impingement syndrome. The results were obtained using Diers pedoscan system which can record the pressure distribution of feet during stance and motion. Also Diers formetric III 4D system was used to obtain photogrammetic records of spine and pelvis movement. We use rasterstereography based on Moiré topografy. Measured data represent three dimensional model of back surface during static or dynamic analysis. In addition we evaluated the effect of treatment using Dynamic neuromuscular stabilization. Obtained results were statistically processed.