# Dislocations in total hip arthroplasty—with special reference to registration, predisposing factors and prognoses for recurrency

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Dislocation is the second major—and the only increasing—complication to total hip arthroplasty (THA) in Sweden today. In order to find an adequate and reproducible way of assessing dislocations throughout this thesis we first compared 4 methods of registration. Established registers failed to incorporate 1/2 of the dislocations and 1/3 of the patients compared with a manual retrospective review of the original operation records and patient files complemented by national and local registers. A one year follow-up included only 3/4 of the cases.

These registration principles were used in two large retrospective multicenter studies, to determine the importance of the surgical approach and the diameter of the femoral head. Neither variable influenced on the dislocation rate, but the risk of having recurrent dislocations increased 2.3 times when the small femoral head was used. A significantly increased dislocation risk in THAs secondary to non-healed hip fractures and among inexperienced surgeons was also noted. Twice the number of dislocations were registered for inexperienced surgeons in a specially addressed, extended study. This frequency levelled off and became constant after 30 operations. Every 10 THAs performed annually decreased the risk of dislocation by 50%.

In a stratified case control study there was an increased mortality rate and a strongly suspected alcoholic abuse in the dislocating group. Otherwise dislocations could not be related to any somatic or psychiatric disorder or to the use of any specific group of pharmaceuticals.

Assessments of bone mineral density and muslce mass by dual energy X-ray absortiometry (DEXA), muscle strength, range of motion, stabilometry, biothesiometry and radiographic cup position in two randomly selected and stratified cohorts showed impaired balance and vibration sense in the dislocation group.

160 patients suffering from ≥ 1 dislocation after treatment with our standard implant between 1979 and 1994 were evaluated with regard to recurrency in a Kaplan-Meier survival analysis. 65% of the patients continued to experience dislocations which increased as time went by. Treatment with corrective surgery of a presumed technical error on the components eliminated dislocations in 35/49 patients and should be considered early to avoid unnecessary suffering for the patient in addition to high costs.