

TABLE E-1 Systematic Review: Complications of Slipped Capital Femoral Epiphysis Prophylactic in Situ Pinning

Study	Year	No. of Hips	No. of Pins	Osteonecrosis	Chondrolysis	Deep Infection	Sup. Infection	Subtroch Fracture	Hypertrophic Scar	Lateral Irritat.	Loss of Fixation	Pin Comp. Requiring Reoperation	Total No. of Comps.
Bellemans et al. ²⁵	1996	13	Variable	0	0	0	0	0	0	0	0	0	0
Carlioz et al. ²⁶	1984	47	Single	0	0	0	0	0	0	0	0	0	0
Emery et al. ¹	1990	95	Multiple	0	0	0	5	0	1	7	11	2	26
Ghanem et al. ²	1996	74	Single	0	0	0	0	1	0	0	0	0	1
Hansson ²⁷	1982	32	Single	0	0	0	0	0	0	0	0	0	0
Kumm et al. ²⁸	1996	34	Single	0	0	0	0	0	0	0	0	0	0
O’Beirne et al. ²⁹	1989	15	Single	0	0	1	0	0	0	0	0	0	1
Rostoucher et al. ³⁰	1996	51	Single	1	0	0	0	0	0	0	0	0	1
Seller et al. ³¹	2001	94	Single	0	0	0	0	0	0	0	4	0	4
Vince et al. ³²	1999	75	Multiple	0	0	0	0	0	0	2	1	3	6
Total (%)		530		1 (2.6)	0 (0)	1 (2.6)	5 (12.8)	1 (2.6)	1 (2.6)	9 (23.0)	16 (41.0)	5 (12.8)	39

Note: Numbers in parentheses represent percentage of total complications.

TABLE E-2 Systematic Review: Osteonecrosis and Chondrolysis after Slipped Capital Femoral Epiphysis in Situ Pinning*

Study	Year	Osteonecrosis/Mild Slip	Osteonecrosis/Moderate Slip	Osteonecrosis/Severe Slip	Chondrolysis/Mild Slip	Chondrolysis/Moderate Slip	Chondrolysis/Severe Slip
Aronson et al. ³⁴	1992	0/49	2/20	0/11	0/49	1/20	2/11
Aronson and Carlson ³³	1992	0/38	1/11	0/9	0/38	0/11	0/9
Bellemans et al. ²⁵	1996	1/33	1/23	1/3	1/33	1/23	2/3
Bianco ³⁵	1965	0/26	NA	NA	NA	NA	NA
Bishop et al. ³⁶	1978	0/35	NA	0/10	0/35	NA	4/10
Crandall et al. ³⁸	1992	0/23	0/14	1/6	0/23	0/14	0/6
Godette et al. ³⁹	1993	NA	NA	NA	0/22	0/14	0/8
Goodman et al. ⁴⁰	1996	0/5	0/7	0/9	0/5	0/7	0/9
Herman et al. ⁴¹	1996	NA	NA	3/21	NA	NA	1/21
Kallio et al. ⁴²	1995	NA	NA	1/5	NA	NA	NA
Koval et al. ⁴³	1989	0/55	0/19	1/6	0/55	0/19	0/6
Kennedy and Weiner ⁴⁴	1990	0/30	0/12	0/2	1/30	0/12	0/2
Loder et al. ⁴⁵	1993	1/14	4/16	9/25	NA	NA	NA
O'Beirne et al. ²⁹	1989	0/15	0/2	1/1	0/15	0/2	0/1
Pazzaglia et al. ⁴⁶		NA	0/16	NA	NA	0/16	NA
Rathey et al. ⁴⁷	1996	1/18	3/7	0/1	0/18	0/7	0/1
Salenius and Kivilaakso ⁴⁸	1968	0/36	0/11	1/3	NA	NA	NA
Samuelson and Olney ⁴⁹	1996	0/13	0/6	0/5	0/13	0/6	0/5
Ward et al. ⁵⁰	1992	0/16	0/29	0/8	0/16	0/29	0/8
Totals (%)		3/406 (0.74)	11/193 (5.70)	18/125 (14.4)	2/352 (0.57)	2/180 (1.11)	9/100 (9.00)

*NA = Not available

TABLE E-3 Prophylactic in Situ Pinning: Outcome Probabilities and Utilities

Outcome				Probability	Utility
Unilateral slipped capital femoral epiphysis	→ Prophylactic in situ pinning	→ Complication	→ Osteonecrosis	0.002	0.7
Unilateral slipped capital femoral epiphysis	→ Prophylactic in situ pinning	→ Complication	→ Chondrolysis	0	0.9
Unilateral slipped capital femoral epiphysis	→ Prophylactic in situ pinning	→ Complication	→ Superficial Infection	0.009	6.5
Unilateral slipped capital femoral epiphysis	→ Prophylactic in situ pinning	→ Complication	→ Deep Infection	0.002	3.5
Unilateral slipped capital femoral epiphysis	→ Prophylactic in situ pinning	→ Complication	→ Subtrochanteric Fracture	0.002	3.0
Unilateral slipped capital femoral epiphysis	→ Prophylactic in situ pinning	→ Complication	→ Hypertrophic Scar	0.002	8.0
Unilateral slipped capital femoral epiphysis	→ Prophylactic in situ pinning	→ Complication	→ Lateral Irritation	0.017	8.3
Unilateral slipped capital femoral epiphysis	→ Prophylactic in situ pinning	→ Complication	→ Loss of Fixation	0.03	5.0
Unilateral slipped capital femoral epiphysis	→ Prophylactic in situ pinning	→ Complication	→ Pin Complication Requiring Reoperation	0.009	4.5
Unilateral slipped capital femoral epiphysis	→ Prophylactic in situ pinning	→ No Complication		0.927	9.5

TABLE E-4 Observation: Outcome Probabilities and Utilities

Outcome						Probability	Utility
Unilateral slipped capital femoral epiphysis	→Observation	→No Contralateral Slip				0.810	10
Unilateral slipped capital femoral epiphysis	→Observation	→Late Contralateral Slip	→Severe Slip	→ Complication	→Osteonecrosis/Severe Deformity	0.0026	0
Unilateral slipped capital femoral epiphysis	→Observation	→Late Contralateral Slip	→ Mild Slip	→ Complication	→Osteonecrosis/Mild Deformity	0.0013	2.8
Unilateral slipped capital femoral epiphysis	→ Observation	→Late Contralateral Slip	→ Mild Slip	→ Complication	→ Chondrolysis/Mild Deformity	0.0008	2.4
Unilateral slipped capital femoral epiphysis	→ Observation	→Late Contralateral Slip	→ Mild Slip	→ Complication	→ Superficial Infection/Mild Deformity	0.0013	6.1
Unilateral slipped capital femoral epiphysis	→ Observation	→Late Contralateral Slip	→ Mild Slip	→ Complication	→ Deep Infection/Mild Deformity	0.0003	4.5
Unilateral slipped capital femoral epiphysis	→ Observation	→Late Contralateral Slip	→ Mild Slip	→ Complication	→ Subtrochanteric Fracture/Mild Deformity	0.0003	4.1
Unilateral slipped capital femoral epiphysis	→ Observation	→Late Contralateral Slip	→ Mild Slip	→ Complication	→ Hypertrophic Scar/Mild Deformity	0.0003	7.0
Unilateral slipped capital femoral epiphysis	→ Observation	→Late Contralateral Slip	→ Mild Slip	→ Complication	→ Lateral Irritation/Mild Deformity	0.0024	7.4
Unilateral slipped capital femoral epiphysis	→ Observation	→Late Contralateral Slip	→ Mild Slip	→ Complication	→ Loss of Fixation/Mild Deformity	0.0042	6.6
Unilateral slipped capital femoral epiphysis	→ Observation	→Late Contralateral Slip	→ Mild Slip	→ Complication	→ Pin Complication Requiring Reoperation/Mild Deformity	0.0019	5.2
Unilateral slipped capital femoral epiphysis	→ Observation	→Late Contralateral Slip	→ Mild Slip	→ No Complication	→Mild Deformity	0.1278	8.4
Unilateral slipped capital femoral epiphysis	→ Observation	→Late Contralateral Slip	→ Moderate Slip	→ Complication	→ Osteonecrosis/Moderate Deformity	0.0020	2.0
Unilateral slipped capital femoral epiphysis	→ Observation	→Late Contralateral Slip	→ Moderate Slip	→ Complication	→ Chondrolysis/Moderate Deformity	0.0003	2.0
Unilateral slipped capital femoral epiphysis	→ Observation	→Late Contralateral Slip	→ Moderate Slip	→ Complication	→ Superficial Infection/Moderate Deformity	0.0003	5.3
Unilateral slipped capital femoral epiphysis	→ Observation	→Late Contralateral Slip	→ Moderate Slip	→ Complication	→ Deep Infection/Moderate Deformity	0.0001	4.1
Unilateral slipped capital femoral epiphysis	→ Observation	→Late Contralateral Slip	→ Moderate Slip	→ Complication	→ Subtrochanteric Fracture/Moderate Deformity	0.0001	3.8
Unilateral slipped capital femoral epiphysis	→ Observation	→Late Contralateral Slip	→ Moderate Slip	→ Complication	→ Hypertrophic Scar/Moderate Deformity	0.0001	5.6
Unilateral slipped capital femoral epiphysis	→ Observation	→Late Contralateral Slip	→ Moderate Slip	→ Complication	→ Lateral Irritation/Moderate Deformity	0.0005	6.2
Unilateral slipped capital femoral epiphysis	→ Observation	→Late Contralateral Slip	→ Moderate Slip	→ Complication	→ Loss of Fixation/Moderate Deformity	0.0009	4.7
Unilateral slipped capital femoral epiphysis	→ Observation	→Late Contralateral Slip	→ Moderate Slip	→ Complication	→ Pin Complication Requiring Reoperation/Moderate Deformity	0.0007	4.2
Unilateral slipped capital femoral epiphysis	→ Observation	→Late Contralateral Slip	→ Moderate Slip	→ No Complication	→ Moderate Deformity	0.0255	6.5
Unilateral slipped capital femoral epiphysis	→ Observation	→Late Contralateral Slip	→ Severe Slip	→ Complication	→ Chondrolysis/Severe Deformity	0.0017	0.5
Unilateral slipped capital femoral epiphysis	→ Observation	→Late Contralateral Slip	→ Severe Slip	→ Complication	→ Superficial Infection/Severe Deformity	0.0002	2.1
Unilateral slipped capital femoral epiphysis	→ Observation	→Late Contralateral Slip	→ Severe Slip	→ Complication	→ Deep Infection/Severe Deformity	0.00003	1.2
Unilateral slipped capital femoral epiphysis	→ Observation	→Late Contralateral Slip	→ Severe Slip	→ Complication	→ Subtrochanteric Fracture/Severe Deformity	0.00003	1.3
Unilateral slipped capital femoral epiphysis	→ Observation	→Late Contralateral Slip	→ Severe Slip	→ Complication	→Hypertrophic Scar/Severe Deformity	0.00003	2.3
Unilateral slipped capital femoral epiphysis	→ Observation	→Late Contralateral Slip	→ Severe Slip	→ Complication	→ Lateral Irritation/Severe Deformity	0.0003	2.3
Unilateral slipped capital femoral epiphysis	→ Observation	→Late Contralateral Slip	→ Severe Slip	→ Complication	→ Loss of Fixation/Severe Deformity	0.0006	1.8
Unilateral slipped capital femoral epiphysis	→ Observation	→Late Contralateral Slip	→ Severe Slip	→ Complication	→ Pin Complication Requiring Reoperation/Severe Deformity	0.0006	1.7
Unilateral slipped capital femoral epiphysis	→ Observation	→Late Contralateral Slip	→ Severe Slip	→ No Complication	→ Severe Deformity	0.0129	2.8