

Fig. E-1
Kaplan-Meier survivorship curve with accompanying 95% confidence intervals for the end point of revision because of aseptic loosening.

Revision for Aseptic Acetabular Loosening

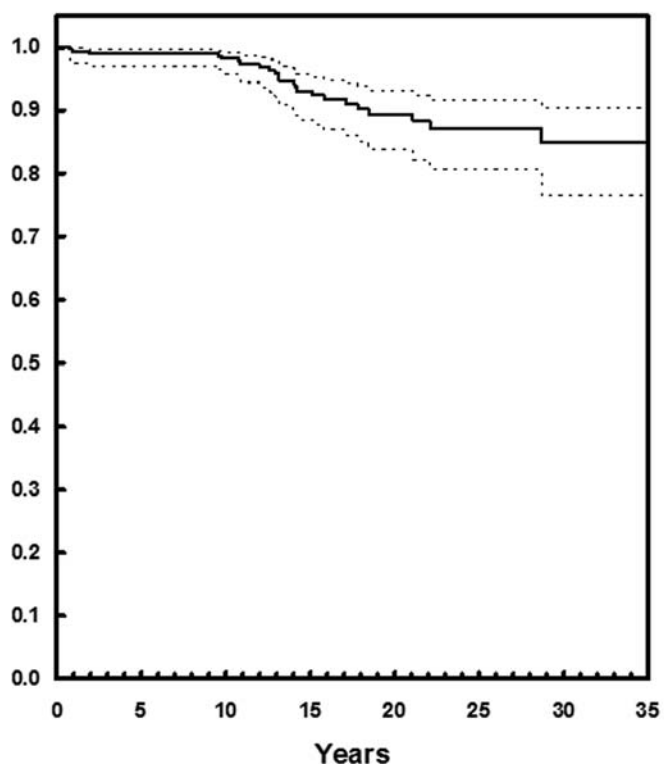


Fig. E-2

Kaplan-Meier survivorship curve with accompanying 95% confidence intervals for the end point of revision because of aseptic acetabular loosening.

Revision for Aseptic Femoral Loosening

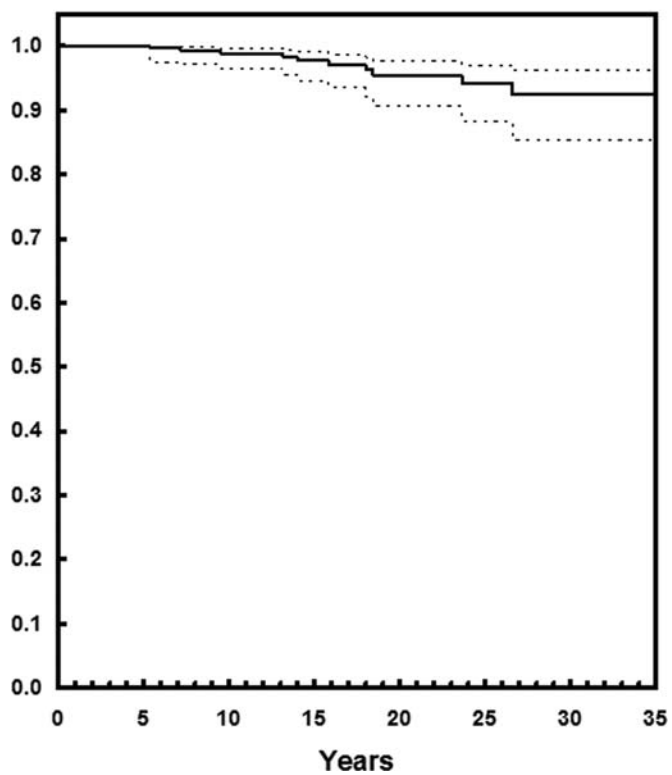


Fig. E-3

Kaplan-Meier survivorship curve with accompanying 95% confidence intervals for the end point of revision because of aseptic femoral loosening.

Acetabular Radiographic Loosening

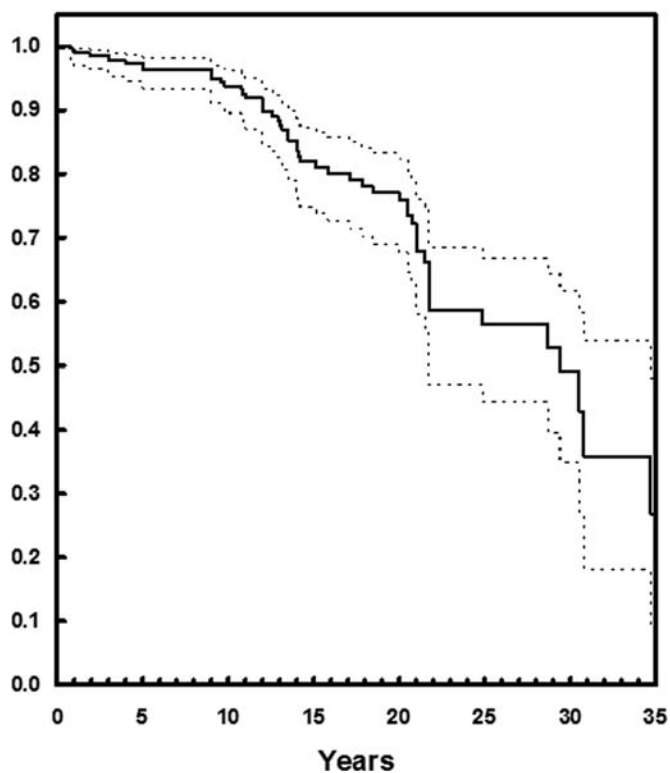


Fig. E-4

Kaplan-Meier survivorship curve with accompanying 95% confidence intervals for the end point of radiographic evidence of acetabular loosening.

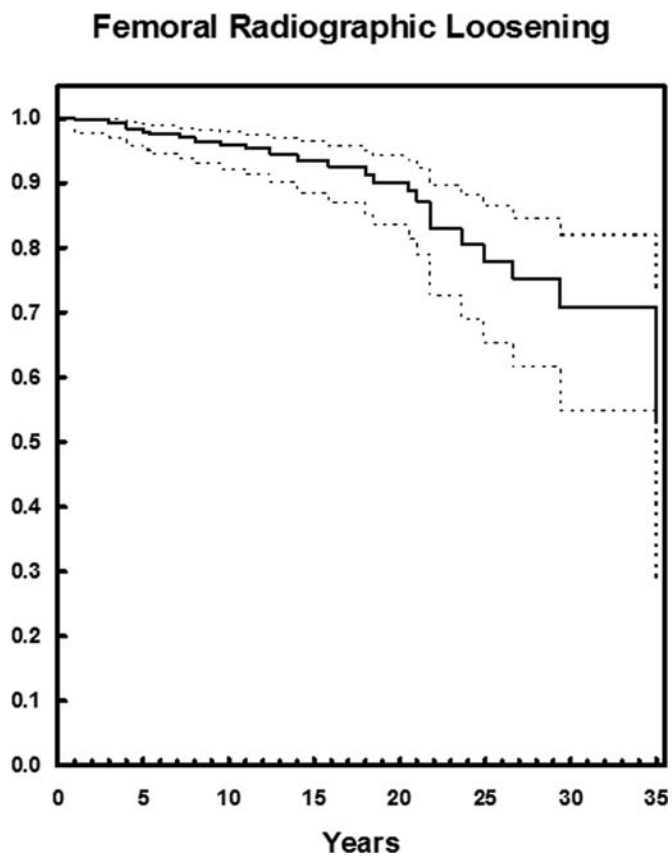


Fig. E-5
Kaplan-Meier survivorship curve with accompanying 95% confidence intervals for the end point of radiographic evidence of femoral loosening.

TABLE E-1 Revisions of Acetabular and Femoral Components

Indication for Revision	All Hips (N = 329)	Hips in Patients Living at Time of 35-Yr Follow-up (N = 15)
Aseptic loosening	28 (9%)	6 (40%)
Septic loosening	8 (2%)	1 (7%)
Dislocation	3 (1%)	
All revised hips	39 (12%)	7 (47%)

TABLE E-2 Aseptic Loosening of Acetabular and Femoral Components

Determinant of Loosening	All Hips (N = 318*)	Hips in Living Patients with Radiographs Made at a Minimum of 35 Yr (N = 14)
Acetabular component		
Revision due to aseptic loosening	23 (7%)	6 (43%)
Radiographic loosening only	30 (9%)	3 (21%)
Total	53 (17%)	9 (64%)
Femoral component		
Revision due to aseptic loosening	10 (3%)	1 (7%)
Radiographic loosening only	15 (5%)	1 (7%)
Total	25 (8%)	2 (14%)

*Excludes cases revised because of infection or dislocation.

TABLE E-3 Kaplan-Meier Survivorship at 35 Years

End Point	Survivorship	95% Confidence Interval
Revision for any reason	78%	±8%
Revision due to aseptic loosening	81%	±8%
Revision due to aseptic acetabular loosening	85%	±7%
Revision due to aseptic femoral loosening	93%	±5%
Radiographic loosening of the acetabular component	27%	±19%
Radiographic loosening of the femoral component	53%	±22%

TABLE E-4 Functional Life of the Charnley Total Hip Replacement

	Average Duration of Survival (Until Death or 35-Yr Final Follow-up) (yr)
Entire cohort (329 hips)	17
Unrevised (290 hips, 88%)	16
Revised (39 hips, 12%)	
Time to first revision	13
Time from first revision to end point	12

TABLE E-5 Life Expectancy in U.S.

	Years Remaining	
Age (yr)	1969-1971 Total U.S. Population	1999-2001 Total U.S. Population
40	35	40
50	26	31
60	18	22
65	15	19
70	12	15
75	9	12