

Fig. E-1
A distal femoral massive prosthesis with a hydroxyapatite-coated grooved ingrowth collar located at the implant-bone junction.

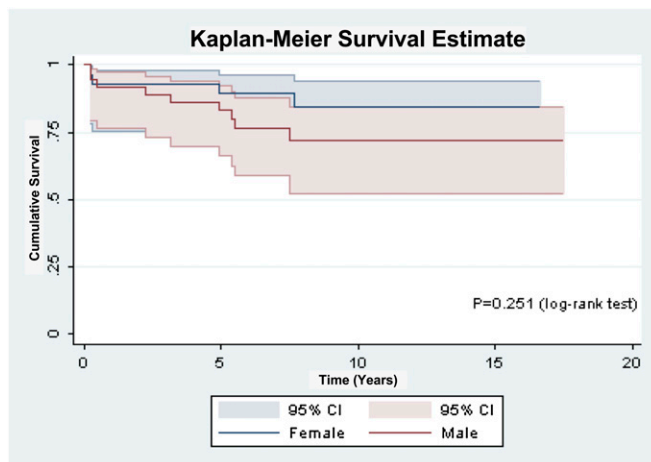


Fig. E-2
Kaplan-Meier survival analysis of distal femoral prostheses with respect to implant revision due to aseptic loosening (male and female patients combined).

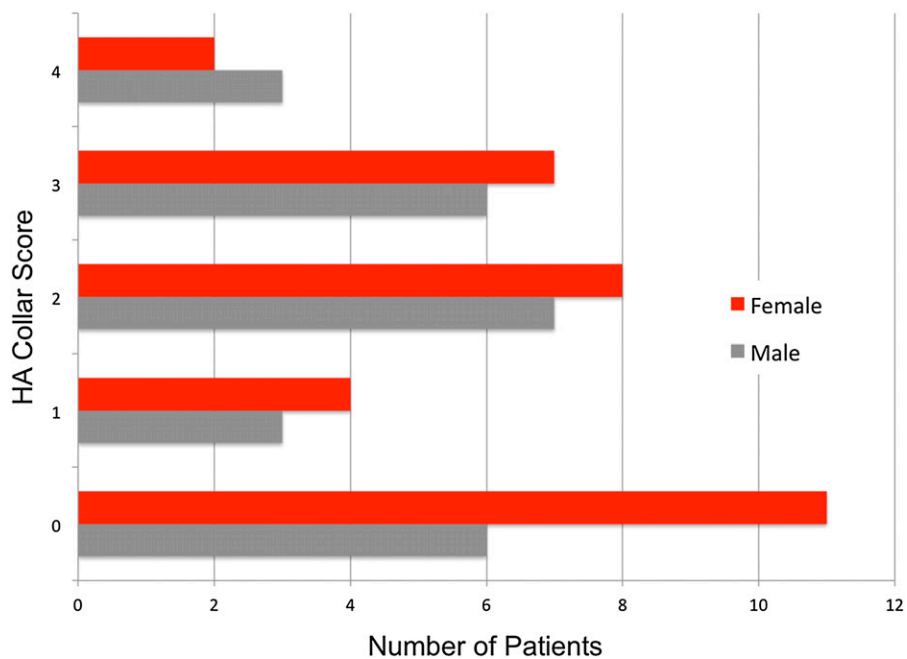


Fig. E-3
Graph showing the scores obtained with radiographic quantification of extracortical osteointegration at the collar in fifty-seven patients. HA = hydroxyapatite.

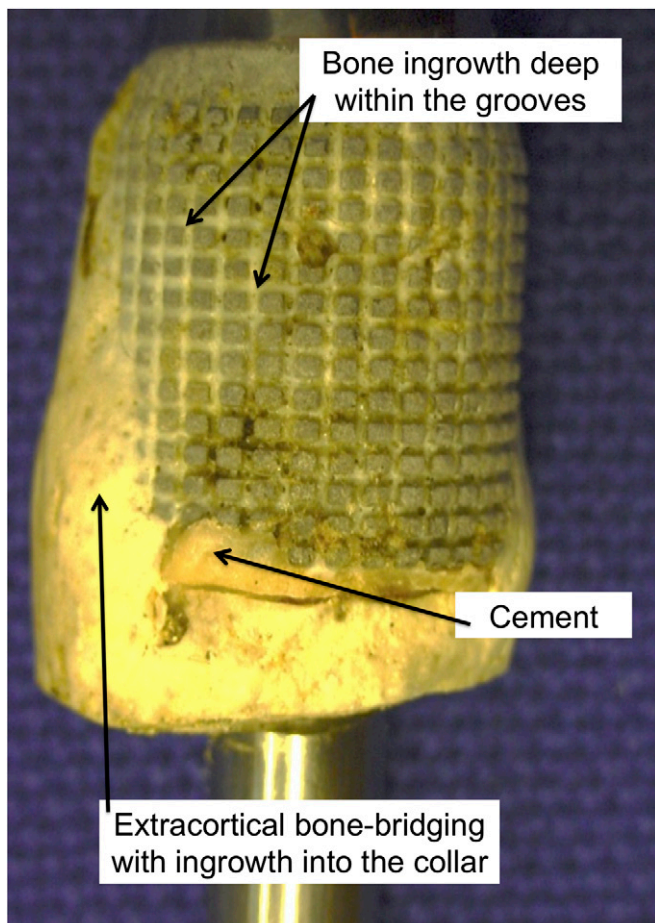


Fig. E-4
A distal femoral prosthesis retrieved three years and eight months post-operatively, showing extracortical bone growth over the shaft of the implant and within the hydroxyapatite grooves.



Fig. E-5
An extendible distal femoral bone tumor prosthesis at twelve years and three months in a patient who was nineteen years of age at implantation. Substantial extracortical osseous bridging is seen with extensive osteointegration of the collar.

TABLE E-1 Patient Diagnoses at the Time of Surgery (N = 61)		
	No. of Patients	
	Male	Female
Synovial sarcoma	0	1
Osteosarcoma	8	17
Malignant fibrous histiocytoma	5	8
Giant cell tumor	7	1
Ewing sarcoma	0	1
Chondrosarcoma	6	6
Chondroblastoma	0	1

TABLE E-2 Aseptic Loosening, Infection, and Implant Fracture Leading to Revision Surgery During the Two to Eighteen-Year Follow-up Period				
	Patient Age (yr)	Sex	Diagnosis	Time to Implant Failure (yr)
Aseptic loosening (n = 5)	22	Female	Osteosarcoma	2
	33	Female	Malignant fibrous histiocytoma	6
	47	Male	Chondrosarcoma	6
	20	Female	Osteosarcoma	8
	24	Female	Chondrosarcoma	10
Infection (n = 2)	24	Male	Osteosarcoma	4
	17	Female	Osteosarcoma	5
Implant fracture (n = 2)	23	Male	Osteosarcoma	4
	40	Female	Malignant fibrous histiocytoma	4