

TABLE E-1 Percentage of Paired Data (Preoperative and Postoperative) Available for Analysis in Each Treatment Group

	Distal Femoral Extension Osteotomy Only	Distal Femoral Extension Osteotomy and Patellar Tendon Advancement	Patellar Tendon Advancement Only	All Patients
Kinematics	100%	100%	100%	100%
Gillette Gait Index	100%	100%	100%	100%
Normal net O ₂ consumption (% of control)	88%	76%	71%	78%
Walking level (FAQ)	88%	85%	92%	88%
Pain (FAQ)	81%	79%	88%	83%
Pain/comfort (PODCI)	56%	64%	79%	66%
Transfers and basic mobility (PODCI)	56%	64%	79%	66%
Sports and physical function (PODCI)	56%	64%	79%	66%
Koshino index	56%	91%	92%	80%
Strength (gluteus maximus)	94%	82%	75%	80%
Strength (quadriceps)	100%	91%	82%	91%
Strength (plantar flexors)	88%	82%	79%	83%
Extensor lag	64%	75%	79%	73%
All	79%	81%	84%	81%

TABLE E-2 Osseous, Soft-Tissue, and Tone-Reduction Surgery Prior to the Index Operation*

Type of Surgery	Percentage of Total No. of Procedures			Total No. of Procedures
	Distal Femoral Extension Osteotomy Only (N = 16)	Distal Femoral Extension Osteotomy and Patellar Tendon Advancement (N = 33)	Patellar Tendon Advancement Only (N = 24)	
Previous osseous surgery				
Femoral derotation osteotomy	9	40	51	68
Tibial derotation osteotomy	6	47	47	36
Foot reconstruction	5	62	33	60
Implant removal	7	35	58	43
Other osseous surgery	0	67	33	9
Previous soft-tissue surgery				
Psoas	16	55	29	31
Adductor	33	30	37	30
Medial hamstrings	17	45	38	73
Lateral hamstrings	17	58	25	24
Rectus femoris	19	46	35	48
Plantar flexors	13	50	37	98
Other soft tissue	11	43	46	70
Previous tone-reduction surgery				
Selective dorsal rhizotomy	8	44	48	25
Intrathecal baclofen pump	57	29	14	7

*Not all surgical procedures were performed at our institution.

TABLE E-3 Pelvis and Hip Measures

	Distal Femoral Extension Osteotomy Only			Distal Femoral Extension Osteotomy and Patellar Tendon Advancement			Patellar Tendon Advancement Only		
	Preop.*	Postop.*	P Value	Preop.*	Postop.*	P Value	Preop.*	Postop.*	P Value
Pelvic tilt	13 ± 10	16 ± 11	0.100	15 ± 9	21 ± 7	<0.001	16 ± 6	22 ± 8	<0.001
Pelvic tilt range of motion	10 ± 3	9 ± 3	0.102	8 ± 3	8 ± 3	0.905	8 ± 3	8 ± 3	0.583
Hip extension in terminal stance	12 ± 16	11 ± 15	0.815	14 ± 14	9 ± 11	0.054	9 ± 9	11 ± 10	0.215

*The values are given, in degrees, as the mean and standard deviation. Comparable kinematic graphs are found in Figure 5.

TABLE E-4 Functional Ability: Skills Requiring Knee Motion*

	Distal Femoral Extension Osteotomy Only		Distal Femoral Extension Osteotomy and Patellar Tendon Advancement		Patellar Tendon Advancement Only	
	Preop.†	Postop.†	Preop.†	Postop.†	Preop.†	Postop.†
Up/down steps (railing)	13/13	12/13	23/25	23/25	22/22	21/22
Kick object with right foot	10/13	11/13	23/25	20/25	19/22	21/22
Kick object with left foot	11/13	11/13	20/25	21/25	19/22	21/22
Step over object (right foot first)	8/13	9/13	24/25	19/25	19/22	20/22
Ride 3-wheel tricycle	10/13	10/13	18/25	16/25	21/22	20/22
Step up/down curb	11/13	12/13	18/25	16/25	14/22	20/22
Step over object (left foot first)	8/13	9/13	22/25	19/25	17/22	19/22
On/off bus	7/13	8/13	17/25	16/25	15/22	18/22
Total	78/104	82/104	165/200	150/200	146/176	160/176

*Eight of the twenty-two advanced functional skills from the Gillette Functional Assessment Questionnaire⁴¹ that require knee range of motion or strength. Skills are listed from easiest to most difficult. Only complete paired data were used. †The number of individuals able to perform each skill/the total number of patients in the treatment group for which the data were available.