



Fig. E-1
lowa ankle range of motion device.



Fig. E-2
Radiograph demonstrating Achilles tendon calcification.

TABLE E-1 Questionnaire Results			
	Score*		P Value
	Tibialis Anterior Tendon Transfer (N = 14 Patients)	Reference (N = 21 Patients)	
AAOS Foot and Ankle Outcomes Questionnaire			
Foot and ankle score	90.2 ± 4.1	91.3 ± 4.5	0.46
Shoe score	67.7 ± 30.7	68.4 ± 30.2	0.95
Foot Function Index			
Pain scale	1.91 ± 2.1	1.31 ± 1.7	0.36
Disability scale	0.82 ± 0.8	0.65 ± 1.6	0.64
Function scale	2.03 ± 1.5	1.4 ± 1.6	0.18
Laaveg-Ponseti Questionnaire			
Functional rating	80.6 ± 12.16	79.8 ± 11.2	0.5

*The values are given as the mean and standard deviation.

TABLE E-2 Motor Strength as Assessed Manually											
Muscle Tested	No. of Feet										P Value
	Tibialis Anterior Tendon Transfer					Reference					
	1*	2*	3*	4*	5*	1*	2*	3*	4*	5*	
Tibialis anterior	0	0	1	1	23	0	0	0	0	26	0.23
Tibialis posterior	0	0	0	1	24	0	1	0	0	25	1
Gastrocnemius-soleus	0	0	1	0	24	0	0	0	0	26	0.49
Peronei	0	0	1	4	20	0	0	1	1	24	0.34
Extensor hallucis longus	0	0	2	2	21	0	0	0	1	25	0.32
Extensor digitorum communis	0	0	0	3	22	0	0	0	1	25	0.35
Flexor hallucis longus	0	1	0	0	24	0	0	0	0	26	0.49
Flexor digitorum longus	0	1	0	0	24	0	0	0	0	26	0.49

*Rating of motor strength according to a standard 0-to-5 scale²².

	No. of Feet								P Value*
	Tibialis Anterior Tendon Transfer				Reference				
	0†	1†	2†	3†	0†	1†	2†	3†	
Navicular wedging	3	11	7	3	8	12	4	2	N.S.
Flattening of talus	4	12	8	0	6	17	1	2	0.03
Ankle									N.S.
Osteophytes	24	0	0	0	25	1	0	0	
Joint space narrowing	24	0	0	0	25	1	0	0	
Cyst formation	24	0	0	0	26	0	0	0	
Subchondral sclerosis	24	0	0	0	26	0	0	0	
Subtalar									N.S.
Osteophytes	24	0	0	0	26	0	0	0	
Joint space narrowing	24	0	0	0	23	2	0	1	
Cyst formation	24	0	0	0	25	1	0	0	
Subchondral sclerosis	23	1	0	0	25	0	0	1	
Talonavicular									N.S.
Osteophytes	7	11	6	0	16	9	1	0	
Joint space narrowing	10	9	4	1	20	3	2	1	
Cyst formation	23	1	0	0	26	0	0	0	
Subchondral sclerosis	21	3	0	0	26	0	0	0	
Calcaneocuboid									N.S.
Osteophytes	24	0	0	0	24	2	0	0	
Joint space narrowing	22	2	0	0	25	1	0	0	
Cyst formation	24	0	0	0	26	0	0	0	
Subchondral sclerosis	24	0	0	0	25	1	0	0	
Navicular-cuneiform									0.024
Osteophytes	13	7	4	0	24	2	0	0	
Joint space narrowing	9	9	6	0	17	7	1	1	
Cyst formation	23	1	0	0	26	0	0	0	
Subchondral sclerosis	24	0	0	0	25	1	0	0	
Lisfranc joint									N.S.
Osteophytes	22	2	0	0	24	2	0	0	
Joint space narrowing	22	2	0	0	22	3	1	0	
Cyst formation	24	0	0	0	26	0	0	0	
Subchondral sclerosis	24	0	0	0	26	0	0	0	

*N.S. = not significant. †Rating of severity as assessed on a scale of none (0), minimal (1), moderate (2), and severe (3).

TABLE E-4 Pedobarographic Results						
	3 mph (4.8 kph)			Self-Selected Pace		
	Tibialis Anterior Tendon Transfer*	Reference*	P Value	Tibialis Anterior Tendon Transfer*	Reference*	P Value
Heel						
Total area of peak pressure (cm^2)	41.9 ± 9.6	38 ± 5.4	0.27	52.3 ± 33.4	36.4 ± 5.5	0.17
Total force (N)	789.4 ± 170.1	747.4 ± 196.4	0.77	689.2 ± 161.1	593.7 ± 182.2	0.35
Peak pressure (N/cm^2)	62.5 ± 32.3	50.6 ± 18.1	0.1	53.3 ± 25.5	40.3 ± 21.4	0.29
Pressure time integral (Ns/cm^2)	9.6 ± 2.9	9.2 ± 3.3	0.41	11.1 ± 3.3	9.8 ± 7.0	0.53
Force time integral (Ns)	144.9 ± 36.8	142.0 ± 47.6	0.46	167.0 ± 50.4	138.9 ± 50.6	0.4
Midfoot						
Total area of peak pressure (cm^2)	45.8 ± 9.4	41.3 ± 9.9	0.46	45.3 ± 9.1	42.9 ± 11.0	0.91
Total force (N)	445.9 ± 206.2	417.9 ± 152.1	0.95	440.5 ± 188.9	431.9 ± 165.5	0.73
Peak pressure (N/cm^2)	27.1 ± 12.8	25.7 ± 11.2	0.42	25.9 ± 10.0	26.5 ± 13.0	0.85
Pressure time integral (Ns/cm^2)	8.0 ± 4.4	8.0 ± 3.4	0.74	9.6 ± 4.0	10.6 ± 6.0	0.6
Force time integral (Ns)	110.7 ± 61.7	116.0 ± 46.8	0.94	152.8 ± 81	148.0 ± 76.7	0.76
Forefoot						
Total area of peak pressure (cm^2)	48.7 ± 7.7	44.0 ± 4.3	0.21	46.2 ± 9.0	44.2 ± 4.6	0.55
Total force (N)	784.4 ± 244.1	827.5 ± 113.1	0.21	789.9 ± 217.6	803.4 ± 111.9	0.76
Peak pressure (N/cm^2)	69.5 ± 28.0	73.7 ± 27.5	0.93	69.6 ± 31.7	71.2 ± 25.1	0.87
Pressure time integral (Ns/cm^2)	16.8 ± 7.6	18.1 ± 5.7	0.96	20.5 ± 10.7	21.0 ± 8.1	0.82
Force time integral (Ns)	206.9 ± 80.3	226.0 ± 44.2	0.21	238.8 ± 93.2	262.6 ± 68.0	0.56
Lateral toes						
Total area of peak pressure (cm^2)	13.3 ± 10.1	9.9 ± 2.6	0.48	11.8 ± 8.7	9.0 ± 2.8	0.5
Total force (N)	197.9 ± 110.8	201.5 ± 102.3	0.71	162.2 ± 88.6	149.4 ± 94.4	0.86
Peak pressure (N/cm^2)	59.8 ± 30.4	65.1 ± 33.6	0.74	49.7 ± 29.4	51.2 ± 33.2	0.88
Pressure time integral (Ns/cm^2)	11.7 ± 5.8	13.9 ± 7.9	0.37	11.4 ± 6.0	13.0 ± 8.7	0.72
Force time integral (Ns)	38.2 ± 22.4	40.2 ± 22.4	0.35	38.1 ± 22.0	40.2 ± 21.0	0.81
Great toe						
Total area of peak pressure (cm^2)	11.8 ± 3.6	11.4 ± 4.9	0.86	11.3 ± 3.2	9.9 ± 3.8	0.43
Total force (N)	113.5 ± 57.4	82.0 ± 43.3	0.25	89.1 ± 52.2	74.0 ± 20.4	0.45
Peak pressure (N/cm^2)	38.4 ± 22.1	36.5 ± 22.1	0.91	30.7 ± 17.1	32.2 ± 16.2	0.76
Pressure time integral (Ns/cm^2)	8.0 ± 3.7	8.4 ± 5.1	0.33	8.0 ± 3.8	9.5 ± 5.9	0.31
Force time integral (Ns)	22.8 ± 12.2	19.2 ± 11.5	0.83	21.7 ± 13.7	20.9 ± 12.8	0.93

*The values are given as the mean and standard deviation.