



Fig. E-1A

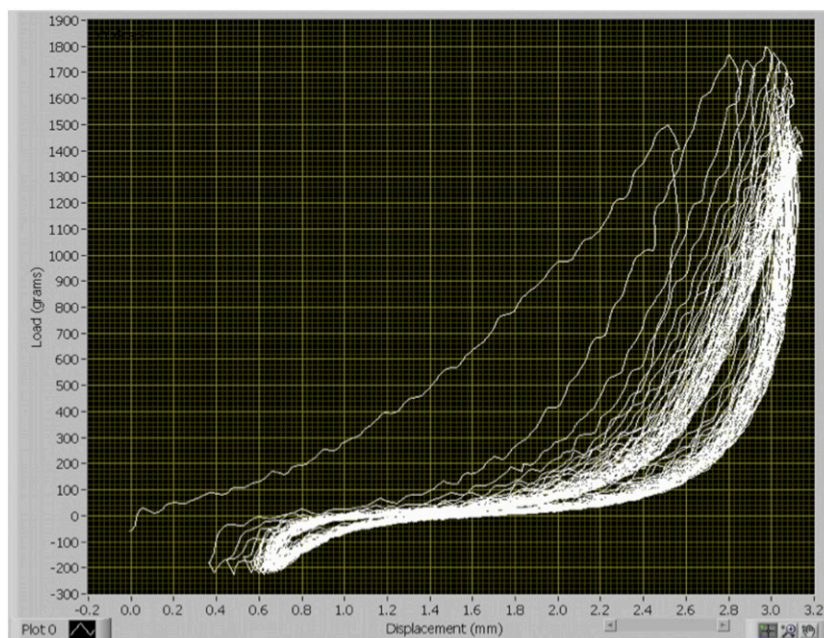


Fig. E-1B

Fig. E-1A Illustration of the loading device, which utilized both lateral and medial attachments to the external fixator pins. The load-displacement graph (**Fig. E-1B**) was displayed on a computer with use of LabVIEW 7.0 (National Instruments, Austin, Texas). At the beginning of all loading sessions, the joint was compressed to 1.96 N (200 g) to establish a reproducible starting position. Rats underwent fifty cycles of either 10% strain or 2400 g of load per loading session.

TABLE E-1 Loading Results in Each Animal on Each Postoperative Day*															
	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Total No. of Days	
														L	D
Delayed-loading group															
Animal 1				D	D	L	D	D	L	L	D	L	L	5	5
Animal 2				D	D	D	L	L	L	L	L	L	L	7	3
Animal 3				D	D	D	D	D	L	D	D	L	L	3	7
Animal 4				L	D	D	L	L	L	D	L	L	L	7	3
Animal 5				D	D	D	D	D	D	D	D	D	L	1	9
Animal 6				D	D	D	L	D	D	L	L	D	L	4	6
Animal 7				D	D	D	L	L	L	L	L	L	D	6	4
Animal 8				D	D	D	L	L	L	L	D	D	D	4	6
Animal 9				L	L	L	L	L	L	L	L	L	L	10	0
Animal 10				D	D	L	L	L	L	L	L	L	L	8	2
Animal 11				D	D	D	D	D	D	D	D	D	L	1	9
Immediate-loading group															
Animal 1	L	L	L	L	L	L	L	L	L	L	L	L	L	13	0
Animal 2	D	D	D	L	L	L	L	L	L	D	L	L	L	9	4
Animal 3	D	D	D	D	D	L	L	L	D	D	D	D	D	3	10
Animal 4	D	D	L	L	L	L	L	L	L	L	L	L	L	11	2
Animal 5	D	D	D	D	D	D	L	D	D	L	L	D	D	3	10
Animal 6	L	L	L	L	L	L	L	L	L	L	L	L	L	13	0
Animal 7	D	D	D	D	D	D	D	D	L	D	D	L	L	3	10
*The knee joint was distracted until the graft reached either the 10% strain displacement limit (D) or the 2400-g load limit (L).															