

Fig. E-1
Histological assessment of fracture repair. Cartilaginous matrix is specifically stained an orange-red color by safranin-O/fast green. Endochondral ossification was promoted in the group treated with CO₂ and hydrogel compared with the control group. Cb = cortical bone, ca = cartilage, gt = granulation tissue, and wb = woven bone. Bar = 500 μ m.

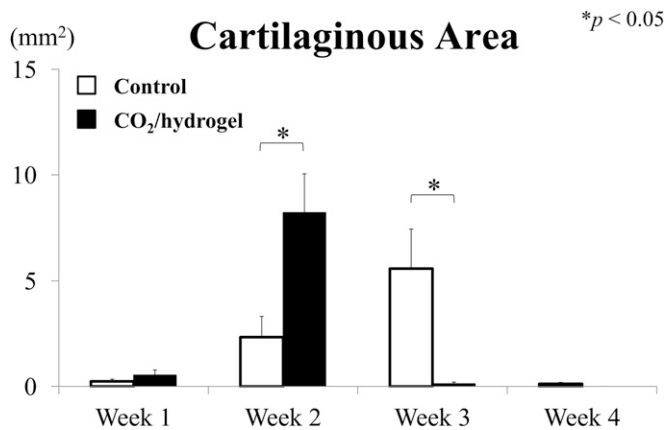


Fig. E-2
Mean cartilage area (and standard error), as measured with use of NIH ImageJ software, in sections of femora stained with safranin-O (n = 5 in each group).

TABLE E-1 Specific Primers for Real-Time PCR Amplification

Gene Product	Primer Sequences, 5'-3'	
	Forward	Reverse
Type-II collagen	GGGCTCCCAGAACATCACCTACCA	TCGGCCCTCATCTCCACATCATTG
Type-X collagen	GGCAGCAGCACTATGACCCAA	ACAGGCCTACCCAAACGTGAGTCC
MMP-13	CCCTGGAGCCCTGATGTTT	CTCTGGTGTGTTTGGGGTGCT
Alkaline phosphatase	TCCCAAAGGCTTCTTCTTGC	ATGGCCTCATCCATCTCCAC
Runx2	GCGTCAACACCATCATTCTG	CAGACCAGCAGCACTCCATC
Osterix	AGCTCTTCTGACTGCCTGCCTA	TGGGTGCGCTGATGTTTGCT
VEGF	TGCACTGGACCCTGGCTTTAC	CGGCAGTAGCTTCGCTGGTAG
GAPDH	AAATGGTGAAGGTCGGTGTG	TGAAGGGGTCGTTGATGG