

Figure S1. Surgical procedure. (A) Exposure of the temporomandibular region. (B) Incision of the outside quarter of the joint disc. (C) Condyle sagittal fracture by piezosurgery. (D) The '#'-shaped groove was made by piezosurgery in the fossa surface. Gf, Joint fossa; Co, Condyle.

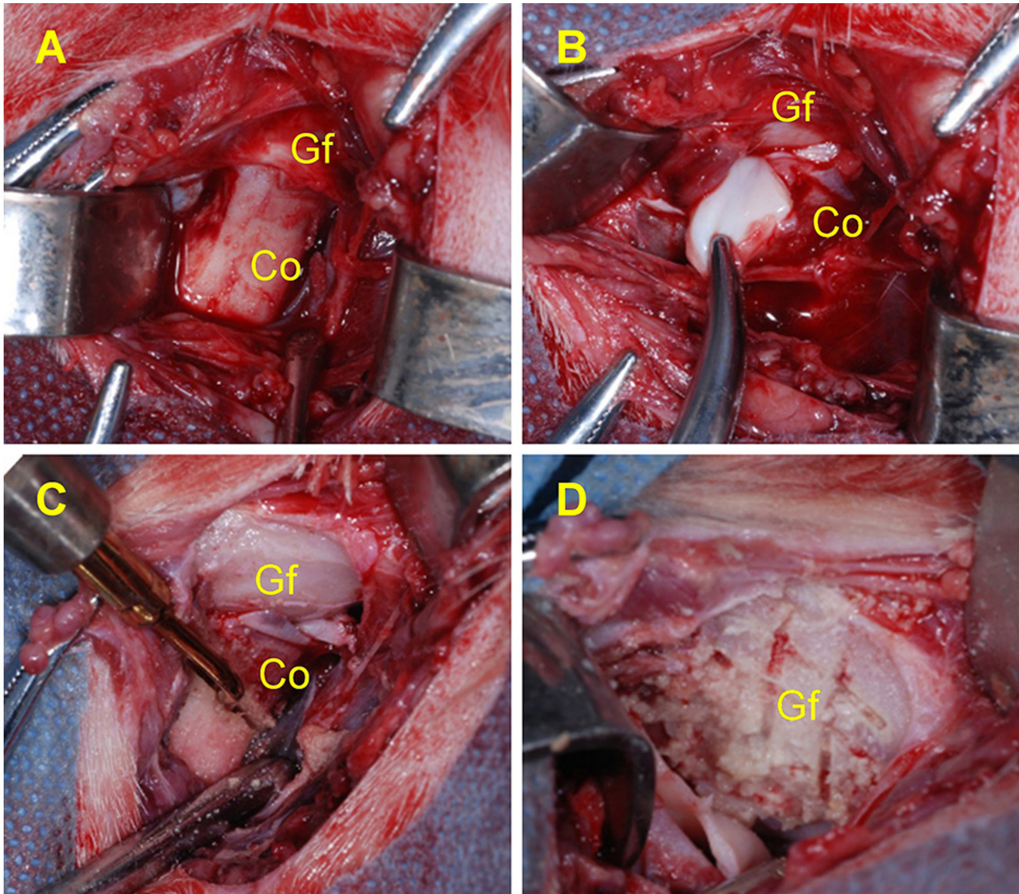


Table SI. The gene chip RNA samples information.

Sample	Conc. ($\mu\text{g}/\mu\text{l}$)	Vol. (μl)	Amount (μg)	A260/A280	2100 Result		Result
					RIN	28S/18S	
4 weeks LPN1	0.168	100	16.81	1.98	8.1	2.2	Qualified
4 weeks LPN2	0.222	200	44.38	1.99	8.1	2.1	Qualified
4 weeks LPD1	0.194	200	38.88	2.05	7.1	1.8	Qualified
4 weeks LPD2	0.211	200	42.16	1.97	8.1	2.1	Qualified
4 weeks UTR1	0.138	300	41.49	1.94	7.2	2.0	Qualified
4 weeks UTR2	0.118	100	11.84	1.99	7.8	2.1	Qualified
12 weeks LPN1	0.211	100	21.09	1.97	7.6	1.9	Qualified
12 weeks LPN2	0.233	200	46.50	2.02	8.2	1.9	Qualified
12 weeks LPD1	0.312	200	62.40	1.90	7.4	1.9	Qualified
12 weeks LPD2	0.183	200	36.54	2.06	7.2	2.3	Qualified
12 weeks UTR1	0.103	200	20.58	2.01	8.1	2.3	Qualified
12 weeks UTR2	0.075	300	22.50	1.96	7.6	3.8	Qualified

LPN, the lateral pterygoid muscle was normal; LPD, the lateral pterygoid muscle was dissected; UTR, Sham surgery without treatment.

Table SII. Abbreviations of biological process in Gene Ontology-enrichment analysis.

Biological process	Abbreviation
Bone morphogenesis	BM
Cartilage development involved in endochondral bone morphogenesis	CEBM
Endochondral bone growth	EBG
Muscle contraction	MC
Positive regulation of NF- κ B transcription factor activity	NF- κ B TF
Ossification involved in bone maturation	OBM
Wnt signaling pathway involved in somitogenesis	WNT pathway
Cellular response to chemical stimulus	CRCS
Negative regulation of ossification	NRO
Cartilage development	CD
Response to external stimulus	RES
Response to stress	RS
Immune response	IR
Toll-like receptor signaling pathway	TLR pathway
Endochondral bone morphogenesis	EBM
Bone development	BD
Response to mechanical stimulus	RMS
Muscle structure development	MSD
Cellular response to endogenous stimulus	CRES

Table SIII. The primers sequence used for Reverse transcription-quantitative polymerase chain reaction.

Gene	Forward (5'-3')	Reverse (5'-3')
BMP7	AGGAGGGCTGGCTCGTTTT	TGGGGTTGATGCTCTGTCC
CALCR	GCCAGTTCAGATTCCACCTACTCT	TACCAAACCCCATCTTCCTCAC
FOS	CCTTCTCCAGCATGGGTTCT	GTCACTGTTGGGATGAAGTTGG
LECT1	GAGGGGAAAAGTGCTACATCAAA	CAGCCACCCAGATGAGAGAA
RPL19	AGCCTGTGACTGTCCATTCC	ACGTTACCTTCTCGGGCATT

BMP, bone morphogenic protein; RPL19, ribosomal protein L19; LECT1, chondromodulin; FOS, Fos proto-oncogene, AP-1 transcription factor subunit; CALCR, calcitonin receptor.