

Supplementary Table 1. Major fatty acid profile in the diets of different groups

Fatty acid	Normal	Model	DAG-L	DAG-H
C16:0	18.56±0.12	10.95±0.13	10.65±0.23	11.03±0.16
C18:0	8.06±0.07	4.06±0.06	4.31±0.06	4.11±0.02
C18:1n9c	26.17±0.06	24.868±0.08	24.93±0.08	24.53±0.05
C18:2n6c	40.76±0.14	51.335±0.07	51.98±0.11	51.37±0.17
C18:3n3c	4.84±0.05	6.44±0.06	6.40±0.06	6.75±0.08

Supplementary Table 2. Quantitative results of the femoral microstructure

Group	BV/TV	Conn-D	Tb.N	Tb.Th	Tb.Sp	SMI
Normal	0.136±0.035	46.57±3.59	3.30±0.33	0.068±0.004	0.31±0.034	1.85±0.27
Model	0.081±0.013	23.88±4.12	2.87±0.41	0.065±0.002	0.35±0.014	2.58±0.22
DAG-L	0.111±0.015	29.27±8.89	3.01±0.06	0.066±0.007	0.34±0.056	1.99±0.14
DAG-H	0.129±0.090	40.54±3.80	3.18±0.16	0.065±0.004	0.32±0.015	1.96±0.19

Note: Bone Volume Fraction (BV/TV), Connectivity Density (Conn.D), Trabecular Number (Tb.N), Trabecular Thickness (Tb.Th), Trabecular Separation (Tb.Sp), and Structure Model Index (SMI)