

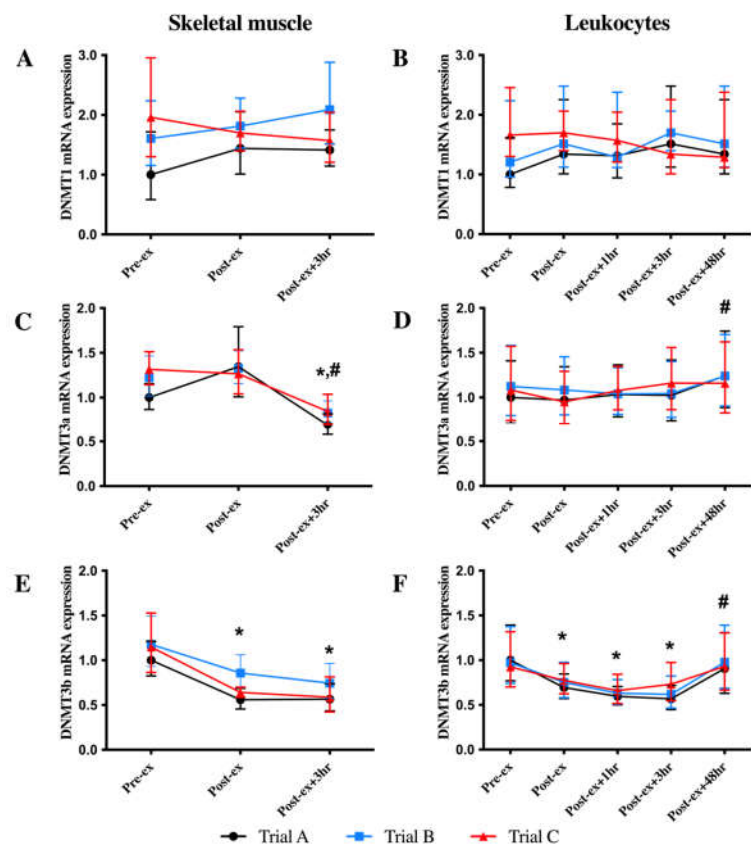
Supplementary Table S1. Serum concentrations of protein markers associated with inflammation and muscle damage. Data presented as the mean of each trial \pm standard deviations. LDH; Lactate dehydrogenase, Mb; Myoglobin, CK; Creatine Kinase.

Marker	Trial	Pre-ex	Post-ex	Post-ex+3hr	Post-ex+48hr
TNF- α (pg/mL)	A	0.26 \pm 0.25	0.23 \pm 0.19	0.29 \pm 0.27	0.25 \pm 0.22
	B	0.26 \pm 0.29	0.16 \pm 0.13	0.21 \pm 0.06	0.21 \pm 0.23
	C	0.12 \pm 0.06	0.2 \pm 0.11	0.27 \pm 0.32	0.30 \pm 0.27
IL-6 (pg/mL)	A	0.36 \pm 0.27	3.73 \pm 1.8	3.4 \pm 2.73	2.16 \pm 2.86
	B	0.5 \pm 0.39	2.66 \pm 1.88	2.68 \pm 1.15	0.66 \pm 0.83
	C	0.52 \pm 0.19	4.91 \pm 4.64	2.64 \pm 1.3	0.7 \pm 0.68
LDH (U/L)	A	214.74 \pm 71.44	238.16 \pm 66.88	293.28 \pm 84.59	291.44 \pm 114.51
	B	226.48 \pm 92.25	240.49 \pm 85.9	259.74 \pm 77.61	254.97 \pm 84.96
	C	226.64 \pm 65.12	243.23 \pm 63.16	265 \pm 65.04	247.95 \pm 67.79
Mb (μ g/L)	A	42.49 \pm 22.35	438.18 \pm 314.56	549.96 \pm 399.67	364.14 \pm 611.31
	B	35.31 \pm 11.26	201.43 \pm 121.66	210.97 \pm 134.8	34.23 \pm 11.81
	C	58.35 \pm 72.42	214.03 \pm 126.92	225.1 \pm 114.79	32.02 \pm 9.15
CK (U/L)	A	140.88 \pm 26.47	280.69 \pm 115.18	610.14 \pm 424.22	889.98 \pm 714.5
	B	163.38 \pm 65.72	264.35 \pm 111.26	397.45 \pm 200.04	429.48 \pm 220.21
	C	144.5 \pm 49	281.31 \pm 118.28	431.61 \pm 218.18	440.04 \pm 234.83

Supplementary Table S2. Methylation of skeletal muscle and leukocytes at baseline (Trial A, Pre-ex). $p < 0.05$ indicates a significant difference between tissues. Data presented as mean \pm SD.

CpG Site	Tissue	Methylation (%)	p
<i>TNF</i>			
CpG1	Skeletal Muscle	30.82 ± 5.11	<0.001
	Leukocytes	13.17 ± 2.70	
CpG2	Skeletal Muscle	25.03 ± 3.88	<0.001
	Leukocytes	10.53 ± 2.5	
CpG3	Skeletal Muscle	30.41 ± 3.17	<0.001
	Leukocytes	12.62 ± 3.42	
CpG4	Skeletal Muscle	50.87 ± 5.64	<0.001
	Leukocytes	14.65 ± 3.31	
CpG Mean	Skeletal Muscle	34.28 ± 4.38	<0.001
	Leukocytes	12.74 ± 2.58	
<i>IL6</i>			
CpG1	Skeletal Muscle	72.41 ± 6.93	0.002
	Leukocytes	91.10 ± 1.92	
CpG2	Skeletal Muscle	76.87 ± 4.46	<0.001

CpG3	Leukocytes	91.12 ± 1.19	0.008
	Skeletal Muscle	82.94 ± 3.97	
CpG4	Leukocytes	91.17 ± 3.09	<0.001
	Skeletal Muscle	66.08 ± 5.03	
CpG5	Leukocytes	88.89 ± 1.95	0.007
	Skeletal Muscle	72.23 ± 4.03	
CpG6	Leukocytes	82.01 ± 3.58	<0.001
	Skeletal Muscle	74.09 ± 5.38	
CpG Mean	Leukocytes	88.99 ± 2.3	<0.001
	Skeletal Muscle	74.10 ± 4.14	
	Leukocytes	88.87 ± 1.42	<0.001
	Skeletal Muscle	74.10 ± 4.14	



Supplementary Figure S1. Effect of exercise on the mRNA expression of (A&B) DNMT1, (C&D) DNMT3a and (E&F) DNMT3b in skeletal muscle (left-hand column) and leukocytes (right-hand column). *Indicates significantly different from Pre-ex; # indicates significantly different from Post-ex.