

Supplemental Table 1. Bivariate associations of physical activity (average steps per day) with potential confounding variables by timepoint

		Pre-camp (time 1)			During camp (time 2)			
		Average steps per day			Average steps per day			
		Low (n=27)	Medium (n=5)	P value	Low (n=1)	Medium (n=12)	High (n=19)	P value
Gender	Male	13	4	0.19	0	3	14	0.02
	Female	14	1		1	9	5	
Race	White	19	2	0.19	1	8	12	0.75
	non-White	8	3		0	4	7	
Treatment	On	4	1	0.77	0	3	2	0.51
	Off	23	4		1	9	17	
Age in years	Avg (SD)	13.3 (2.6)	12.6 (2.9)	0.57	*	13.0 (2.6)	13.4 (2.7)	0.70
Body mass index	Avg (SD)	24.1 (6.2)	20.1 (3.7)	0.18	*	22.3 (6.6)	24.2 (5.7)	0.39

*For analytical reasons the lone subject in the Low steps category was included in the Medium steps category

Supplemental Table 2. Bivariate associations of fatigue with potential confounding variables by timepoint

		Pre-camp (time 1)			During camp (time 2)		
		Fatigue			Fatigue		
		Low (n=21)	High (n=11)	P value	Low (n=24)	High (n=8)	P value
Gender	Male	11	6	0.91	11	6	0.15
	Female	10	5		13	2	
Race	White	12	9	0.16	15	6	0.52
	non-White	9	2		9	2	
Treatment	On	2	3	0.19	4	1	0.78
	Off	19	8		30	7	
Age in years	Avg (SD)	13.4 (2.5)	12.8 (2.9)	0.54	13.4 (2.4)	12.8 (3.2)	0.56
Body mass index	Avg (SD)	23.0 (5.0)	24.4 (7.9)	0.53	23.7 (5.7)	22.7 (7.5)	0.69

Supplemental Table 3. Metabolomic associations with Physical Activity stratified by Sex (Boys)

Metabolic Pathway	Total metabolites	Hits	P value	FDR
Glycine, serine and threonine metabolism	33	3	0.009	0.40
Cysteine and methionine metabolism	33	3	0.009	0.40
Pyruvate metabolism	22	2	0.04	0.93
Glycolysis / Gluconeogenesis	26	2	0.05	0.93
Alanine, aspartate and glutamate metabolism	28	2	0.06	0.93
Arginine and proline metabolism	38	2	0.09	1

The Kyoto Encyclopedia of Genes and Genomes defined the metabolic pathways and metabolite library

Supplemental Table 4. Metabolomic associations with Physical Activity stratified by Sex (Girls)

Metabolic Pathway	Total metabolites	Hits	P value	FDR
Glycine, serine and threonine metabolism	33	3	0.003	0.24
Pentose phosphate pathway	22	2	0.02	0.68
Galactose metabolism	27	2	0.02	0.68
Glyoxylate and dicarboxylate metabolism	32	2	0.03	0.70
Amino sugar and nucleotide sugar metabolism	37	2	0.04	0.73
Fatty acid biosynthesis	47	2	0.07	0.75
Aminoacyl-tRNA biosynthesis	48	2	0.07	0.75
Purine metabolism	65	2	0.12	1.00

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Supplemental Table 5. Metabolomic associations with Physical Activity stratified by Treatment Status (off therapy)

Metabolic Pathway	Total metabolites	Hits	P value	FDR
Galactose metabolism	27	3	0.00613	0.454
Glycine, serine and threonine metabolism	33	3	0.0108	0.454
Pentose phosphate pathway	22	2	0.0387	1
Purine metabolism	65	3	0.0641	1
Aminoacyl-tRNA biosynthesis	48	2	0.151	1

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