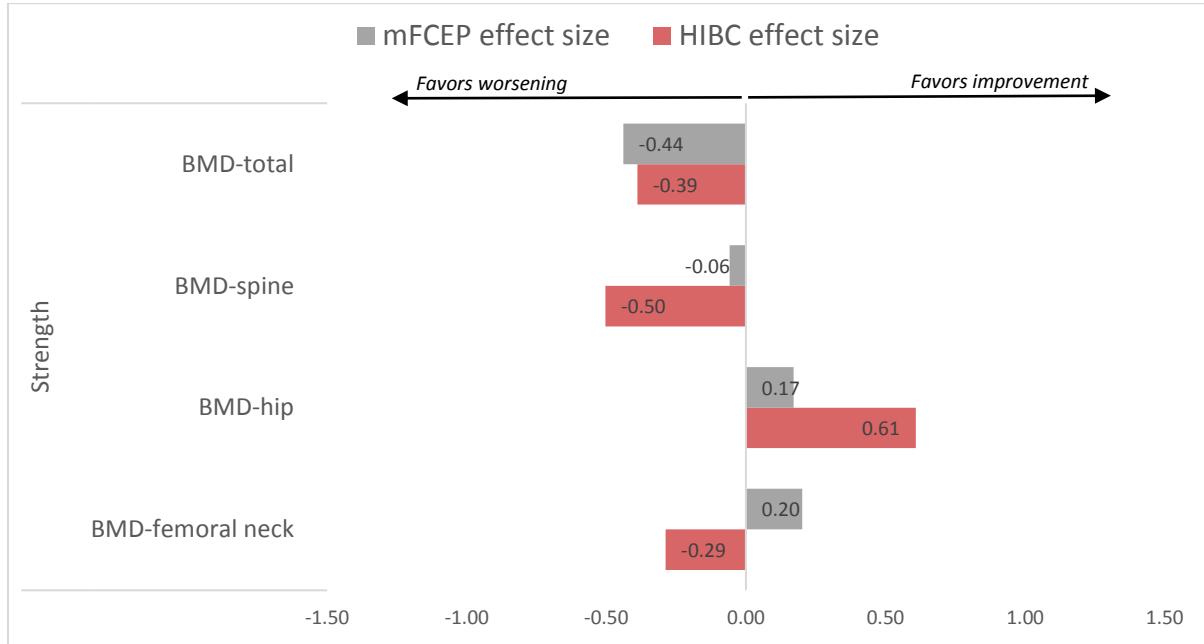


## Supplement B – Bone Mineral Density and Body Composition

Bone mineral densiometry (BMD; General Electric Lunar Prodigy Dual-Energy X-ray Absorptiometry Scan; GE Healthcare Lunar, Madison, WI 53707) was done for bone strength and body composition (fat percentage, lean muscle mass).

**Figure 1.** Effect sizes (Cohen's D) for the HIBC and UC for pre to post BMD data. A positive effect size value suggests improvement whereas a negative effect size value suggests that that outcome got worse over time



**Table 1.** Mean, standard error (SE), and 95% confidence interval (CI) for BMD for each treatment arm. Statistically significant differences are noted with a \*.

Domain	Variable	Arm	Pre mean $\pm$ SE 95% CI	Post mean $\pm$ SE 95% CI	6 month mean $\pm$ SE 95% CI	Pre to Post p value	Post to 6 month p value
	<b>BMD total (T-score)</b>	<b>HIBC</b>	<b>1.29<math>\pm</math>.06</b> CI: 1.17-1.41	<b>1.29<math>\pm</math>.06</b> CI: 1.16-1.41	<b>1.27<math>\pm</math>.06</b> CI: 1.14-1.39	.221	.889
	Higher score=more bone density	<b>UC</b>	<b>1.15<math>\pm</math>.05</b> CI: 1.04-1.26	<b>1.14<math>\pm</math>.05</b> CI: 1.02-1.25	<b>1.16<math>\pm</math>.06</b> CI: 1.04-1.28	.327	.0504
	<b>BMD spine (T-score)</b>	<b>HIBC</b>	<b>1.21<math>\pm</math>.08</b> CI: 1.04-1.37	<b>1.19<math>\pm</math>.08</b> CI: 1.03-1.34	<b>1.18<math>\pm</math>.07</b> CI: 1.04-1.33	.130	.483
	Higher score=more bone density	<b>UC</b>	<b>1.09<math>\pm</math>.07</b> CI: 0.93-1.24	<b>1.09<math>\pm</math>.07</b> CI: 0.94-1.24	<b>1.08<math>\pm</math>.07</b> CI: 0.94-1.21	.726	.236
	<b>BMD hip (T-score)</b>	<b>HIBC</b>	<b>1.05<math>\pm</math>.06</b> CI: 0.92-1.17	<b>1.07<math>\pm</math>.07</b> CI: 0.93-1.21	<b>1.06<math>\pm</math>.06</b> CI: 0.93-1.18	.047*	.944
	Higher score=more bone density	<b>UC</b>	<b>0.93<math>\pm</math>.06</b> CI: 0.81-1.05	<b>0.94<math>\pm</math>.06</b> CI: 0.81-1.07	<b>0.93<math>\pm</math>.06</b> CI: 0.82-1.05	.477	.515
<b>Strength</b>	<b>Total body fat (% body fat)</b>	<b>HIBC</b>	<b>31.7<math>\pm</math>3.1</b> CI: 25.1-38.2	<b>31.1<math>\pm</math>3.0</b> CI: 24.8-37.4	<b>31.8<math>\pm</math>3.0</b> CI: 25.4-38.2	.306	.161
		<b>UC</b>	<b>36.2<math>\pm</math>2.9</b> CI: 30.0-42.3	<b>36.0<math>\pm</math>2.8</b> CI: 30.1-42.0	<b>35.6<math>\pm</math>2.8</b> CI: 29.6-41.7	.812	.192
	<b>Lean mass (lbs)</b>	<b>HIBC</b>	<b>65.6<math>\pm</math>2.8</b> CI: 59.6-71.6	<b>66.2<math>\pm</math>2.7</b> CI: 60.4-71.9	<b>65.5<math>\pm</math>2.7</b> CI: 59.7-71.4	.248	.161
		<b>UC</b>	<b>61.6<math>\pm</math>2.7</b> CI: 56.0-67.3	<b>61.7<math>\pm</math>2.6</b> CI: 56.3-67.2	<b>62.1<math>\pm</math>2.6</b> CI: 56.6-67.6	.813	.214
	<b>Weight (lbs)</b>	<b>HIBC</b>	<b>175.6<math>\pm</math>17.8</b> CI: 137.4-213.8	<b>176.6<math>\pm</math>17.3</b> CI: 139.5-213.7	<b>175.3<math>\pm</math>16.6</b> CI: 139.7-210.8	.789	.401
		<b>UC</b>	<b>186.9<math>\pm</math>17.8</b> CI: 148.4-224.8	<b>186.9<math>\pm</math>17.3</b> CI: 149.8-224.1	<b>183.9<math>\pm</math>16.6</b> CI: 148.4-219.5	.767	.263