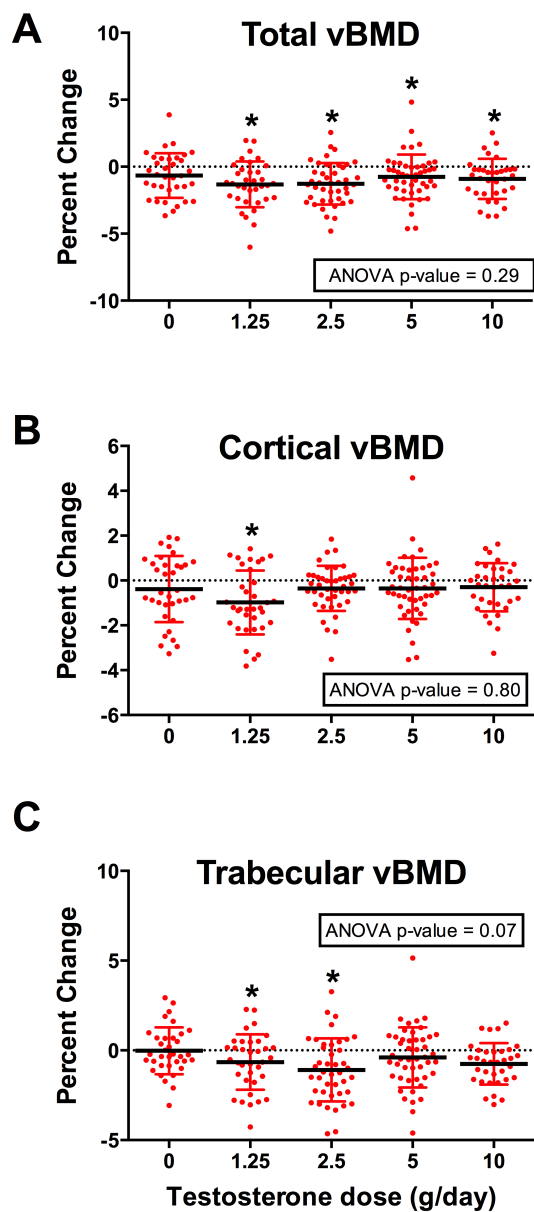


**Supplemental Figure 1.** Percent Change From Baseline in Volumetric Bone Mineral Density (vBMD) at the Distal Tibia Among Men Receiving Anastrozole and Testosterone. Results are shown for total vBMD (A), cortical vBMD (B), and trabecular vBMD (C). Subjects in Cohort 2 (red dots, n=97) received goserelin acetate plus anastrozole 1 mg per day plus 0 (placebo), 1.25, 2.5, 5, or 10 g of testosterone gel daily. The horizontal black line represents the mean, and the error bars represent  $\pm 1$  standard deviation.

ANOVA p-value is displayed for analysis of differences between dose groups

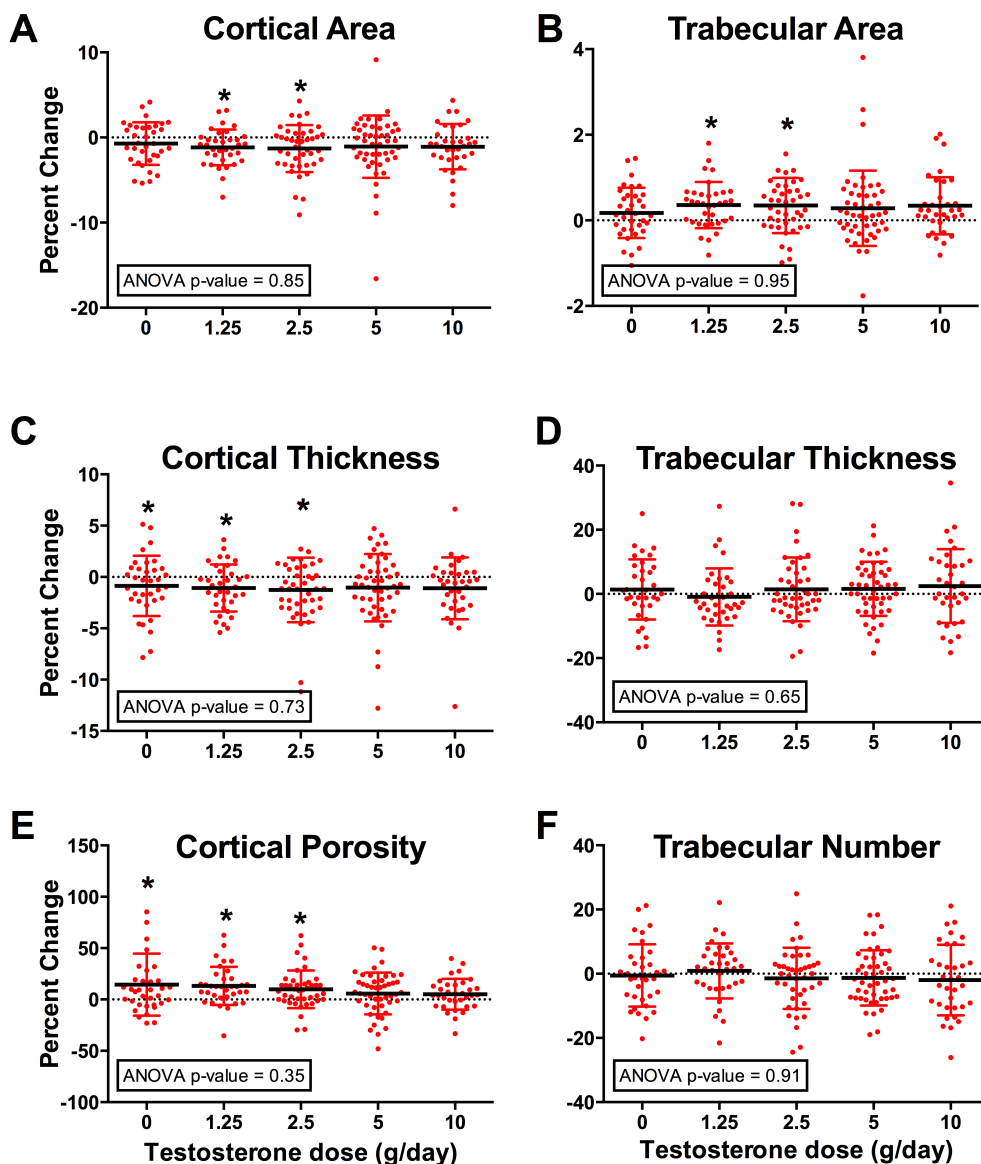
\*Denotes changes that significantly different versus baseline using two-tailed paired t-tests.

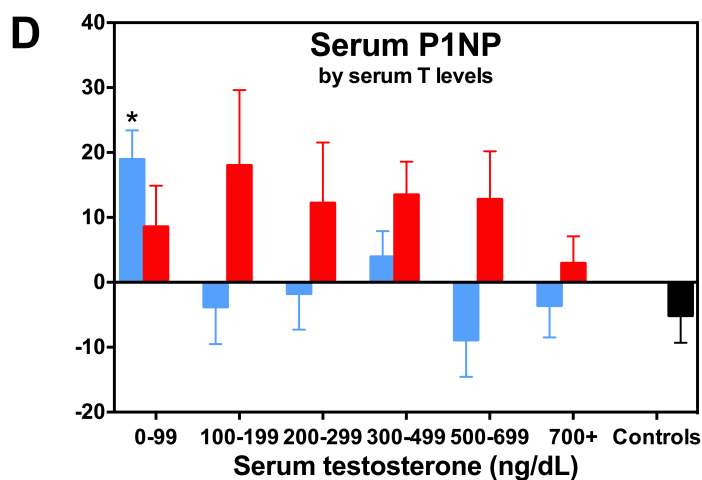
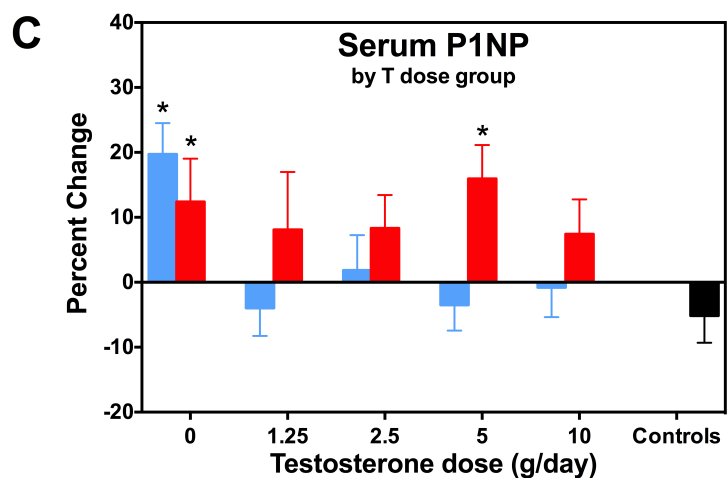
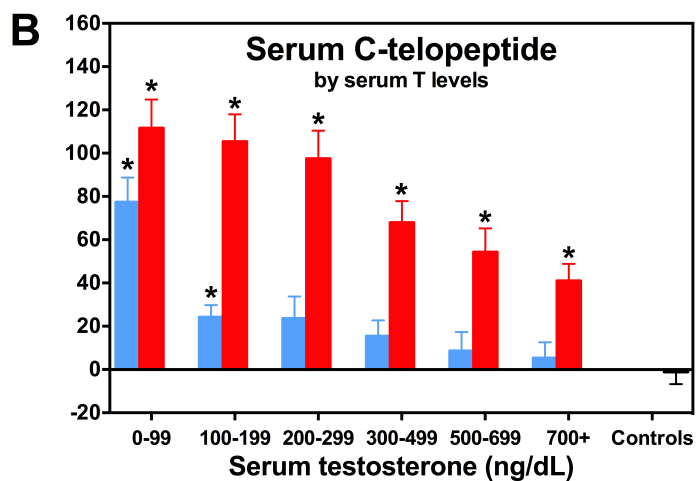
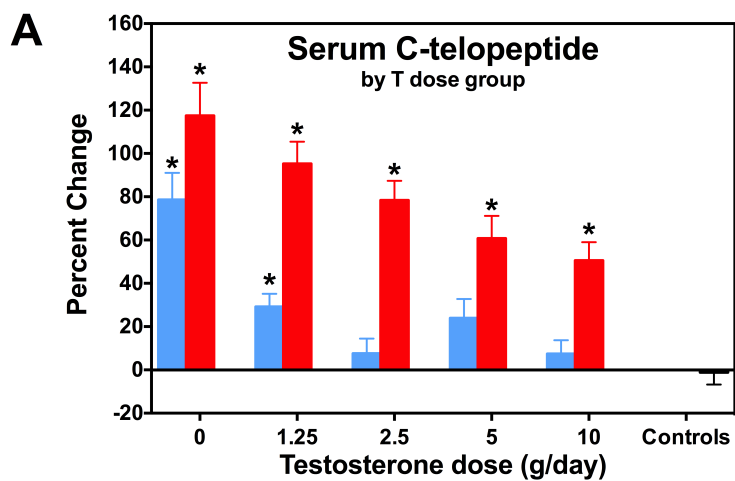
## TIBIA



**Supplemental Figure 2.** Percent Change From Baseline in Bone Microarchitecture at the Distal Tibia Among Men Receiving Anastrozole and Testosterone. Results are shown for cortical (left panels) and trabecular microarchitecture (right panels). Subjects in Cohort 2 (red dots, n=97) received goserelin acetate plus anastrozole 1 mg per day plus 0 (placebo), 1.25, 2.5, 5, or 10 g of testosterone gel daily. The horizontal black line represents the mean, and the error bars represent  $\pm 1$  standard deviation. ANOVA p-value is displayed for analysis of differences between dose groups. \*Denotes changes that are significantly different versus baseline using two-tailed paired t-tests.

## TIBIA



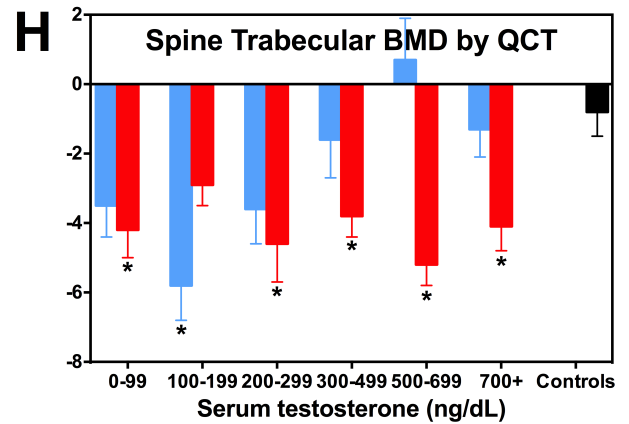
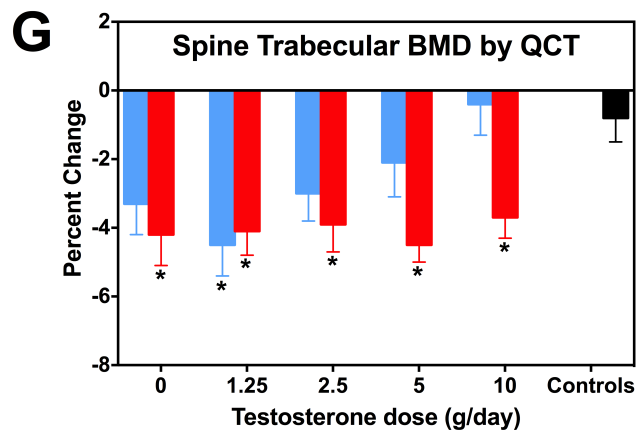
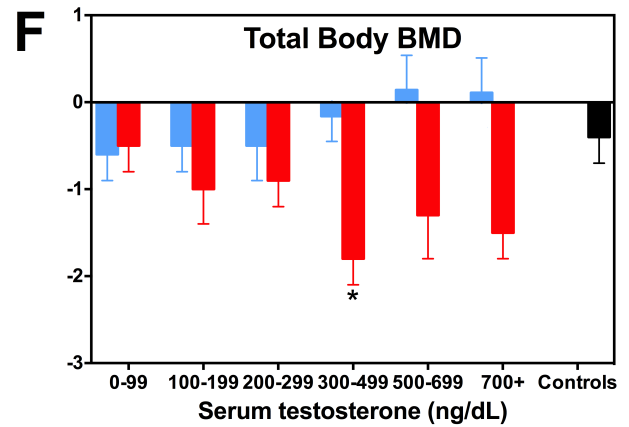
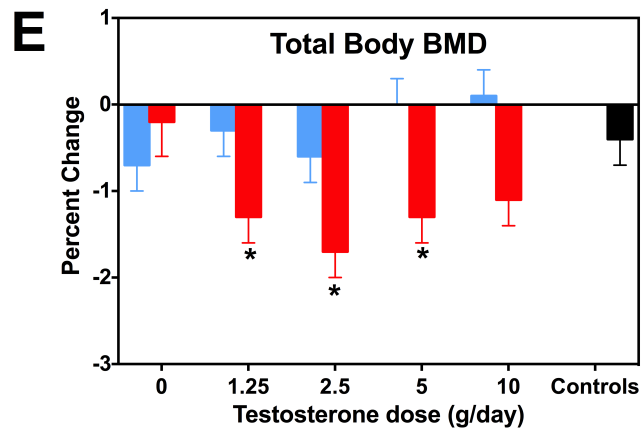
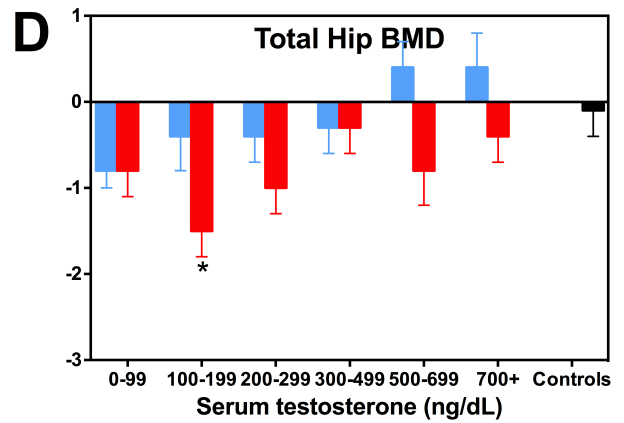
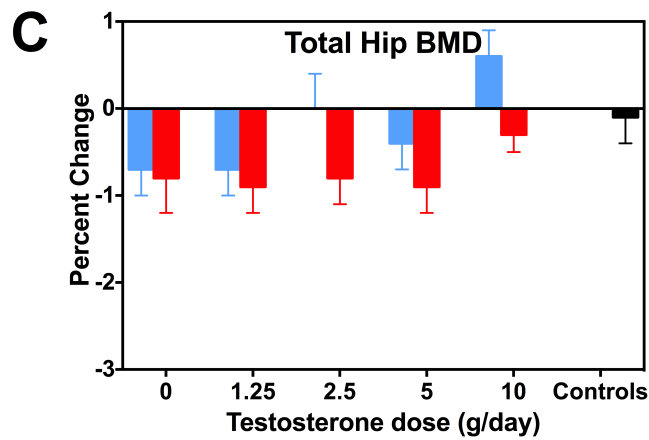
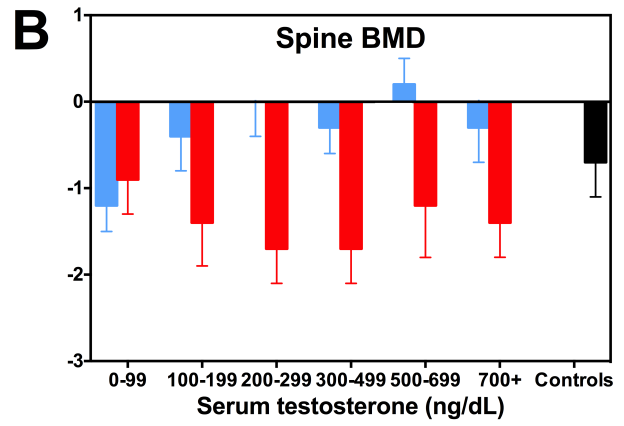
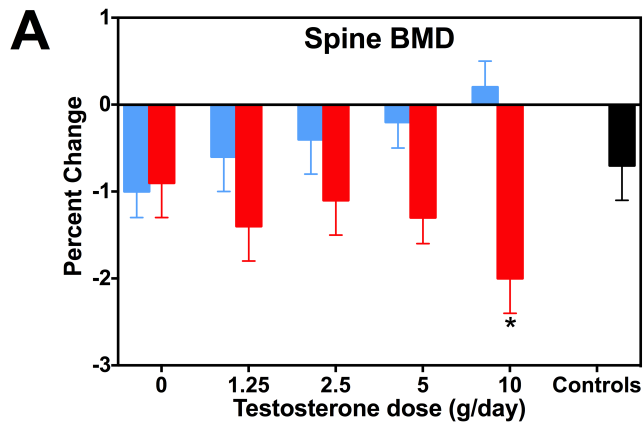


### Supplementary Figure 3

The bar graphs shown here represent the same data shown in Figure 3

by T Dose Group

by Serum T Levels

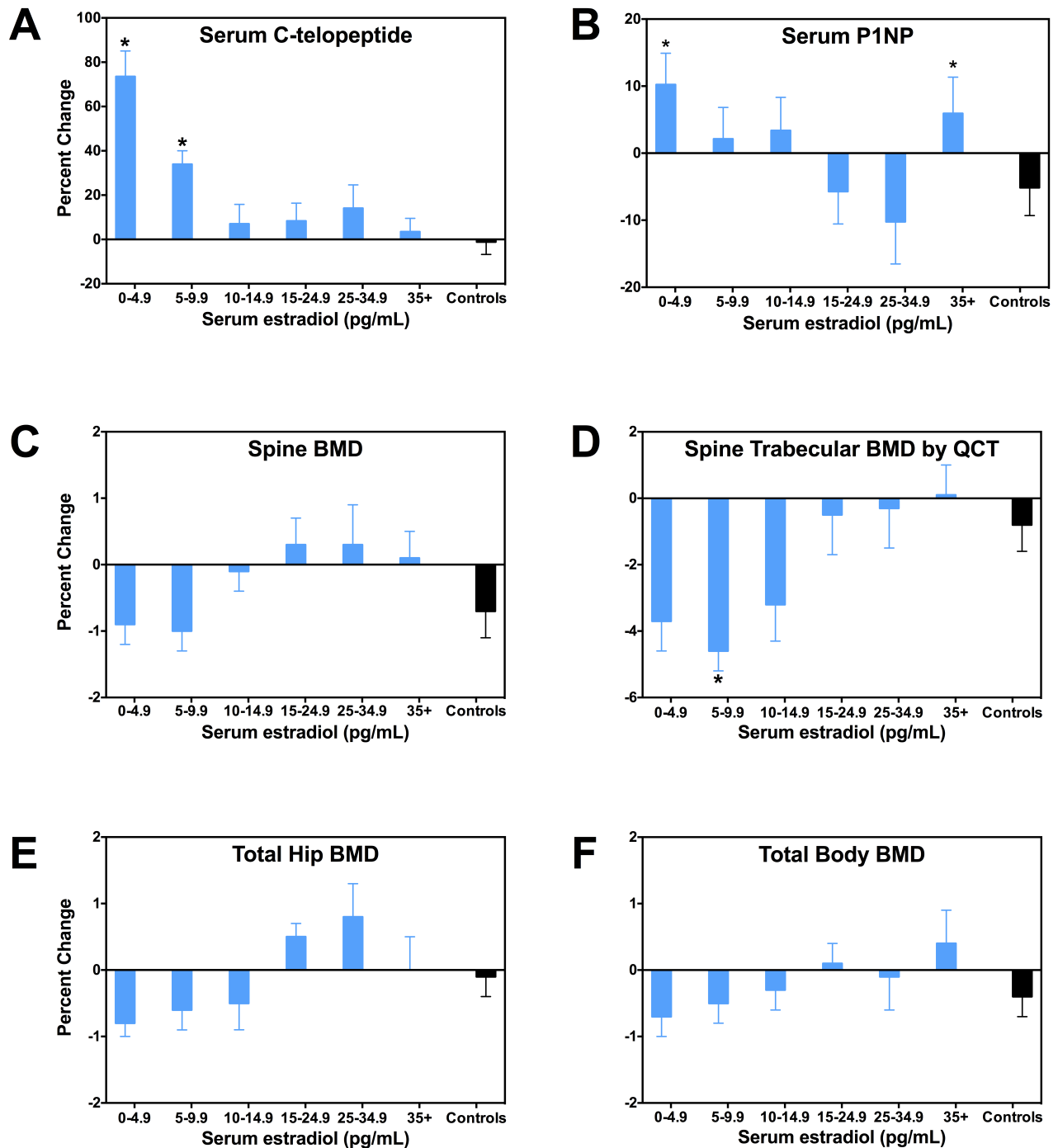


## Supplementary Figure 4

The bar graphs shown here represent the same data shown in Figure 4



## by Serum E Levels



## Supplementary Figure 5

The bar graphs shown here represent the same data shown in Figure 5

**Supplemental Table 1: Number of Men Belonging to Each Racial Group in Cohort 1, Cohort 2, and Controls**

Race	Cohort 1	Cohort 2	Controls	Total	Hispanic*
American Indian or Alaska Native	1	1	0	2	0
Asian	12	10	5	27	0
Black or African-American	24	28	5	57	1
Native Hawaiian or Other Pacific Islander	1	1	0	2	0
White	151	150	25	326	7
Mixed	4	2	0	6	1
Refused	5	10	2	17	12
<b>Totals</b>	<b>198</b>	<b>202</b>	<b>37</b>	<b>437</b>	<b>21</b>

\*The total number of men in each racial group who also self-identified as Hispanic ethnicity

**Supplemental Table 2:** Reasons for Discontinuing the Study Protocol Prematurely

Reason for early discontinuation	Cohort 1	Cohort 2	Controls
Known symptoms of hypogonadism*	18	19	2
Transient increase in liver enzymes	3	3	0
Non-Compliance	3	0	0
Lost to follow-up	9	5	1
Did not provide a reason	5	15	1
<b>Totals</b>	<b>38</b>	<b>42</b>	<b>4</b>

\*hot flashes, decrease in libido and/or potency, or increased fatigue