Supplementary Methods

All sex hormone assays were performed in a CLIA/CAP accredited core laboratory using standardized methodologies (see package inserts referenced below) and rigorous laboratory QC procedures.

DHEAS
Assay validity was determined from the Abbott Architect DHEA-S 2009 system package insert (Abbott Laboratories, Abbott Park, Illinois, United States). The assay had an estimated analytical sensitivity of $\leq 3.0$ µg/dL. The assay accuracy, in comparison to a commercially available diagnostic assay, was satisfactory (number of samples: 550, Pearson’s $r$: 0.98). Cross-reactivity with structurally similar compounds was minimal.

Testosterone
Assay validity was determined from the Abbott Architect Testosterone 2006 system package insert (Abbott Laboratories). The assay had an estimated functional sensitivity of 0.14 ng/mL. The assay accuracy, in comparison to gas chromatography/mass spectrometry (GC/MS), was satisfactory (number of samples: 102, Pearson’s $r$: 0.996). Cross-reactivity with structurally similar non-testosterone compounds was generally non-existing or minimal.

SHBG
Assay validity was determined from the Abbott Architect SHBG 2007 system package insert (Abbott Laboratories). The assay had an estimated analytical sensitivity of $\leq 0.1$ nmol/L. The assay accuracy, in comparison to a commercially available diagnostic assay, was satisfactory (number of samples: 626, Pearson’s $r$: 0.98). When tested in the presence of structurally similar compounds, the assay has no detectable cross-reactivity.