SUPPLEMENTAL MATERIAL

Table I: Women's Health Initiative Ancillary Studies Measuring Sex Hormone Binding Globulin (SHBG)

Ancillary	Description of Cases/ Controls		
Study			
Number			
90	400 hip fracture, 400 controls		
110	385 coronary heart disease (CHD), 385 controls		
167	311 breast cancer, 592 controls		
238*	700 type II diabetes, 1400 controls		
W9	750 controls, 750 hip fractures		
BA7	753 coronary heart disease, 534 stroke, 422 venous thromboembolism, 204 spir		
	fracture, 830 fracture excluding spine or hip, 873 controls		
BA9	1132 general fracture, 1132 control		
BA21	400 colorectal cancer, 800 controls		
W5**	150 DM intervention, 150 DM controls at B and Y1		
W10	755 breast cancer, 755 controls		
W18	120 HT hormone pretest active controls, 120 placebo controls		

^{*}Conducted using electrochemiluminescence immunoassays from Roche Diagnostics at UCLA.1

All other ancillary studies were conducted using Chemiluminescent Immunoassay/radioimmunoassay from Siemens Medical Solutions Diagnostics at the Reproductive Endocrine Research Laboratory at the University of Southern California.³

Table II: Hazards of Incident Ischemic Stroke in the Women's Health Initiative by Sex Hormone Binding Globulin Quintile, Adjusted for a History of Liver Disease

	Model 1*	Model 2**	Model 3†
SHBG	HR (95%CI)	HR (95%CI)	HR (95%CI)
Q1	1.88 (1.47-2.41)	1.69 (1.31-2.19)	1.61 (1.19-2.19)
Q2	1.34 (1.03-1.73)	1.27 (0.98-1.65)	1.24 (0.91-1.68)
Q3	1.45 (1.13-1.85)	1.40 (1.09-1.80)	1.44 (1.08-1.92)
Q4	1.49 (1.16-1.91)	1.46 (1.14-1.87)	1.49 (1.12-1.98)
Q5	Reference	Reference	Reference

Q1: Lowest quintile; Q5: Highest quintile; *Adjusted for age, race/ethnicity, history of liver disease, SHBG assay as strata variable; **Adjusted for Model 1 and body mass index, history of hypertension, alcohol use, and smoking status; †Adjusted for Model 2 and physical activity, age at menopause, parity, use of menopausal hormone therapy at baseline, history of using oral contraceptives, age at menarche.

^{**} IRMA-immunoradiometric assay using monoclonal antibody labeled with (125) at Esoterix Laboratory Services Inc. (Calabasas Hills, CA).²

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SUPPLEMENTAL REFERENCES

- 1. Chen BH, Brennan K, Goto A, Song Y, Aziz N, You NC, et al. Sex hormone-binding globulin and risk of clinical diabetes in American Black, Hispanic, and Asian/Pacific Islander postmenopausal women. *Clin Chem.* 2012;58:1457-66.
- 2. McTiernan A, Wu L, Barnabei VM, Chen C, Hendrix S, Modugno F, et al. Relation of demographic factors, menstrual history, reproduction and medication use to sex hormone levels in postmenopausal women. *Breast Cancer Res Treat*. 2008;108:217-231.
- 3. Lee JS, LaCroix AZ, Wu L, Cauley JA, Jackson RD, Kooperberg C et al. Associations of serum sex hormone-binding globulin and sex hormone concentrations with hip fracture risk in postmenopausal women. *J Clin Endocrinol Metab*. 2008;93:1796-803.