



## Selección de Resúmenes de Menopausia

Semana del 9 al 15 de Julio de 2014

Juan Enrique Blümel. Departamento Medicina Sur. Universidad de Chile

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### **Simultaneous Association of Total Energy Consumption and Activity-Related Energy Expenditure With Risks of Cardiovascular Disease, Cancer, and Diabetes Among Postmenopausal Women.**

Zheng C, Beresford SA, Van Horn L, Tinker LF, Thomson CA, Neuhouser ML, Di C, Manson JE, Mossavar-Rahmani Y, Seguin R, Manini T, LaCroix AZ, Prentice RL.

Total energy consumption and activity-related energy expenditure (AREE) estimates that have been calibrated using biomarkers to correct for measurement error were simultaneously associated with the risks of cardiovascular disease, cancer, and diabetes among postmenopausal women who were enrolled in the Women's Health Initiative at 40 US clinical centers and followed from 1994 to the present. Calibrated energy consumption was found to be positively related, and AREE inversely related, to the risks of various cardiovascular diseases, cancers, and diabetes. These associations were not evident in most corresponding analyses that did not correct for measurement error. However, an important analytical caveat relates to the role of body mass index (BMI) (weight (kg)/height (m)<sup>2</sup>). In the calibrated variable analyses, BMI was regarded, along with self-reported data, as a source of information on energy consumption and physical activity, and BMI was otherwise excluded from the disease risk models. This approach cannot be fully justified with available data, and the analyses herein imply a need for improved dietary and physical activity assessment methods and for longitudinal self-reported and biomarker data to test and relax modeling assumptions. Estimated hazard ratios for 20% increases in total energy consumption and AREE, respectively, were as follows: 1.49 (95% confidence interval: 1.18, 1.88) and 0.80 (95% confidence interval: 0.69, 0.92) for total cardiovascular disease; 1.43 (95% confidence interval: 1.17, 1.73) and 0.84 (95% confidence interval: 0.73, 0.96) for total invasive cancer; and 4.17 (95% confidence interval: 2.68, 6.49) and 0.60 (95% confidence interval: 0.44, 0.83) for diabetes.

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### **Circulating leptin, resistin, adiponectin, visfatin, adipisin and ghrelin levels and insulin resistance in postmenopausal women with and without the metabolic syndrome.**

Chedraui P<sup>1</sup>, Pérez-López FR<sup>2</sup>, Escobar GS<sup>3</sup>, Palla G<sup>4</sup>, Montt-Guevara M<sup>4</sup>, Cecchi E<sup>4</sup>, Genazzani AR<sup>4</sup>, Simoncini T<sup>4</sup>; Research Group for the Omega Women's Health Project.

**OBJECTIVE:** To measure serum levels of adipisin, leptin, resistin, adiponectin, visfatin, ghrelin and insulin in postmenopausal women screened for the metabolic syndrome (METS). **METHODS:** Serum of 100 postmenopausal women was analyzed using multiplex technology for the mentioned analytes. In addition, values for the homeostasis model assessment of insulin resistance (HOMA-IR) were calculated. Comparisons were performed in accordance to the presence or not of the METS and each of its components. Criteria of the American Heart Association were used to define the METS. **RESULTS:** Age and time since menopause onset were similar in women with the METS (n=57) as compared to those without the syndrome (n=43). METS women displayed significantly higher levels of adipisin, leptin, resistin, insulin and HOMA-IR values and lower adiponectin levels. These differences were mainly observed among women with abdominal obesity, independent of fulfilling METS criteria or not. In this same sense, lower adiponectin levels significantly related to low HDL-C and high triglyceride levels; and higher insulin and HOMA-IR values related to high triglyceride and glucose levels, respectively. **CONCLUSION:** In this sample, postmenopausal women with the METS displayed higher insulin and adipokine levels. These were mainly related to abdominal obesity and metabolic and lipid abnormalities. More research is warranted in this regard.

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## **Combined conjugated esterified estrogen plus methyltestosterone supplementation and risk of breast cancer in postmenopausal women.**

Kabat GC<sup>1</sup>, Kamensky V<sup>2</sup>, Heo M<sup>2</sup>, Bea JW<sup>3</sup>, Hou L<sup>4</sup>, Lane DS<sup>5</sup>, Liu S<sup>6</sup>, Qi L<sup>7</sup>, Simon MS<sup>8</sup>, Wactawski-Wende J<sup>9</sup>, Rohan TE<sup>2</sup>.

**OBJECTIVES:** Testosterone supplementation is being prescribed increasingly to treat symptoms of hormone deficiency in pre- and postmenopausal women; however, studies of the association of testosterone therapy, alone or in combination with estrogen, with risk of breast cancer are limited. The current study assessed the association of combination conjugated esterified estrogen and methyltestosterone (CEE+MT) use and breast cancer risk in postmenopausal women in the Women's Health Initiative (WHI). **STUDY DESIGN:** At Year 3 of follow-up, women in the WHI observational study (N=71,964) provided information on CEE+MT use in the past two years, duration of use, and the brand name of the product. In addition, in each of years 4-8, women were asked whether they had used CEE+MT in the previous year. After 10 years of follow-up, 2832 incident breast cancer cases were identified. Cox proportional hazards models were used to estimate hazard ratios (HR) and 95% confidence intervals (95% CI) for the association of CEE+MT use (irrespective of use of other hormones) and of exclusive CEE+MT use in relation to breast cancer risk. **RESULTS:** Neither CEE+MT use nor exclusive use of CEE+MT was associated with risk: multivariable-adjusted HR 1.06, 95% CI 0.82-1.36 and HR 1.22, 95% CI 0.78-1.92, respectively. Among women with a natural menopause, the HR for exclusive use was 1.32 (95% CI 0.68-2.55). There was no indication of an association when repeated measures of CEE+MT use were included in a time-dependent covariates analysis. **CONCLUSION:** The present study, the largest prospective study to date, did not show a significant association of CEE+MT supplementation and risk of breast cancer.

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## **Partly Replacing Meat Protein with Soy Protein Alters Insulin Resistance and Blood Lipids in Postmenopausal Women with Abdominal Obesity.**

van Nielen M<sup>1</sup>, Feskens EJ<sup>1</sup>, Rietman A<sup>1</sup>, Siebelink E<sup>1</sup>, Mensink M<sup>2</sup>.

Increasing protein intake and soy consumption appear to be promising approaches to prevent metabolic syndrome (MetS). However, the effect of soy consumption on insulin resistance, glucose homeostasis, and other characteristics of MetS is not frequently studied in humans. We aimed to investigate the effects of a 4-wk strictly controlled weight-maintaining moderate high-protein diet rich in soy on insulin sensitivity and other cardiometabolic risk factors. We performed a randomized crossover trial of 2 4-wk diet periods in 15 postmenopausal women with abdominal obesity to test diets with 22 energy percent (En%) protein, 27 En% fat, and 50 En% carbohydrate. One diet contained protein of mixed origin (mainly meat, dairy, and bread), and the other diet partly replaced meat with soy meat analogues and soy nuts containing 30 g/d soy protein. For our primary outcome, a frequently sampled intravenous glucose tolerance test (FSIGT) was performed at the end of both periods. Plasma total, LDL, and HDL cholesterol, triglycerides, glucose, insulin, and C-reactive protein were assessed, and blood pressure, arterial stiffness, and intrahepatic lipid content were measured at the start and end of both periods. Compared with the mixed-protein diet, the soy-protein diet resulted in greater insulin sensitivity [FSIGT: insulin sensitivity,  $34 \pm 29$  vs.  $22 \pm 17$  (mU/L)<sup>-1</sup> · min<sup>-1</sup>, P = 0.048; disposition index,  $4974 \pm 2543$  vs.  $2899 \pm 1878$ , P = 0.038; n = 11]. Total cholesterol was 4% lower after the soy-protein diet than after the mixed-protein diet ( $4.9 \pm 0.7$  vs.  $5.1 \pm 0.6$  mmol/L, P = 0.001), and LDL cholesterol was 9% lower ( $2.9 \pm 0.7$  vs.  $3.2 \pm 0.6$  mmol/L, P = 0.004; n = 15). Thus, partly replacing meat with soy in a moderate high-protein diet has clear advantages regarding insulin sensitivity and total and LDL cholesterol. Therefore, partly replacing meat products with soy products could be important in preventing MetS.

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## **Can physical activity prevent physical and cognitive decline in postmenopausal women?: A systematic review of the literature.**

Anderson D<sup>1</sup>, Seib C<sup>2</sup>, Rasmussen L<sup>3</sup>.

**BACKGROUND:** Participation in regular physical activity is among the most promising and cost effective strategies to reduce physical and cognitive decline and premature death. However, confusion remains about the amount,

frequency, and duration of physical activity that is likely to provide maximum benefit as well as the way in which interventions should be delivered. AIMS: This paper aimed to review research on the impact of leisure-time and general physical activity levels on physical and cognitive decline in postmenopausal women. In a systematic review of the literature, empirical literature from 2009 to 2013 is reviewed to explore the potential impact of either commencing or sustaining physical activity on older women's health. RESULTS: All studies found that physical activity was associated with lower rates of cognitive and physical decline and a significant reduction in all-cause mortality. In this review we found that exercise interventions (or lifestyle activities) that improved cardiorespiratory exercise capacity showed the most positive impact on physical health. CONCLUSIONS: Findings suggest that programs should facilitate and support women to participate in regular exercise by embedding physical activity programs in public health initiatives, by developing home-based exercise programs that require few resources and by creating interventions that can incorporate physical activity within a healthy lifestyle. The review also suggests that clinicians should consider prescribing exercise in a tailored manner for older women to ensure that it is of a high enough intensity to obtain the positive sustained effects of exercise.

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### **Risks of Endometrial Cancer Associated With Different Hormone Replacement Therapies in the E3N Cohort, 1992-2008.**

Fournier A, Dossus L, Mesrine S, Vilier A, Boutron-Ruault MC, Clavel-Chapelon F, Chabbert-Buffet N.

We assessed whether different oral progestogens in hormone replacement therapy may differentially affect the risk of endometrial cancer, using data from the Etude Epidémiologique auprès de femmes de l'Education Nationale (E3N), a French cohort study (1992-2008). Hazard ratios and their confidence intervals were derived from Cox models. Among 65,630 postmenopausal women (mean follow-up: 10.8 years), 301 endometrial cancers occurred. Compared with never use, ever use of estrogen + micronized progesterone was associated with an increased risk of endometrial cancer (hazard ratio (HR) = 1.80, 95% confidence interval (CI): 1.38, 2.34) that was significantly more marked with longer duration of use (for  $\leq 5$  years, HR = 1.39 (95% CI: 0.99, 1.97); for  $>5$  years, HR = 2.66 (95% CI: 1.87, 3.77)). Although use of estrogen + dydrogesterone was not associated overall with endometrial cancer risk (HR = 1.05, 95% CI: 0.76, 1.45), there was a significantly increased risk with long-term use compared with never use (for  $>5$  years, HR = 1.69, 95% CI: 1.06, 2.70). Users of preparations containing other progesterone derivatives or a nonsteroid derivative were not at significantly increased risk (HR = 0.79 (95% CI: 0.60, 1.05) and HR = 1.30 (95% CI: 0.85, 1.99), respectively). In conclusion, micronized progesterone and, to a lesser extent, dydrogesterone at the doses used in France may not be sufficient to prevent estrogen-induced endometrial cancers.