



# Menopause

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**POSTMASTER:** Send address changes to *Menopause: The Journal of The North American Menopause Society*, P.O. Box 1610, Hagerstown, MD 21740.

## Original Studies

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### **Physiologic vasomotor symptoms are associated with verbal memory dysfunction in breast cancer survivors**

Jessica Fogel, PhD, Leah H. Rubin, PhD, MPH, Ece Kilic, MS,  
David R. Walega, MD, MCI, and Pauline M. Maki, PhD

*The present study aimed to investigate the association between vasomotor symptoms and cognitive function among women with a history of breast cancer. Results showed that independent of their effect on sleep, vasomotor symptoms may be a modifiable contributor to memory difficulties in women with breast cancer.*

SDC

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### **Cognitive complaints are associated with smaller right medial temporal gray-matter volume in younger postmenopausal women**

Alexander C. Conley, PhD, Kimberly M. Albert, PhD, Brian D. Boyd, BS,  
Shin-Gyeom Kim, MD, Sepideh Shokouhi, PhD, Brenna C. McDonald, PsyD,  
Andrew J. Saykin, PsyD, Julie A. Dumas, PhD, and Paul A. Newhouse, MD

*This study showed that increased endorsement of subjective cognitive complaints was associated with smaller right medial temporal volumes in healthy postmenopausal women aged 50-60 years. Depressive and somatic symptoms were also related to gray-matter volume, but objective cognitive performance was not, indicating that subjective ratings may be more sensitive to detect cortical changes in younger postmenopausal women.*

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### **A selective serotonin receptor agonist for weight loss and management of menopausal vasomotor symptoms in overweight midlife women: a pilot study**

Ekta Kapoor, MBBS, FACP, Stephanie Faubion, MD, Ryan T. Hurt, MD, PhD,  
Karen Fischer, MS, Darrell Schroeder, MS, Shawn Fokken, CCRP, and Ivana T. Croghan, PhD

*In addition to its weight loss-inducing effect, 5-HT<sub>2C</sub> receptor modulation may have an additional beneficial effect on vasomotor symptoms (VMS) in midlife women. A treatment option that targets both weight and VMS in midlife women is attractive.*

OPEN

1236

### **TX-001HR is associated with a clinically meaningful effect on severity of moderate to severe vasomotor symptoms in the REPLENISH trial**

Ginger D. Constantine, MD, James A. Simon, MD, Andrew M. Kaunitz, MD,  
James H. Pickar, MD, Dennis A. Revicki, PhD, Shelli Graham, PhD, Brian Bernick, MD,  
and Sebastian Mirkin, MD

*In conjunction with previously demonstrated clinically meaningful vasomotor symptoms (VMS) frequency improvements, these data support oral E2/P4 1/100 and 0.5/100 for postmenopausal women with a uterus seeking treatment for moderate to severe VMS.*

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### **Maternal age at last birth and leukocyte telomere length in a nationally representative population of perimenopausal and postmenopausal women**

Chase D. Latour, BA, Kelli O'Connell, MSPH, Megan E. Romano, PhD, MPH,  
Elizabeth D. Kantor, PhD, MPH, and Mengmeng Du, ScD

*Later maternal age was associated with longer telomere length in a nationally representative population of women. These data provide new insight into the biological relationship between reproductive history and long-term health.*

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**Association of phthalate exposure and endogenous hormones with self-reported sleep disruptions: results from the Midlife Women's Health Study**

Katherine M. Hatcher, MS, Rebecca L. Smith, DVM, PhD, Catheryne Chiang, PhD, Zhong Li, PhD, Jodi A. Flaws, PhD, and Megan M. Mahoney, PhD

*This study supports previous literature that hormones beyond follicle-stimulating hormone and estradiol are associated with sleep quality in menopause. Further, this study is among the first to show that phthalate exposure is associated with sleep disruptions in midlife women.*

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**The severity of vasomotor symptoms and number of menopausal symptoms in postmenopausal women and select clinical health outcomes in the Women's Health Initiative Calcium and Vitamin D randomized clinical trial**

Matthew Nudy, MD, Xuezhi Jiang, MD, PhD, Aaron K. Aragaki, MS, JoAnn E. Manson, MD, DrPH, Aladdin H. Shadyab, PhD, MS, MPH, Andrew J. Foy, MD, Jonathan Buerger, MD, Anita M. Kelsey, MD, Erin S. LeBlanc, MD, MPH, Robert A. Wild, MD, MPH, PhD, Jean Wactawski-Wende, PhD, Marcia L. Stefanick, PhD, John A. Robbins, MD, and Peter F. Schnatz, DO, FACOG, FACP, NCMP

*The severity of vasomotor symptoms was not associated with any clinical health outcome. However, having two or more moderate or severe menopausal symptoms was associated with an increased risk for cardiovascular disease and stroke events among postmenopausal women.*

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**The prevalence of hypoactive sexual desire disorder in Australian and Iranian women at midlife**

Ensieh Fooladi, PhD, Rakibul M. Islam, MPH, PhD, Robin J. Bell, MBBS, PhD, Penelope J. Robinson, Biostatistics, Maryam Masoumi, Mid, and Susan R. Davis, MBBS, PhD

*This study provides new information on the differences between married Australian and Iranian women in midlife in terms of sexual desire, sexually-related personal distress and epidemiologically estimated hypoactive sexual desire disorder. It also highlights the potential contributions of biopsychosocial and cultural factors in sexual function and raises a number of questions to be addressed in future studies.*

1281

**The effect of Fennel seed powder on estradiol levels, menopausal symptoms, and sexual desire in postmenopausal women**

Parvin Ghaffari, MD, Maryam Hosseininik, MSc, Ardashir Afrasiabifar, PhD, Hossein Sadeghi, PhD, Amar Hosseininik, MSc, Seyedeh Marzieh Tabatabaei, MD, and Nazafarin Hosseini, PhD

*The results of the present study indicated that the daily use of Fennel seed significantly improved menopausal symptoms in postmenopausal women over an 8 week period. Its effect on estrogen levels and sexual desire, however, was not significant.*

1287

**Association of cytochrome P450 1B1 gene polymorphisms and environmental biomarkers with hypertension in Slovak midlife women**

Darina Falbová, PhD, Lenka Vorobel'ová, PhD, Veronika Candráková Čerňanová, PhD, Radoslav Beňuš, PhD, Ladislava Wsóllová, PhD, and Daniela Siváková, CSc

*This study indicated that the CYP1B1 Leu432Val polymorphism may be associated with hypertension in Slovak midlife women, while Val allele carriers are more likely to have hypertension.*

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**Improving the identification of genitourinary syndrome of menopause through the utilization of the Day-to-Day Impact of Vaginal Aging questionnaire**

Jennie Mastroianni, DNP, Julie A. Thompson, PhD, Jan L. Shifren, MD, Andrea L. Zuckerman, MD, and Katherine Pereira, DNP

*The findings of this quality improvement project support the use of the DIVA questionnaire as an effective screening tool in increasing the identification of genitourinary syndrome of menopause (GSM), particularly for postmenopausal women or midlife patients presenting for a wellness visit when GSM cases would otherwise be missed.*

1302

**lncRNA HEIH accelerates cell proliferation and inhibits cell senescence by targeting miR-3619-5p/CTTNBP2 axis in ovarian cancer**

Lihui Si, MD, Jun Chen, MD, Shuli Yang, MD, Ziwei Liu, BM, Yuying Chen, BM, Minhua Peng, BM, and Yan Jia, MD

*This study revealed that lncRNA HEIH accelerated cell proliferation, migration, and invasion, while inhibited cell senescence in ovarian cancer via targeting the miR-3619-5p/CTTNBP2 axis. These findings may be valuable for finding new therapeutic targets to improve ovarian cancer treatment.*

1315

**The association of depressive symptoms to sleep-related symptoms during menopausal transition: racial/ethnic differences**

Eun-Ok Im, PhD, MPH, FAAN, You Lee Yang, PhD, RN, Jianghong Liu, PhD, RN, FAAN, and Wonshik Chee, PhD

*There were three prominent patterns of findings from the analyses first in Asian women, second in African American women, and third in postmenopausal women as a group.*

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**Brief Report**

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**Perimenopausal vasomotor symptoms and the cortisol awakening response**

Tianna Sauer, BSc, Laurie Sykes Tottenham, PhD, Ashley Ethier, MA, and Jennifer L. Gordon, PhD

*This longitudinal study found that perimenopausal women who report more severe vasomotor symptoms, on average, display a significantly blunted cortisol awakening response. However, within a given woman, weekly changes in vasomotor symptoms are not associated with weekly changes in the cortisol awakening response.*

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**Clinical Corner**

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**NAMS Practice Pearl**

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**The safety of oral versus transdermal estrogen**

Denise Black, MD, FRCSC

*The two most common routes of systemic estrogen administration are oral and transdermal. Assuming that equivalent dosing is used, they are both efficacious for relief of menopause symptoms and preservation of bone health. However, there are important differences with respect to their metabolism.*

**Invited Review**

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**It's not *that* mesh, is it? What providers should know about the transvaginal mesh controversy**

Patricia L. Hudson, MD, Samantha P. DeAndrade, MD, MPH, and Milena M. Weinstein, MD

*This review seeks to educate women's health providers on the historical background and various uses of the different types of mesh in gynecologic surgery.*

**Review Article**

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**Expression of androgen receptors in the structures of vulvovaginal tissue**

Santiago Palacios, MD

*Androgens and estrogens play a major role in the maintenance of vaginal physiology.*

*Better knowledge of the role of androgens and their receptors in vulvovaginal tissue would make it possible to discern their effects on female genitalia and help us to understand new therapeutic strategies.*

**Letter to the Editor**

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