



# Menopause

The Journal of The North American Menopause Society

VOLUME 28, ISSUE 12 2021

**SDC**

Supplemental Digital Content is available.

**OPEN**

Open Access article.

## CONTENTS

---

### Editorials

---

1325

**Chrisandra L. Shufelt, MD, MS, NCMP, FACP,  
2021-2022 NAMS President**

1327

**Getting a grip on older women's health**

Nanette Santoro, MD

1328

**Lipid equilibrating actions of syringic acid following lost ovarian function**

James K. Pru, PhD

### Original Studies

---

**SDC**

1330

**Hand grip strength and health-related quality of life in postmenopausal women: a national population-based study**

Yun Soo Hong, MD, MHS, and Hoon Kim, MD, PhD, NCMP

*Higher hand grip strength was associated with a lower prevalence of moderate/severe problems in each dimension of the European Quality of Life Questionnaire - Five Dimensions in postmenopausal women. These associations were more apparent in individuals who were older, had higher BMI, or had a chronic disease.*

1340

**Dietary syringic acid reduces fat mass in an ovariectomy-induced mouse model of obesity**

Teruyoshi Tanaka, PhD, Kazuko Iwamoto, PhD, Maki Wada, BD, Erika Yano, BD, Toshiyuki Suzuki, PhD, Nobuhisa Kawaguchi, MS, Norifumi Shirasaka, PhD, Tatsuya Moriyama, PhD, and Yoshimi Homma, PhD

*This study demonstrated that dietary Syringic acid (SA) decreases fat mass without affecting the uterus or the weights of other major organs in ovariectomized mice. Therefore, SA may be suitable for use in the prevention of postmenopausal obesity and diabetes.*

(continued)

1351

**Prevalence of pre-sarcopenia among postmenopausal women younger than 65 years**

Nalina Orprayoon, MD, Peerapraut Wainipitapong, MD, Jirapa Champaiboon, MD, Lalita Wattanachanya, MD, Unnop Jaisamrarn, MD, MHS, and Sukanya Chaikittisilpa, MD, MSc  
*Nearly 12% of Thai middle-aged postmenopausal women were pre-sarcopenic. Early detection of symptoms of pre-sarcopenia and maintenance of a healthy body mass index may reduce the burden of this condition for middle-aged and older women.*

1358

**Age at menopause among rural and urban women in the state of Campeche, Mexico**

Lynnette Leidy Sievert, PhD, Laura Huicochea-Gómez, PhD, Diana Cahuich-Campos, PhD, Brian W. Whitcomb, PhD, and Daniel E. Brown, PhD  
*The early mean recalled age at menopause in southern Hopelchén was consistent with previous studies in the Yucatán peninsula. Demographic and reproductive factors were more important than ethnicity in explaining variation in age at menopause.*

1369

**Self-care agency and associated factors in postmenopausal women**

Yasmin Bastos-Silva, PhT, Luiza Borges Aguiar, PhT, PhD, Poliana Pacello, MD, PhT, Luiz Francisco Baccaro, MD, PhD, Adriana Orcesi Pedro, MD, PhD, and Lúcia Costa-Paiva, MD, PhD  
*This study observed that the self-care management of postmenopausal women was satisfactory and was associated with lifestyle, self-perceived health, and knowledge about vitamin D.*

OPEN

SDC

1374

**“It just makes me feel a little less alone”: a qualitative exploration of the podcast**

**Menopause: Unmuted on women’s perceptions of menopause**

Amy L. Edwards, MSc, Philippa A. Shaw, MSc, Candida C. Halton, MSc, Stacy C. Bailey, PhD, MPH, Michael S. Wolf, PhD, MPH, Emma N. Andrews, PharmD, and Tina Cartwright, PhD  
*This in-depth qualitative study demonstrated that listening to a menopause podcast series helped women to learn about the menopause experience, have a greater sense of belonging to a community of women, and feel empowered to make changes in their own lives. Sharing women’s stories via podcasts thus has potential as an accessible and impactful medium to educate women and reduce the widespread stigma associated with menopause.*

SDC

1385

**Mind the gap: primary care physicians and gynecologists’ knowledge about menopause and their attitudes to hormone therapy use in Jamaica**

Giselle M. Harrison, DM, FACOG, Natalie N. Medley, DM, FACOG, Kamali N. Carroll, PhD, Donnette A. Simms-Stewart, DM, FACOG, Shaun H. Wynter, DM, FACOG, Horace M. Fletcher, DM, FACOG, and Carole A. Rattray, DM, FACOG  
*This study highlights the gaps in knowledge and practices and a need for carefully designed curricula to provide individualized, risk-mitigated training in menopause healthcare.*

OPEN

SDC

1391

**Efficacy of black rice extract on obesity in obese postmenopausal women: a 12-week randomized, double-blind, placebo-controlled preliminary clinical trial**

Ah Jin Jung, MSc, Anshul Sharma, PhD, Sung-Hyen Lee, PhD, Sung-Joon Lee, PhD, Jung-Hwan Kim, MD, and Hae-Jeung Lee, PhD  
*Black rice extract supplementation for 12 weeks appears to be effective in reducing fat accumulation in postmenopausal women.*

1400

**Effects of heavy metals on hypertension during menopause: a Korean community-based cross-sectional study**

Hai Duc Nguyen, MD, Hojin Oh, PharmD, and Min-Sun Kim, PhD

*Interactions were found between serum heavy metal levels and their tertiles in pre- and post-menopausal women with hypertension.*

**SDC**

1410

**Natural menopausal age and cardiovascular disease risk factors in older Chinese women: Guangzhou Biobank Cohort Study**

Huimin Su, MB, Chaoqiang Jiang, MD, Weisen Zhang, PhD, Feng Zhu, PhD, Yali Jin, MPH, Karkeung Cheng, PhD, Taihing Lam, MD, and Lin Xu, PhD

*Both early and late natural menopausal age were associated with a higher cardiovascular disease risk, and the associations were stronger in those with lower parity.*

**SDC**

1418

**Identifying the different subtypes in menopausal symptoms among middle-aged women in China: a latent class analysis**

Di Zhao, MD, Gaorong Lv, MD, Yunxue Zhang, MM, Zihui Xie, MM, Qing Wang, MM, Miao Zhou, MM, and Ping Li, PhD

*A person-centered approach for middle-aged women could address the unmet need to understand the heterogeneity of menopausal symptoms. Subtyping facilitates the identification of the potential causes of menopausal symptoms and the development of personalized interventions.*

---

**Review Article**

**SDC**

1428

**Age at menopause in women living with HIV: a systematic review**

Clara E. Van Ommen, MD, Elizabeth M. King, MD, and Melanie C. M. Murray, MD, PhD

*This systematic review identified that women living with HIV may have a slightly earlier menopause transition compared to the general population and a high prevalence of premature ovarian insufficiency and early menopause. Further research is needed to address low to moderate study quality and evaluate what role prolonged amenorrhea may have in influencing these findings.*

---

**Acknowledgment of Reviewers**

1437

---

**Abstracts**

1438

**2021 Annual Meeting of The North American Menopause Society  
September 22 – 25, 2021, Washington, DC**

1477

**Abstract Author Index**

**Index**

---

**e1**

**Author Index**

**e8**

**Subject Index**

---

Wolters Kluwer Health, Inc., and The North American Menopause Society cannot be held responsible for errors or for any consequences arising from the use of the information contained in this journal. All advertising material published in this journal is expected to conform to regulatory and medical standards. The appearance of advertising in this publication does not constitute a guarantee or endorsement by The North American Menopause Society or Wolters Kluwer Health, Inc., of the quality or value of such a product or service or any claims made by its marketer.

Permissions and photocopying: For permission and/or rights to use content for which the copyright holder is Wolters Kluwer or the society we have partnered with the Copyright Clearance Center to provide permissions for our products through their RightsLink service, please go to the journal's website and after clicking on the relevant article, click on the "Get Content & Permissions" link under the "Article Tools" box that appears on the right side of the page. For questions about the Rightslink service, e-mail [customer@copyright.com](mailto:customer@copyright.com) or call 877-622-5543 (U.S. Only) or 978-777-9929. Permissions FAQs and information on author's permission requests are available at <https://shop.lww.com/journal-permission>. For additional permission inquiries, please contact [Permissions@LWW.com](mailto:Permissions@LWW.com).

For translation rights requests, contact [TranslationRights@wolterskluwer.com](mailto:TranslationRights@wolterskluwer.com). For license to republish and distribute requests, contact [HealthLicensing@wolterskluwer.com](mailto:HealthLicensing@wolterskluwer.com). For special projects and reprints (U.S./Canada), contact Alan Moore at [Alan.Moore@wolterskluwer.com](mailto:Alan.Moore@wolterskluwer.com) or [reprintsolutions@wolterskluwer.com](mailto:reprintsolutions@wolterskluwer.com). For special projects and reprints (non-U.S./Canada), contact Avia Potashnik at [Avia.Potashnik@wolterskluwer.com](mailto:Avia.Potashnik@wolterskluwer.com) or [International-Reprints@wolterskluwer.com](mailto:International-Reprints@wolterskluwer.com).

*Menopause: The Journal of The North American Menopause Society* is a registered trademark of The North American Menopause Society.

***Menopause: The Journal of The North American Menopause Society*** (ISSN 1072-3714) is published monthly online-only by Wolters Kluwer Health, Inc. **Annual subscription rate:** \$663.

Copyright © 2021 by The North American Menopause Society. All rights reserved.