



**Processed by Minitex on:** 1/25/2022 9:24:53 AM

This material comes to you from the University of Minnesota collection or another participating library of the Minitex Library Information Network.

Patrons: please contact your library for help accessing this document.

Library staff: for issues or assistance with this document, please email: [mtx-edel@umn.edu](mailto:mtx-edel@umn.edu) and provide the following information:

- **Article ID:** HCO 24389410
- Patron email address

---

Title: Obstetrics & Gynecology

Author: American College of Obstetricians and Gynecologists.

ArticleTitle: Prospective Evaluation of Maternal Sleep Position Through 30 Weeks of Gestation and Adverse Pregnancy Outcomes

ArticleAuthor: McCowan, Lesley M.

Vol: 135 No: 1 Date: Jan 2020 Pages: 218

Publisher: New York : Elsevier 1953 -

Copyright: CCL

---

## NOTICE CONCERNING COPYRIGHT RESTRICTIONS:

The copyright law of the United States [[Title 17, United StatesCode](#)] governs the making of photocopies or other reproductions of copyrighted materials.

Under certain conditions specified in the law, libraries and archives are authorized to furnish a photocopy or other reproduction. One of these specific conditions is that the photocopy is not to be "used for any purpose other than private study, scholarship, or research." If a user makes a request for, or later uses, a photocopy or reproduction for purposes in excess of "fair use," that user may be liable for copyright infringement.

This institution reserves the right to refuse to accept a copying order if, in its judgment, fulfillment of that order would involve violation of copyright law.

compliance compared with intermittent aspirin use.

We agree that the question posed by Dr. Cuckle is an important one. It not only influences how we think about preeclampsia prevention strategies but additionally informs how we can understand behavior and medication use in pregnancy.

**Financial Disclosure:** *The authors did not report any potential conflicts of interest.*

**Divya Mallampati, MD MPH**  
Department of Obstetrics  
and Gynecology,  
University of North  
Carolina at Chapel Hill,  
Chapel Hill, North Carolina

**Erika F. Werner, MD, MS**  
Department of Obstetrics  
and Gynecology,  
Warren Alpert Medical School of  
Brown University,  
Providence, Rhode Island

## REFERENCES

1. Mallampati D, Grobman W, Rouse DJ, Werner EF. Strategies for prescribing aspirin to prevent preeclampsia: a cost-effectiveness analysis. *Obstet Gynecol* 2019;134:537–44.
2. Abheiden CN, van Reuler AV, Fuijkschot WW, de Vries JI, Thijs A, de Boer MA. Aspirin adherence during high-risk pregnancies, a questionnaire study. *Pregnancy Hypertens* 2016;6:350–5.
3. Mone F, Mulcahy C, McParland P, Breathnach F, Downey P, McCormack D, et al. Trial of feasibility and acceptability of routine low-dose aspirin versus Early Screening Test indicated aspirin for pre-eclampsia prevention (TEST study): a multicentre randomised controlled trial. *BMJ Open* 2018;8:e022056.

## Prospective Evaluation of Maternal Sleep Position Through 30 Weeks of Gestation and Adverse Pregnancy Outcomes

The Nulliparous Pregnancy Outcomes Study: Monitoring Mothers-to-Be (nu-MoM2b) study by Silver et al in the October 2019 issue<sup>1</sup> concludes that nonleft and supine sleep positions in midpregnancy are not associated with composite adverse outcome, including stillbirth. This is not surprising, because

late-pregnancy changes in sleep position have not yet occurred and mid-pregnancy position has fewer effects on uterine blood flow. Thus, Silver et al<sup>1</sup> test a different hypothesis than do studies reporting associations between late pregnancy sleep position and stillbirth. Although nuMoM2b is a large study, there were few stillbirths: 18 at 24 weeks of gestation or less and 10 at more than 37 weeks of gestation. The NuMoM2b findings contrast with our individual participant data meta-analysis comprising five international case-control studies (851 stillbirths at 28 weeks of gestation or more and 2,251 controls), which demonstrated a 2.6-fold increase in stillbirth in women who reported they went to sleep supine, after adjustment for confounders.<sup>2</sup> Silver et al speculate that case-control studies are limited by recall bias; although time between interview and stillbirth may influence recall accuracy, this would not be systematically biased toward supine sleep position. There are no data to support the assertion that receiving advice on sleep position is associated with maternal anxiety; in fact, there is evidence to the contrary.<sup>3</sup> Public awareness campaigns,<sup>4,5</sup> developed with input from parents, that recommend pregnant women settle to sleep on either side from 28 weeks of gestation<sup>2</sup> should not change as a result of this publication.

**Financial Disclosure:** *The authors did not report any potential conflicts of interest.*

**Lesley M. E. McCowan, FRANZCOG**  
**Robin S. Cronin, MMid**  
Department of Obstetrics and  
Gynaecology, the University of  
Auckland, Auckland, New Zealand

**Adrienne Gordon, PhD**  
Discipline of Obstetrics, Gynaecology  
and Neonatology, the University of  
Sydney, Sydney, Australia

**Louise O'Brien, PhD**  
Division of Sleep Medicine,  
Department of Neurology and  
Department of Obstetrics &  
Gynecology, University of Michigan,  
Ann Arbor, Michigan

**Alexander E. P. Heazell, PhD**  
Division of Developmental Biology &  
Medicine, University of Manchester,  
Manchester, United Kingdom behalf  
of the CRIBBS Collaboration

## REFERENCES

1. Silver RM, Hunter S, Reddy UM, Facco F, Gibbens KJ, Grobman WA, et al. Prospective evaluation of maternal sleep position through 30 weeks of gestation and adverse pregnancy outcomes. *Obstet Gynecol* 2019;134:667–76.
2. Cronin RS, Li M, Thompson JMD, Gordon A, Raynes-Greenow CH, Heazell AEP, et al. An individual participant data meta-analysis of maternal going-to-sleep position, interactions with fetal vulnerability, and the risk of late stillbirth. *EClinicalMedicine* 2019;10:49–57.
3. Cronin RS, Chelimo C, Mitchell EA, Okesene-Gafa K, Thompson JMD, Taylor RS, et al. Survey of maternal sleep practices in late pregnancy in a multi-ethnic sample in South Auckland, New Zealand. *BMC Pregnancy Childb* 2017;17:190.
4. Cure Kids. Sleep on side when baby's inside: from 28 weeks of pregnancy. Available at: <https://www.sleeponside.org.nz/>. Retrieved October 29, 2019.
5. Tommy's. Sleep on side—a pregnancy campaign. Available at: <https://www.tommys.org/pregnancy-information/sleep-side-pregnancy-campaign>. Retrieved October 29, 2019.

## In Reply:

We thank McCowan et al for their comments regarding our article in the October 2019 issue,<sup>1</sup> and we agree with them. Our study examined the relationship between maternal sleep position and adverse pregnancy outcomes through 30 weeks of gestation. Accordingly, data are not applicable to the last trimester of pregnancy. Also, our study had few stillbirths, as would be anticipated in a complex longitudinal prospective study. We were careful to state that our data are not applicable to the last trimester of pregnancy, and we avoided making clinical recommendations regarding this time period. Nonetheless, we hope that our findings will be reassuring to women during the first two trimesters. Previous dogma supported lateral sleep starting after 20 weeks gestation or after the first trimester, which our findings refute.

Importantly, we also hope that our findings will spur further research about sleep position and pregnancy. Our statement that, “case-control studies may be prone to recall bias” was not intended to invalidate the

