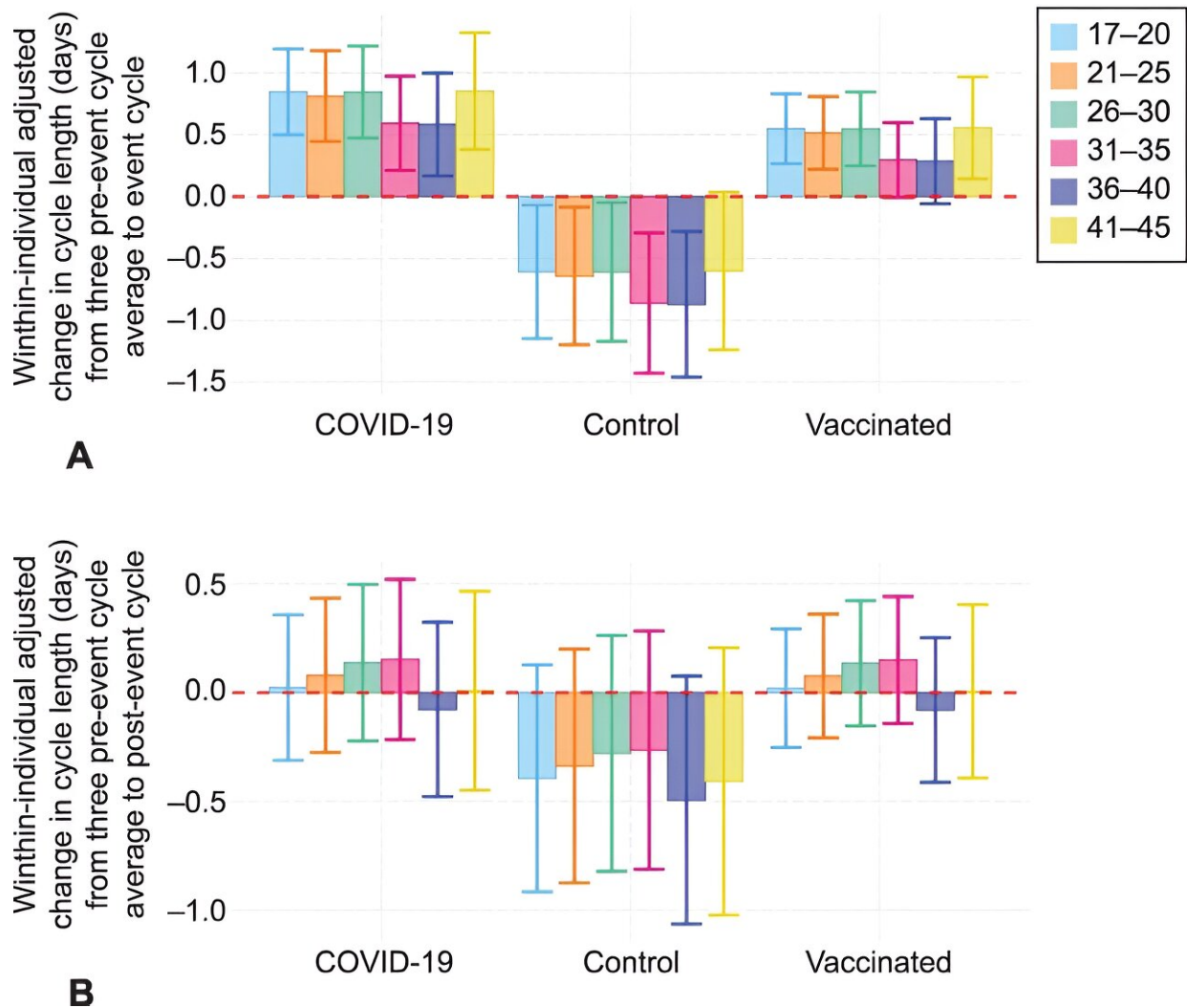


# Global study finds COVID-19 disease may cause change in menstrual cycle length

August 11 2023, by Nicole Rideout



Adjusted within-individual change in cycle length from the average length of three cycles pre-event and the event cycle (A) or the post-event cycle (B) across groups and age groups. Credit: *Obstetrics & Gynecology* (2023). DOI:

10.1097/AOG.00000000000005343

A new international study finds that individuals with COVID-19 disease may experience small, temporary changes in menstrual cycle length. Researchers emphasize changes are minor and typically return to normal in next menstrual cycle.

The study, published today in the journal *Obstetrics & Gynecology*, was an international collaborative effort led in part by Oregon Health & Science University reproductive health services researcher Blair Darney, Ph.D., M.P.H.; physician-scientist Alison Edelman, M.D., M.P.H.; and Alexandra Alvergne, Ph.D., of the University of Montpellier.

Their findings build on [prior work](#) from the same research team that first identified an association between COVID-19 vaccines and [menstrual cycle](#) changes. However, existing literature on the effects of COVID-19 disease itself on the menstrual cycle is limited. This study aimed to identify these effects, as well compare any changes to those seen with COVID-19 vaccination.

"As the prevalence of COVID-19 has increased, the public has reported a range of menstrual cycle changes, including longer length of cycle. Knowing this was a widespread concern, our team—along with other reproductive health experts across the globe—made this research a top priority," said Edelman, a professor of obstetrics and gynecology in the OHSU School of Medicine.

"Menstrual health is significantly understudied and underrepresented in research and medicine. This work is important and necessary to provide answers that can reassure individuals who are experiencing menstrual changes following a COVID-19 infection."

In the [retrospective cohort study](#), researchers analyzed menstrual cycle data from more than 6,000 individuals in 110 countries using Clue, a menstrual and reproductive health platform.

"We are proud to contribute to such important research on the effects of COVID-19 on the menstrual cycle and to work closely with world-class researchers at Oregon Health & Science University and the University of Montpellier," said Amanda Shea, Ph.D., head of science at Clue.

"This research underlines the power of Clue's de-identified user data and its impact in advancing research into [menstrual cycles](#) and reproductive health; benefitting society via a more accurate understanding of [reproductive health](#)."

Among unvaccinated participants reporting COVID-19 illness, researchers found, on average, a 1.45-day increase in menstrual cycle length compared with participants' previous cycle length average. These increases were consistent with changes reported among the cohort who had received a COVID-19 vaccination.

Researchers emphasize that in both cohorts, changes resolved in the first cycle after vaccination or illness. Additionally, they note that the immune and reproductive systems are known to interact with each other, so while these findings aren't surprising, they should validate the public's experiences and provide reassurance that if changes in flow occur during or after COVID-19 infection, they are likely to be small and temporary.

"Changes to your menstrual cycle can be concerning and even frightening," said Darney, an associate professor of obstetrics and gynecology in the OHSU School of Medicine. "We want this research to reassure individuals that on a population level, these changes are not typically a cause for concern."

Cycle changes are likely due to temporary, disease-related activation of immune response, but because individuals naturally experience variations in menstrual cycle duration and bleeding patterns, researchers say that it is challenging to isolate COVID-19 as a sole cause. The research team also notes that the study was not focused on individuals known to be experiencing long COVID-19. The physician-scientists also advise that individuals who notice prolonged changes in menstruation should seek guidance from their clinician.

Looking forward, researchers hope to learn more about the biological mechanism of these changes and will continue to leverage data from cycle tracking apps to investigate other reported variations in menstruation following vaccination, including missed cycles, unexpected vaginal bleeding and pain.

**More information:** Alexandra Alvergne et al, Associations Among Menstrual Cycle Length, Coronavirus Disease 2019 (COVID-19), and Vaccination, *Obstetrics & Gynecology* (2023). [DOI: 10.1097/AOG.0000000000005343](https://doi.org/10.1097/AOG.0000000000005343)

Provided by Oregon Health & Science University

Citation: Global study finds COVID-19 disease may cause change in menstrual cycle length (2023, August 11) retrieved 2 May 2024 from <https://medicalxpress.com/news/2023-08-global-covid-disease-menstrual-length.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.