

Hor**monology**®

Stress and the Hormone Connection



By Gabrielle Lichterman, founder of **Hormonology**®, creator of the **Hormone Horoscope**® Apps and author of **28 Days: What Your Cycle Reveals about Your Love Life, Moods and Potential**. Learn more at MyHormonology.com.



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Stress. Just looking at that word is enough to make you involuntarily hold your breath, right?

That's probably because you know quite a bit about stress: It's harmful to your physical health and can trigger depression. Yet, it's nearly impossible to avoid in our hectic lives filled with multiple responsibilities and unexpected snafus that seem to wait for us around every corner.



But, here's something you may not have known: Stress is tied to your **hormones**.

Whether you're **premenopausal** (meaning you have monthly cycles), **perimenopausal** (are in the years leading up to the end of your cycles) or **menopausal** (are transitioning into the phase of no cycles), how you experience stress can be impacted by your body's level of estrogen.

As a participant of **The Well-Nourished Goddess: The Art of Sacred Self-Care** summit, you likely appreciate how important it is to rein in stress—but, perhaps, you haven't had success with techniques you've tried in the past and don't have time to look around for ones that work.

Well, when you know how your hormones impact stress in your monthly cycle or your hormone phase of life, it helps you pinpoint the most effective stress relievers for you.

The result? You can usher in soothing calm in less time!

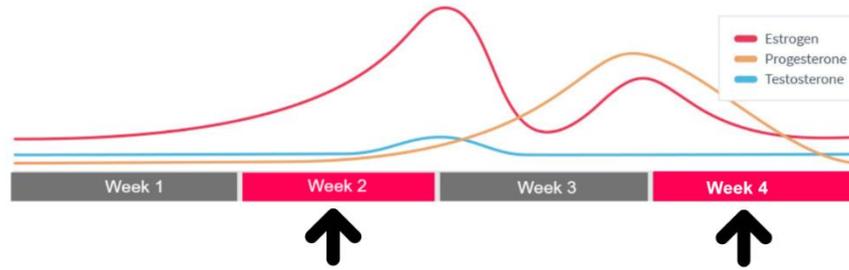
Are you ready to ease the stress that's been holding you back? Here's how knowing more about the hormone/stress connection can help....



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Stress During Your Monthly Cycle

Notice you stress out more on some days than others, but don't know why? Hormone changes can make you prone to more intense or frequent stress responses during certain points in your monthly menstrual cycle. Here are the phases of your cycle when you're more vulnerable to stress, plus proven tips to help you beat it:



WEEK 2 (week before & including ovulation)

Stress can be more intense and longer-lasting on these cycle days due to high estrogen amping up arousal in the brain. While this extra mental energy can lead to faster thinking and easier brainstorming, one negative side effect is an increased stress response.

Week 2 Stress-Busters

- 🧠 **Train your brain:** Over time, regularly meditating, doing yoga or exercising keeps stress from spiking by creating changes in the brain that make it less likely to overreact.
- 🧠 **Try natural calmers:** For immediate stress relief, sip chamomile tea, which has mildly relaxing compounds. Chew something crunchy for 10 minutes; activating jaw muscles sends a message to the brain to rein in stress. Or talk with a pal; this triggers a rise in calming progesterone.

WEEK 4 (final six days of your cycle)

You can experience more frequent stress on premenstrual days due to plunging estrogen increasing worry and lowering self-confidence. This occurs because levels of mood-managing brain chemicals (such as serotonin) can get disrupted when estrogen falls.

Week 4 Stress-Busters

- 🧠 **Grab a pen:** Jotting down your fears, past hurts, reasons to be grateful or your best strengths are all proven ways to dispel stress.
- 🧠 **Get better sleep:** Wearing an eye mask, putting in ear plugs or doing anything else to improve pre-period sleep boosts hope and self-worth, making you more resilient.
- 🧠 **Cut yourself slack:** Research shows that increasing self-compassion decreases stress.

Stress During Perimenopause and Menopause

Are you past regular monthly cycles and are now **perimenopausal** or **menopausal**?

Research shows that stress impacts you differently because of your hormones.

How? As you approach menopause and transition through it, one key form of estrogen—estradiol—no longer follows its monthly cyclical pattern and instead fluctuates in an unpredictable way. These hormone fluctuations can make you more sensitive to certain types of major stress triggers, including work burnout and life events that are often unavoidable, such as the death of a loved one, divorce or job loss.

The good news? There are study-proven techniques to reduce stress during this phase of your life.

And, feeling more relaxed isn't the only benefit of following them: Women with lower stress also have fewer symptoms related to menopause, reveals research in the *Journal of Midwifery and Women's Health*. That's because stress can trigger a cascade of changes in the brain and body that lead to night sweats, elevated heart rate, rumination or depression while taming stress helps keep these symptoms in check.

Perimenopausal and Menopausal Stress-Busters

 **Take a daily multivitamin with minerals:** Women transitioning through menopause felt more relaxed and happier within one hour of taking a multi, according to research from Swinburne University in Australia. Why? They're packed with nutrients that reduce stress and improve mood, including B vitamins, vitamin C, magnesium and zinc.

 **Grab your walking shoes:** Women who took the most brisk walks per week while transitioning through menopause scored lowest on scales measuring stress, anxiety and depression in a study in the journal *Medicine & Science in Sports & Exercise*. Aerobic workouts help boost levels of brain chemicals that manage stress and mood.

 **Practice meditation or yoga:** Not only are these proven methods for reducing stress, research shows they also improve sleep quality during these transitional years. That's key since lousy sleep (which is more common during perimenopause and menopause) raises stress while a good night's sleep tamps down tension.

About Gabrielle Lichterman and Hormonology®



Gabrielle Lichterman, founder of **Hormonology** and a longtime women's health journalist, is leading the growing movement among women to live in sync with their menstrual cycles and know more about all the ways their hormones impact their moods, health and behavior. This is a movement that began with her groundbreaking book, *28 Days: What Your Cycle Reveals about Your Love Life, Moods and Potential*, and her creation of **Hormonology**.

What is Hormonology?

Hormonology was invented by Gabrielle as a way to teach women and girls about the effects of their hormone cycles. **Hormonology** was launched in 2005 with Gabrielle's book, *28 Days: What Your Cycle Reveals about Your Love Life, Moods and Potential*. **Hormonology** now also includes a suite of useful tools, including the popular free Hormone Horoscope App, eBooks, Hormonology Guides and videos.

Gabrielle's mission

Gabrielle's mission is to share **Hormonology** with girls and women so they can understand the many natural—and predictable—changes within their monthly cycles.

She also seeks to strengthen relationships between cycling women and their male partners by educating men about the female hormone cycle.

Join the movement! Learn more about how you can help share hormone information with friends, family, co-workers, your students and others at MyHormonology.com/join-my-mission.



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HORMONOLOGY APPS

Learn more about how your hormones impact your moods, health and behavior at MyHormonology.com.

And download the popular **Hormone Horoscope App** to get a daily summary of what your hormones have in store for you every day!



Hormone Horoscope App “Lite”

This easy-to-use menstrual cycle tracker app delivers the daily Hormone Horoscope—a summary of what your mood, energy, romantic desire, shopping habits, health and more will be every day based on where you are in your monthly cycle! The “Lite” version of this app tracks your current cycle only. [Learn more.](#)

Available FREE at [Google Play](#) and the [App Store](#).



Hormone Horoscope App “Pro”

The “Pro” version of the Hormone Horoscope App goes into more detail about how your hormones will be impacting you every day and organizes the information in easy-to-reference categories (such as Mood, Energy, Romance and Money) so you can read the information you want in an instant. It also offers bonus features, including tracking future cycles and creating custom alerts. [Learn more.](#)

Available for \$1.99 at [Google Play](#) and the [App Store](#).

MORE HORMONOLOGY APPS

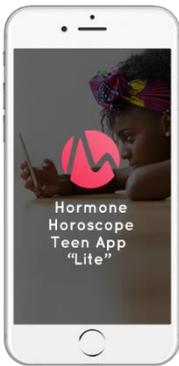
Have a male partner or teenage daughter? There are apps for them, too!



Female Forecaster App

The Female Forecaster App is written specifically for boyfriends and husbands of cycling women and gives them a forecast of what they can expect from your mood, libido, energy and more every day of the month. No more guessing—no more surprises! It takes just seconds to set up and is simple to use. [Learn more.](#)

Available for \$2.99 at [Google Play](#) and the [App Store](#).



Hormone Horoscope Teen App “Lite”

This menstrual cycle tracker app is specifically for girls 12 to 17 and delivers the daily Hormone Horoscope—a summary of what her mood, energy, crushes, shopping habits, health and more will be every day based on where she is in her monthly cycle! The “Lite” version of this app tracks her current cycle only. [Learn more.](#)

Available FREE at [Google Play](#) and the [App Store](#).



Hormone Horoscope Teen App “Pro”

The “Pro” version of the Hormone Horoscope Teen App that’s for girls 12 to 17 goes into more detail about how her hormones will be impacting her every day and organizes the information in easy-to-reference categories (such as Mood, Energy, Romance and Money) so she can read the information she wants in an instant. It also offers bonus features, including tracking future cycles and creating custom alerts. [Learn more.](#)

Available for \$1.99 at [Google Play](#) and the [App Store](#).

Want to learn more about the research?

Below is a selected collection of studies upon which this **Hormonology Guide** is based so you can discover more about the science behind it.

Stress and menstrual cycle

<http://www.sciencedirect.com/science/article/pii/S0306453013002989>

<http://www.sciencedirect.com/science/article/pii/S0272735811001309>

Talking and progesterone

<http://ns.umich.edu/new/releases/7181>

Exercise and stress

<http://www.jneurosci.org/content/33/18/7770>

Yoga and premenopausal stress

<https://www.ncbi.nlm.nih.gov/pubmed/24298457>

Meditation and stress

<https://www.ncbi.nlm.nih.gov/pubmed/23251943>

Chew crunchy food

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4450283/>

Self-compassion

<http://www.sciencedirect.com/science/article/pii/S0191886916311321>

Stress and sleep

<https://www.ncbi.nlm.nih.gov/pubmed/23055029>

Stress and exercise

<https://www.deepdyve.com/lp/elsevier/reduced-emotional-stress-reactivity-to-a-real-life-academic-ggB3iyWoAH?shortRental=true>

<http://www.sciencedirect.com/science/article/pii/S1469029215000357>

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Stress and writing

<http://psp.sagepub.com/content/41/5/726.abstract>

http://www.eurekalert.org/pub_releases/2015-04/sfpa-smc041315.php

<https://www.researchgate.net/publication/274317810> The Effects of Two Novel Gratitude and Mindfulness Interventions on Well-Being

<https://www.researchgate.net/publication/11785938> Expressive writing can increase working memory capacity

<http://www.apa.org/monitor/sep01/keepdiary.aspx>

Menopause and stress

<https://www.ncbi.nlm.nih.gov/pubmed/25082207>

<https://www.ncbi.nlm.nih.gov/pubmed/19167176>

<https://www.ncbi.nlm.nih.gov/pubmed/20630359>

http://journals.lww.com/menopausejournal/Citation/2016/03000/Estradiol_variability,_stressful_life_events_.and.7.aspx

Life stress and menopause

http://journals.lww.com/menopausejournal/Citation/2016/03000/Estradiol_variability,_stressful_life_events_.and.7.aspx

https://www.eurekalert.org/pub_releases/2015-11/tnam-ama110315.php

Less stress linked to fewer menopause symptoms

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3661682/>

Job stress and menopause

<https://www.ncbi.nlm.nih.gov/pubmed/25082207>

Physical activity, stress and menopause

[http://journals.lww.com/acsm-](http://journals.lww.com/acsm-msse/Fulltext/2008/01000/Effect_of_Physical_Activity_on_Menopausal_Symptoms.8.aspx)

[msse/Fulltext/2008/01000/Effect_of_Physical_Activity_on_Menopausal_Symptoms.8.aspx](http://journals.lww.com/acsm-msse/Fulltext/2008/01000/Effect_of_Physical_Activity_on_Menopausal_Symptoms.8.aspx)

https://www.eurekalert.org/pub_releases/2008-01/tu-wam121807.php

Multivitamin and menopause

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4408300/>

Sleep, yoga and menopause

<https://www.ncbi.nlm.nih.gov/pubmed/27707450>

<https://www.ncbi.nlm.nih.gov/pubmed/24045673>

Sleep, meditation and yoga

<https://www.ncbi.nlm.nih.gov/pubmed/23820599>

<https://www.ncbi.nlm.nih.gov/pubmed/23937432>

<https://www.ncbi.nlm.nih.gov/pubmed/21372745>

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