



# Hot Flashing While Letting Down

## Hot Flashing While Letting Down: Supporting Lactation During Perimenopause



**Laurel Wilson,**

**IBCLC, BSc, RLC, INHC, CLSP, CPPI**

### Presentation Info

#### Abstract:

With more parents than ever before delaying having children into their late 30s and early 40s, the reality is that most of them will be dealing with perimenopause while they are pregnant and lactating. Navigating the intricate balance of lactation while experiencing the hormonal fluctuations of perimenopause can be a daunting journey for many people. In this talk, we delve into the complexities of supporting those who are perimenopausal in the perinatal period. We will explore the fascinating interplay between hormonal changes and lactation, shedding light on how fluctuating estrogen and progesterone levels can impact milk production and composition. Understanding these dynamics is essential for providing effective support during this transitional period. We discuss the changes to the microbiome and estrobolome that can impact milk supply and both lifestyle and medical support that may be required to optimize the breastfeeding/chestfeeding relationship. Finally, we delve into strategies to maximize milk output amidst the challenges of perimenopause. From dietary considerations to lifestyle adjustments, we uncover practical approaches that can help parents maintain a healthy milk supply and meet the nutritional needs of their infants. By addressing hormonal changes, providing access to resources, and offering strategies to optimize milk output, this talk aims to increase the knowledge and tools needed to navigate the unique intersection of lactation and perimenopause with confidence and resilience.

#### Objectives

1. Identify 2 key changes in hormones during perimenopause that can impact lactation.
2. Define the estrobolome.
3. Identify 2 strategies to supporting optimal hormonal balance when lactating during perimenopause.

#### What is Perimenopause?

- "Around menopause"
- The transition from fertility to post-fertility.
- Average Age: 42, can start in late 30's
- Starts with lowered estradiol release

#### What is Menopause?

- Cessation of ovulation
- Begins when you have gone 12 months without menstruation
- Average Age: 52 Range 45-58

#### Common Symptoms:

- Cardiovascular/Vasomotor
- Cognitive
- Liver
- Metabolic, Muscle, Bone, Sexual Health

#### Hormones are our Communicators

- Promote emotional health
- Control fertility
- Receptors on every organ
- Depletion leads to inflammation
- Functional Medicine - Classified as the Communicator

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#### **MENOPAUSE EXPERIENCE IS CULTURAL AND BIO-INDIVIDUAL**

- Blend of culture, nutrition, exposures, genetics, and trauma

#### **Change in hormones**

- Key Hormones Involved
  - Estrogen
  - Progesterone
  - Follicle-stimulating hormone (FSH)
  - Luteinizing Hormone (LH)

#### **Three Estrogens (Hecate Goddess)**

- Estradiol (The Maiden)
- Estrinol (The Mother)
- Estrone (the Crone/Wise Woman)

#### **Estradiol (The Maiden)**

- Heart health and bone health
- Prominent in premenopausal people
- Estrogen produced during follicular development

#### **Estrinol E3 the Mother/Parent**

- Good for the skin and vaginal tissue
- Predominant in pregnant people
- Released by placenta
  - Prep uterus
  - Remodel brain
  - Promote ductal growth
  - Supports prolactin

#### **Estrone (the Crone)**

- Can cause a problem for breast cancer
- Predominant in postmenopausal people
- Can convert into other forms of estrogen if needed

#### **Effects of Estrogen**

- Heart - protection
- Liver - cholesterol production regulation
- Bones - strength and density
- Skin- supple, moist, collagen production
- Brain - body temperature, memory, libido
- Breast/Mammary Gland - growth and development
- Ovary/Uterus - maturation, prep for monthly cycle and pregnancy

#### **Estrogen Dominance**

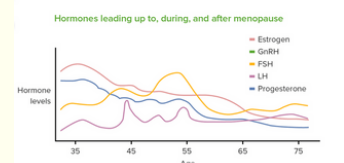
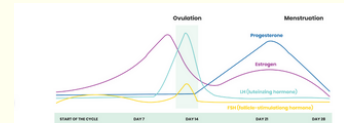
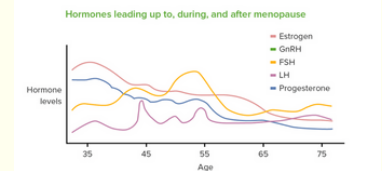
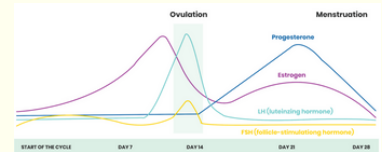
- The first things to diminish during perimenopause are progesterone and testosterone.

#### **Progesterone**

- Starts to decline in 30-40's
- Can have low progesterone/high estrogen

#### **Low Progesterone Symptoms**

- Heavy/Irregular Periods/Weight Gain/Anxiety/Depression
- Irritability/Insomnia/Adult Acne/Low Libido/Headaches
- Dry, crepey skin



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## Cortisol and Insulin

- Modulating to deal with declining estradiol levels

## What about Insulin Resistance?

- Often see combo issues: Unhealthy estrobolome and insulin resistance
- 70% of people with PCOS have insulin resistance
- Ursuline resistance means more insulin circulating
- Milk glands sensitive to insulin
- Can see low milk supply

## What is Insulin Resistance?

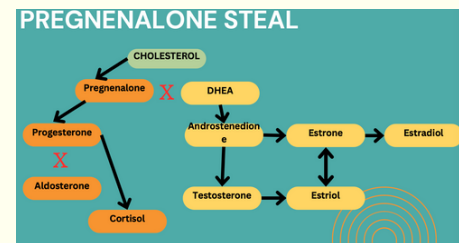
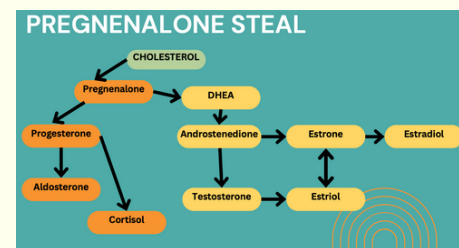
- Are you tired after meals?
- Wake up at 2 am, hungry
- Do you crave sugar
- Can't lose weight no matter what
- Thirsty all the time, and peeing often?

## Too Much Cortisol

- Stubborn belly fat
- Recurrent infections
- Low Libido
- Morning headaches
- Water-retention
- Insomnia
- High blood pressure
- 'Wired and tired'
- Sugar or caffeine cravings
- Hangry
- Difficulty staying focused
- Gastrointestinal problems

## Too Much Cortisol - Lifestyle Management

- Stress Management
  - Journaling
  - Breathing techniques
  - Somatics
  - Meditation
- Anti-inflammatory diet
- Focus on sleep
- Get sunshine in the morning!
- Elevate your oxytocin!



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### What is the Microbiome?

10 trillion cells belonging to thousands of species, weighing a combined 200 grams in each person *Human Microbiome Project Consortium Nature 486, 207-214; 2012*

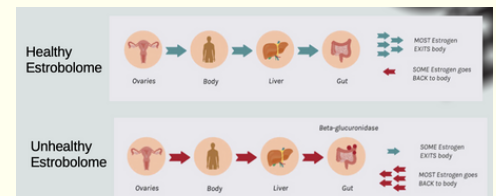
### The Estrobolome in the Microbiome?

- A grouping a gut microbes that regulate the metabolism of estrogen
  - Escherichia coli, Bacteroides spp., and Clostridium perfringens
  - Produce an enzyme: beta-glucuronidase

### Balances the Scales

- Turn inactive estrogen into active estrogen
- Creates homeostasis
- “Unboxed” estrogen can bind to receptors

### Estrogen's Path



### High Beta-Glucuronidase Associated With:

- PMS/Obesity/Endometriosis/Infertility/Metabolic Syndrome/Mood Disorder/Estrogen Related Cancers/Heart Disease
- Can lead to low milk supply

### Allergies in Baby?

- Consider gut dysbiosis in parent

### Cycle of Estrogen - Adrenal Glands

- Produce DHEA
- Coverts to estrogen
- Primary way to create estrogen post-fertility

### Cycle of Estrogen - Adipose Tissue

#### Estrogen and Pregnancy

- Helps uterus grow
- Maintains uterine lining
- Triggers organogenesis for baby

#### Estrogen/Progesterone (First Trimester)

- Ductal expansion, proliferation, elongation
- Decrease in adipose tissue
- Stimulates pituitary to elevate prolactin

#### Estrogen/Progesterone (Second Trimester)

- Milk production inhibited (estrogen and progesterone)
- Colostrum stimulated
- Stimulates pituitary to elevate prolactin

#### Prolactin (Second-Third Trimester)

- Promotes the growth of mammary alveoli
- Prolactin receptors down-regulated with progesterone

#### Estrogen/Progesterone (Third Trimester and Post Birth)

- Decrease in estrogen promotes milk production
- Allows for milk ejection
- Progesterone levels drop, which increases the number of prolactin receptors on the mammary alveolar cells

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### **Oxytocin (Last Trimester and Birth)**

- Stimulates uterine contractions
- Facilitates labor progression
- Significant surge of oxytocin happens during childbirth
- Ongoing pulses assist in delivering the placenta and preventing excessive bleeding
- Creating warmth in chest for skin-to-skin bonding with baby
- Preps for let-down

### **Estrogen and Lactation**

- Lowered estrogen promotes prolactin
- Continued ability for let down
- Prevents follicular development - reducing risk for energy constraint on body

### **Prolactin/Oxytocin and Postpartum**

- Prolactin activated breast alveolar epithelial cells
- Secretory activation
- Suckling elevates prolactin
- Oxytocin: facilitates letdown

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### Estrogen Creation

- Ovaries
- Adrenal Glands
- Adipose tissue
- Pregnancy-Placenta  
(Re-Uptake)

### Cycle of Estrogen - Ovaries

#### Menstrual cycle

Developing follicle makes estrogen to promote growth  
After release, progesterone balances estrogen

(Did you know that estrogen helps us feel empathy and respond to facial expression recognition during the menstrual cycle.)

(Did you know that estrogen makes our face more symmetrical during ovulation, thus increasing attraction.)

### Put on Your Thinking Cap

- As estrogens help to regulate glucose and lipid metabolism and bone formation, increased beta-glucuronidase activity has been associated with an increased risk of obesity and osteoporosis.
- One more thing to check if working with a person with obesity and low milk supply.

### Cycle of Estrogen - Adipose Tissue

- Acts as endocrine system manufacturing hormones
- Leptin, estrogen, resistin, and the cytokine TNF $\alpha$
- TNF $\alpha$  creates insulin resistance in the body

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### How is it Treated?

- DIM - diindolylmethane
  - Estrogen blocker
  - Converts estrogen into less harmful forms
  - Blocks aromatase - converts testosterone to estrogen
- Cruciferous Vegetables
  - IC3 - Indole-3-Carbinol precursor to DIM

### Impact of Low Estrogen in AFAB

- Irregular periods
- Hot flashes
- Osteoporosis
- Pain during sex
- Depression
- Increase in UTI
- Brain fog

### Testing One's Estrogen

- DUTCH Test
- Serum Estrogen Test
  - Wildly fluctuating
- See a Functional Medicine Practitioner
- Stool test

### The Triad of Hormonal and Lactation Health

- Sex hormones
- Adrenal Hormones
- Thyroid Hormones

(Make sure to get a full panel. If estrogen is off, other hormones may be, as well.)

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### Creating Positive Change in the Gut and Estrobolome

#### Your Gut and Mucous

##### What Wears down your mucosal layer?

- Bad bacteria
- Stress
- Cortisol
- Infections

##### Are you Downloading?

- Fecal matter left in the large intestine causes estroen to be available for upload?
- If you aren't stooling, bacteria runs amok, increases beta-glucuronidase, increases estrogen

##### Induced Causes

- Environmental Pollutants- Xenoestrogens
  - Mimic estrogen
  - Beauty products, pesticides, plastics, meat, cleaning products
- Exogenous Hormones- Triggers of high estrogen
  - Steropid meds
  - Birth control pills
  - Ampicillin
  - Phenothiazines
  - Tetracyclines

##### Other Influences that Promote High Estrogen

- Preservative
- Additives
- Phytoestrogens (endocrine disruptors)

Bisphenol A (BPA). Some food storage containers contain this chemical

Dioxins

Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)

Phthalates

Polychlorinated biphenyls (PCB)

Triclosan

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### Physical Causes

- Insulin Resistance
  - Increase in adipose tissue
  - More estrogen
- Poor Liver Function
  - Poor conversion of estrogen
- MTHFR Mutation
  - More vulnerable to elevated estrogen
  - Slower to detox estrogen

### Your Food

- What are you eating?
- How are you eating?
- What are you storing your food in?

### Your Diet

- Add Prebiotics
  - Green bananas
  - Jerusalem artichoke
  - Garlic and Onions
  - Jicama
- Bitters
  - Dandelion
  - Endive
  - Arugula
  -
- Fiber
  - Average 15g a day
- Eat your green vegetables
  - Brassicacea famile (broccoli, cabbage, kale, brussel sprouts, collard greens, cauliflower)

### Your Diet-Limit

- Dairy
- Red Meat
- Soy (2x week, organic, not necessarily bad!)

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#### **Reduce Xenoestrogen Burden**

- Glass not plastic
- BPS free only
- If possible, organic foods, meat without added hormones
- Wash hands after touching receipts
- Paraben-free cosmetics

*Think about it....How many products do you put on your body a day? Are they xenoestrogen-free?*

#### **Keep in Mind:**

- In cases where the low milk supply may seem a puzzle, investigating the estrobolome can be helpful!
- Get a full hormone panel to look at ALL of the hormones!

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## References

- Alex, A., Bhandary, E., & McGuire, K. P. (2020). Anatomy and Physiology of the Breast during Pregnancy and Lactation. *Diseases of the Breast during Pregnancy and Lactation*, 3-7.
- Asatryan, B., Rieder, M., Castiglione, A., & Odening, K. E. (2021). Arrhythmic risk during pregnancy and postpartum in patients with long QT syndrome. *Herzschrittmachertherapie+ Elektrophysiologie*, 32(2), 180-185.
- Arendt, L. M., & Kuperwasser, C. (2015). Form and function: how estrogen and progesterone regulate the mammary epithelial hierarchy. *Journal of mammary gland biology and neoplasia*, 20(1), 9-25.
- Awolade, P., Cele, N., Kerru, N., Gummidi, L., Oluwakemi, E., & Singh, P. (2020). Therapeutic significance of  $\beta$ -glucuronidase activity and its inhibitors: A review. *European journal of medicinal chemistry*, 187, 111921.
- Baker, J. M., Al-Nakkash, L., & Herbst-Kralovetz, M. M. (2017). Estrogen-gut microbiome axis: physiological and clinical implications. *Maturitas*, 103, 45-53.
- Barinova, V. V., Bushtyeva, I. O., Abovyan, A. A., Kuznetsova, N. B., Shatalov, A. E., & Botasheva, T. L. (2022). A clinical case of induced lactation in a biological mother in perimenopause in a surrogacy program of art. *Pediatrician (St. Petersburg)*, 13(5), 121-127.
- Bodai, B. I., & Nakata, T. E. (2020). Breast cancer: lifestyle, the human gut microbiota/microbiome, and survivorship. *The Permanente Journal*, 24.
- Carruba, G., Granata, O. M., Pala, V., Campisi, I., Agostara, B., Cusimano, R., ... & Traina, A. (2006). A traditional Mediterranean diet decreases endogenous estrogens in healthy postmenopausal women. *Nutrition and cancer*, 56(2), 253-259.
- Clement, A., Cornet, D. N., Alvarez, S., Brami, C., Clement, P., & Menezo, Y. (2018). Endometriosis pathogenesis: role played by the oxidative stress due to MTHFR mutations. *Fertility and Sterility*, 110(4), e394-e395.
- Costandi, M. (2013). Citizen microbiome. *Nature biotechnology*, 31(2), 90-91.
- Domínguez-López, I., Yago-Aragón, M., Salas-Huetos, A., Tresserra-Rimbau, A., & Hurtado-Barroso, S. (2020). Effects of dietary phytoestrogens on hormones throughout a human lifespan: A review. *Nutrients*, 12(8), 2456.
- Ervin, S. M., Li, H., Lim, L., Roberts, L. R., Liang, X., Mani, S., & Redinbo, M. R. (2019). Gut microbial  $\beta$ -glucuronidases reactivate estrogens as components of the estrobolome that reactivate estrogens. *Journal of Biological Chemistry*, 294(49), 18586-18599.
- Eslami-S, Z., Majidzadeh-A, K., Halvaei, S., Babapirali, F., & Esmaeili, R. (2020). Microbiome and breast cancer: new role for an ancient population. *Frontiers in oncology*, 10, 120.
- Filippone, A., Rossi, C., Rossi, M. M., Guarino, D., Maggiore, C., Di Micco, A., ... & Magno, S. (2021). The Key Role of Human Microbiota in Breast Cancer.
- Fuentes, N., & Silveyra, P. (2019). Estrogen receptor signaling mechanisms. *Advances in protein chemistry and structural biology*, 116, 135-170.
- Genkinger, J. M., Makambi, K. H., Palmer, J. R., Rosenberg, L., & Adams-Campbell, L. L. (2013). Consumption of dairy and meat in relation to breast cancer risk in the Black Women's Health Study. *Cancer Causes & Control*, 24(4), 675-684.
- Gust, K., Caccese, C., Larosa, A., & Nguyen, T. V. (2020). Neuroendocrine effects of lactation and hormone-gene-environment interactions. *Molecular Neurobiology*, 57, 2074-2084.
- Human Microbiome Project Consortium *Nature* 486, 207-214; 2012
- Ivell, R., Heng, K., & Anand-Ivell, R. (2014). Insulin-like factor 3 and the HPG axis in the male. *Frontiers in endocrinology*, 5, 6. Chicago
- Kim, A. E., Lundgreen, A., Wolff, R. K., Fejerman, L., John, E. M., Torres-Mejía, G., ... & Stern, M. C. (2016). Red meat, poultry, and fish intake and breast cancer risk among Hispanic and Non-Hispanic white women: The Breast Cancer Health Disparities Study. *Cancer Causes & Control*, 27(4), 527-543.





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### References, Cont.

- Kwa, M., Plottel, C. S., Blaser, M. J., & Adams, S. (2016). The intestinal microbiome and estrogen receptor-positive female breast cancer. *JNCI: Journal of the National Cancer Institute*, 108(8).
- Lu, Mengqing, et al. "Concentrations of estrogen and progesterone in breast milk and their relationship with the mother's diet." *Food & function* 8.9 (2017): 3306-3310.
- McNeilly, A. S. (1993). Lactational amenorrhea. *Endocrinology and metabolism clinics of North America*, 22(1), 59-73.
- Mourouti, N., Kontogianni, M. D., Papavagelis, C., Plytzanopoulou, P., Vassilakou, T., Malamos, N., ... & Panagiotakos, D. B. (2014). Adherence to the Mediterranean diet is associated with lower likelihood of breast cancer: a case-control study. *Nutrition and cancer*, 66(5), 810-817.
- Neuman, H., Debelius, J. W., Knight, R., and Koren, O. (2015). Microbial endocrinology: the interplay between the microbiota and the endocrine system. *FEMS Microbiol. Rev.* 39, 509–521. doi: 10.1093/femsre/fuu010
- Neville, Margaret & McFadden, Thomas & Forsyth, Isabel. (2002). Hormonal Regulation of Mammary Differentiation and Milk Secretion. *Journal of mammary gland biology and neoplasia*. 7. 49-66. 10.1023/A:1015770423167.
- Parida, S., & Sharma, D. (2019). The microbiome-estrogen connection and breast cancer risk. *Cells*, 8(12), 1642.
- Peters, B. A., Lin, J., Qi, Q., Usyk, M., Isasi, C. R., Mossavar-Rahmani, Y., ... & Kaplan, R. C. (2022). Menopause Is Associated with an Altered Gut Microbiome and Estrobolome, with Implications for Adverse Cardiometabolic Risk in the Hispanic Community Health Study/Study of Latinos. *Msystems*, 7(3), e00273-22
- Peters, B. A., Santoro, N., Kaplan, R. C., & Qi, Q. (2022). Spotlight on the gut microbiome in menopause: current insights. *International Journal of Women's Health*, 1059-1072.
- Phimegistus, Hermes. The Goddess Hecate represents the Three Estrogens. *Neuromythography website*. Accessed June, 2022. <https://www.neuromythography.com/hecate-the-triple-goddess-symbolizes-the-three-estrogens/>
- Precision Analytical, Inc. The Dutch Test. Accessed June 2022. <https://dutchtest.com>
- Regal, P., Fente, C. A., Cepeda, A., & Silva, E. G. (2021). Food and omics: unraveling the role of food in breast cancer development. *Current Opinion in Food Science*.
- Samavat, H., & Kurzer, M. S. (2015). Estrogen metabolism and breast cancer. *Cancer letters*, 356(2), 231-243.
- Schreurs, M. P., de Vos van Steenwijk, P. J., Romano, A., Dieleman, S., & Werner, H. M. (2021). How the gut microbiome links to menopause and obesity, with possible implications for endometrial cancer development. *Journal of clinical medicine*, 10(13), 2916. Chicago
- Stasangi, N., Devki, V. G., Neelam, D. K., & Rahi, R. K. Microbiota of Human Gut-A Natural Remedy for Human Illness.
- Sturgeon, S. R., Heersink, J. L., Volpe, S. L., Bertone-Johnson, E. R., Puleo, E., Stanczyk, F. Z., ... & Bigelow, C. (2008). Effect of dietary flaxseed on serum levels of estrogens and androgens in postmenopausal women. *Nutrition and cancer*, 60(5), 612-618.
- Suliga, E., Ciesla, E., Gluszek-Osuch, M., Lysek-Gladysinska, M., Wawrzycka, I., & Gluszek, S. (2020). Breastfeeding and prevalence of metabolic syndrome among perimenopausal women. *Nutrients*, 12(9), 2691.
- Virgili, E., Calza, L., Testa, E., & Emili, R. (2018). Soy intake and breast cancer. *J Health Med Inf*, 9(316), 1-3.
- Younis, N., & Mahasneh, A. (2020). Probiotics and the envisaged role in treating human infertility. *Middle East Fertility Society Journal*, 25(1), 1-9.
- Zengul, A. G. (2019). Exploring the Link Between Dietary Fiber, the Gut Microbiota and Estrogen Metabolism among Women with Breast Cancer (Doctoral dissertation, The University of Alabama at Birmingham).