

The Ins and Outs of Menopause

Research-based strategies to improve your wellness during midlife

Katherine M. Hatcher, Ph.D., M.S.
katherinehatcher@gmail.com



I want to acknowledge that I am presenting to you from occupied land of the Mohican people. Learn more here: <https://native-land.ca/>



- @superchiasmatic
- www.kmhatcher.com
- @EndocrinePod
- www.endocrinepod.com

Disclaimer



I am a doctor, but
not that kind of
doctor



I am not YOUR
doctor



Please consult your
doctor before
starting any new
exercise or therapy!

Overview of today's conversation

Menopause
basics

Symptoms
of
menopause

What
affects
these
symptoms?

Check-in

What can
we do for
our
wellness?

Q&A

About your presenter: meet Katherine

- B.S. in Biological Sciences → M.S. in Neurobiology → Ph.D. in Neuroscience → Postdoc in Neuroendocrinology (Albany, NY)
- I have researched... menopause, sleep, circadian rhythms, toxicology & endocrine disrupting chemicals, endocrinology, reproductive physiology, & sex differences
- Host of Endocrine Disruptors Podcast (www.endocrinepod.com)
- Cat mom to 3 cats, lover of cooking and baking, collector of craft beer, amateur embroiderer, and avid reader of fiction



What words come to mind when
you think of **menopause**?

Type however many words you can think of in the box!

Menopause basics

What is menopause? What does it look like? What causes it?

What symptoms arise during menopause?

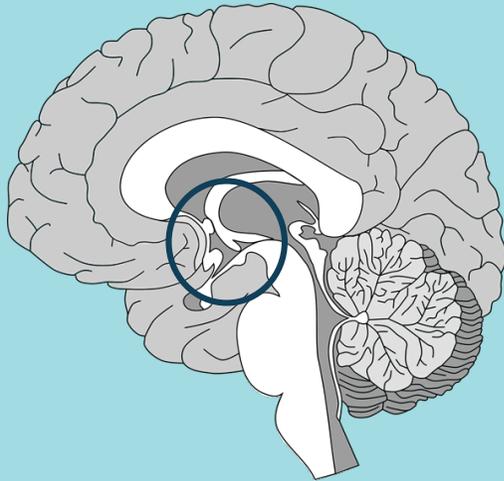
What makes symptoms worse?



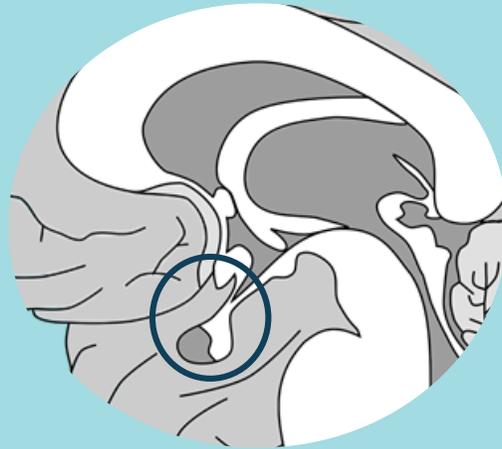
Menopause basics

Reproductive physiology 101: 3 main players

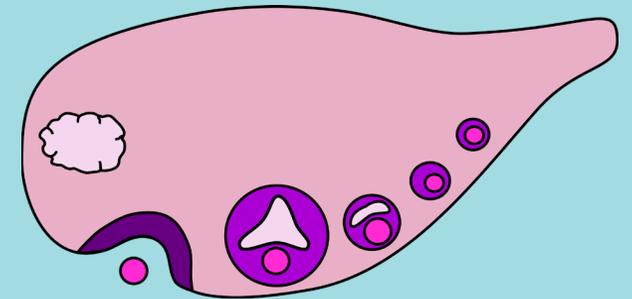
Brain (hypothalamus)



Pituitary



Ovaries



- The menstrual cycle is regulated by hormones from **ovaries**
 - Hormone signals from the **brain (hypothalamus)** and **pituitary** stimulate the ovaries to produce hormones
- The dysfunction of these organs during aging or following medical procedures is the main driver of menopause

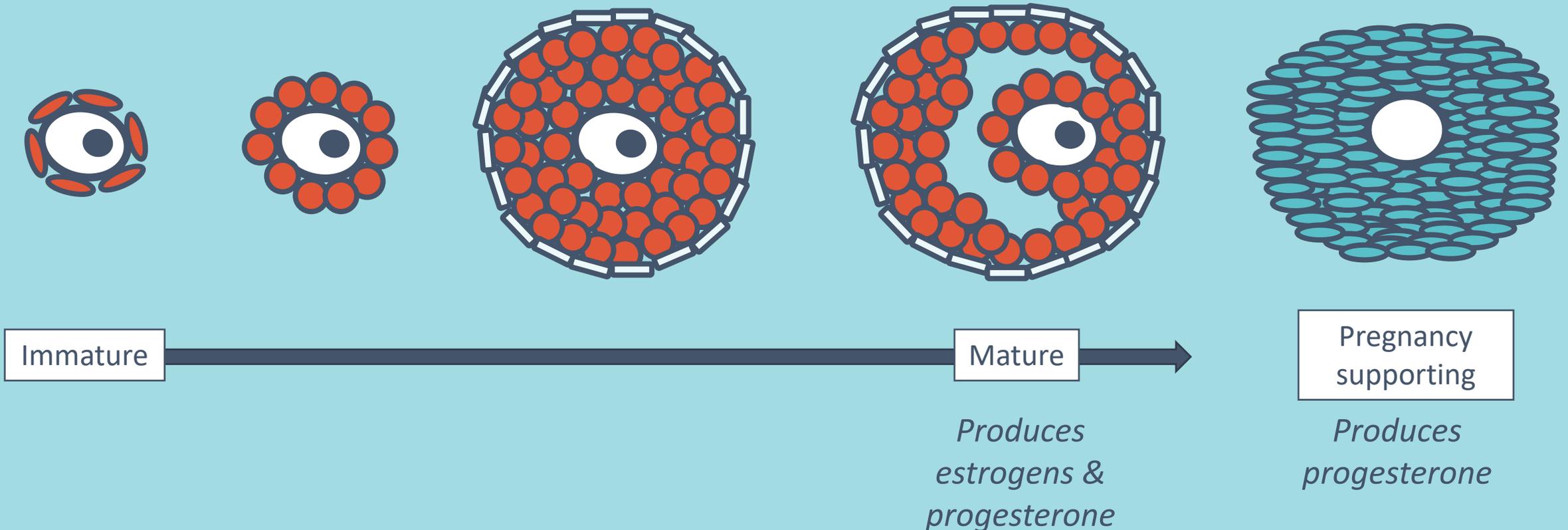
Menopause basics

Reproductive physiology 101: the ovary



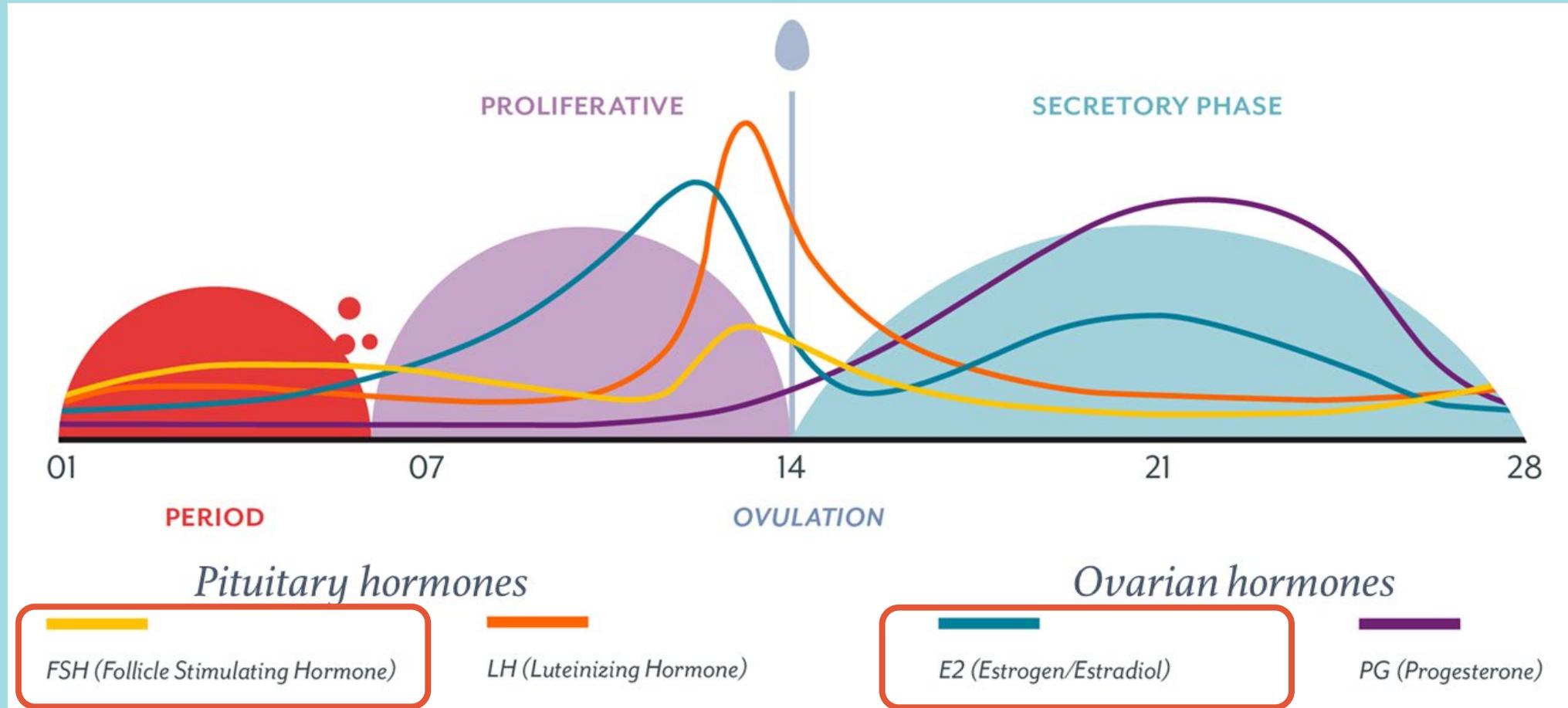
Ovarian follicle maturation

- Follicles are where the “egg” grows
- They are also important for making hormones



Menopause basics

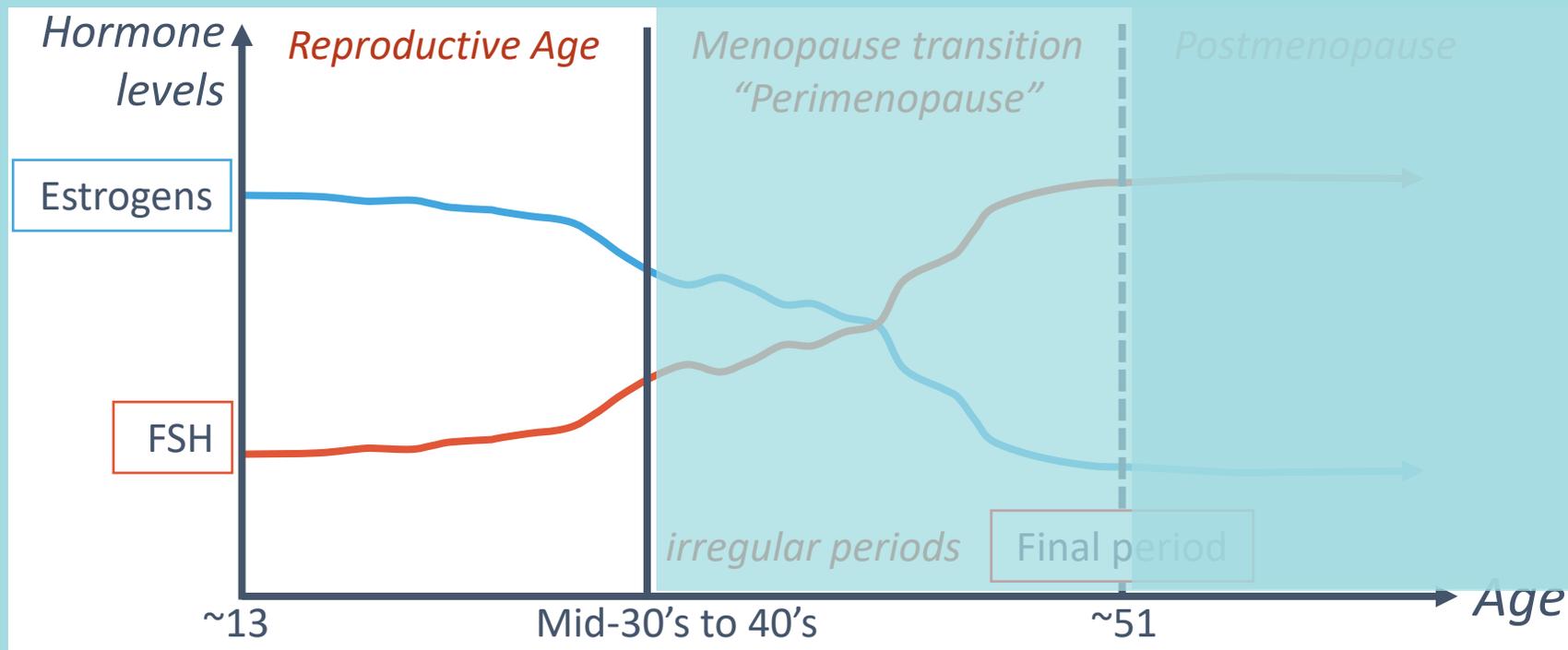
Reproductive physiology 101: Menstrual cycle



Menopause basics

What is menopause?

- Menopause means...
 - To folks talking about the science: your final menstrual period
 - To everyone else: the period of time before and after your final menstrual period
→ *the menopause transition/postmenopause*



Menopause basics

Types of menopause & causes

“Natural” menopause

- Natural decline
- Aging of the hypothalamus, pituitary, and ovaries
- Can occur over the span of several years
- **Loss of follicles = lower estrogens & progesterone**

Early onset menopause

- Final menstrual period occurs before 40
- Often secondary to other medical conditions or surgeries that indirectly affect ovaries
- Genetics & lifestyle factors

Surgical/medical menopause

- Consequence of surgical removal of ovaries or chemotherapy
- Sudden drop in hormone levels & onset of menopause symptoms



Menopause basics

What does menopause look like?

Irregular periods

Sleep disruptions

Mood changes

Thinning hair, skin

Hot flashes, chills

Metabolism changes

Vaginal dryness

Reduced sex drive



[Click here](#) to see 34 potential signs of menopause



Menopause basics

Factors that influence menopause

Menstrual
history

Overall
health

Pregnancy

Age of
onset

Chemical
exposure

Ethnicity &
culture



Menopause basics

Factors that influence menopause

Smoking
history

Alcohol
use

Physical
activity

Socio-
economic

Fat
mass

Diet &
nutrition

Menopause basics

What matters most

Change in functions of the hypothalamus, pituitary, and/or ovaries

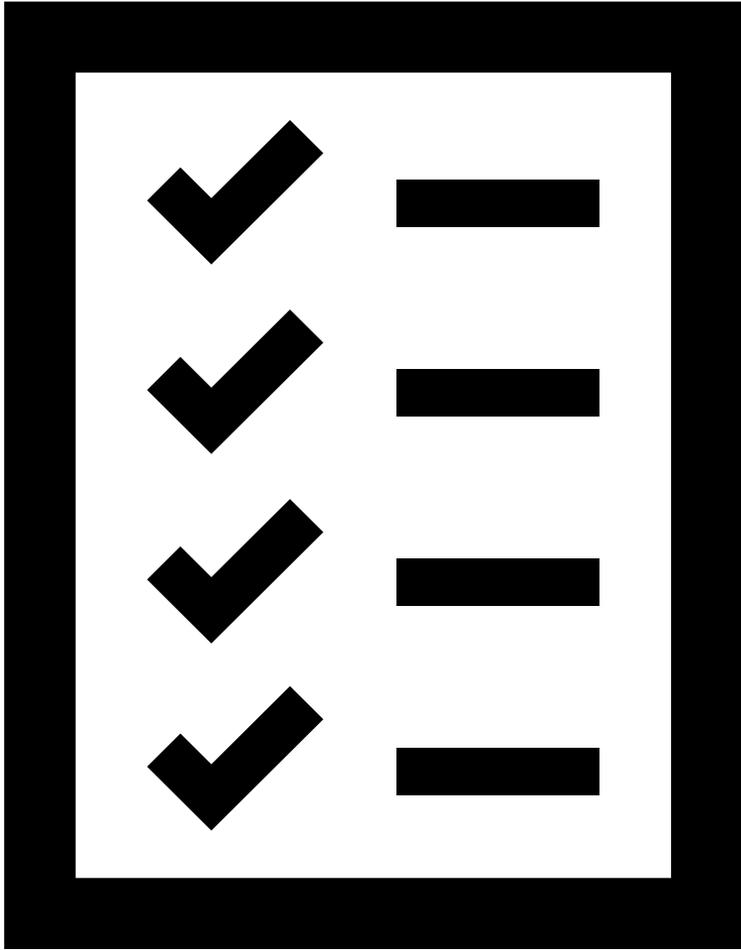
Change in hormone profiles
Primarily estrogens, progesterone, & FSH

Regardless of cause, symptoms can develop

Biological and lifestyle factors can affect your symptoms

Regardless of reason, if symptoms bother you, talk to your doctor!





*Check
in*



What can we do?

What is within my control?

What does the research say?

How do I support someone undergoing menopause?

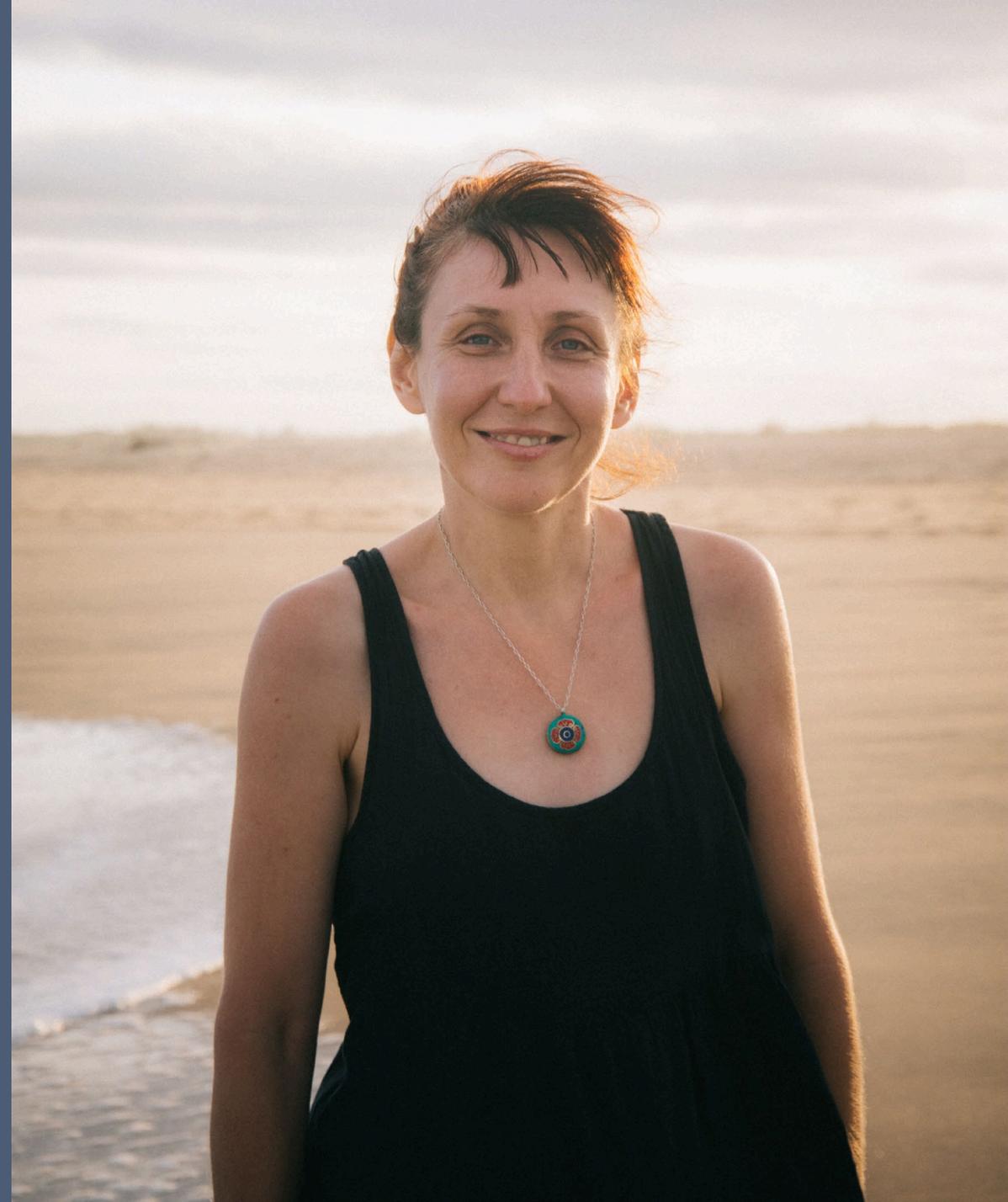


Remind yourself what is within your control

Two approaches

- 1. Improve your wellness:** make choices that improve your quality of life
- 2. Treat the symptoms:** you can't stop it, but you can manage it

*If something is bothering you,
talk to your doctor!*



What can we do?

Reduce or stop smoking (tobacco)



Women who smoke are more likely to

- Go into menopause at a younger age
- Experience more frequent and severe symptoms
 - Hot flashes
 - Sleep disruptions
 - Depression
 - Cognitive decline
- Need help? University of Illinois Extension has resources:
 - <https://web.extension.illinois.edu/smokefree/default.cfm>

What can we do?

Medications *(Please consult your doctor before taking any new medications)*

Anti-depressants or anti-anxiety meds

- Reduce depression & anxiety
- **Off-label:** treatment of hot flashes, insomnia

Other medications or medical interventions

Hormone therapies – prescribed

- Estrogens and progestins
- Hot flashes, insomnia, depression, vaginal health

- Melatonin may help with insomnia, short-term
- GABA_A agonists (non-benzodiazepine) for treatment of insomnia
- Treatment of sleep apnea

Hormone therapies – botanicals

- Naturally occurring hormones from plant sources (can be dietary)
- ***Dose often NOT regulated***

A group of people are hiking on a rocky trail in a forest. The image shows the lower legs and feet of several hikers as they ascend a steep, rocky path. The hikers are wearing dark leggings and colorful sneakers. The background is a lush green forest with sunlight filtering through the trees. The text is overlaid on the left side of the image.

What can we do? Exercise

A large study that compared multiple experiments found:

- Exercise at a low-to-moderate intensity reduces depression, perceived stress, and insomnia
 - Aerobic exercise (swimming, cycling, walking, elliptical) and yoga
 - 40-60 minutes 3-5 times per week

A group of people are hiking up a rocky trail in a forest. The image shows the lower legs and feet of several hikers as they ascend a path made of large, moss-covered rocks. The hikers are wearing athletic gear, including leggings and sneakers. The background is a lush, green forest with sunlight filtering through the trees.

What can we do? Exercise

Exercise may be able to reduce frequency and severity of hot flashes

- 15 weeks of resistance training (Berin *et al*, Maturitas (2019))
 - 8 exercises, 8-12 repetitions in 2 sets with weight OR body weight until exhaustion
 - 3 days per week with 7-10 minutes of stretching beforehand
 - One session with physiotherapist per week
- 12 weeks of aerobic exercise (Bailey *et al*, Menopause (2016))
 - 30-mins of moderate-intensity aerobic exercise based on current fitness level, 3x per week

What can we do?

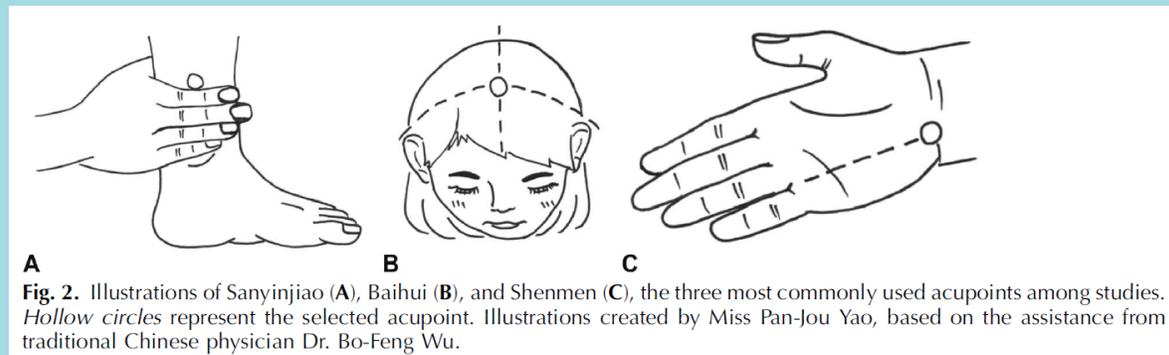
Therapies and other interventions

- **Cognitive behavioral therapy (CBT)**: combines cognitive therapy with behavioral and educational interventions to treat symptoms of menopause
 - **Sleep** – focus on insomnia-specific CBT (CBT-I), with sleep restriction & sleep hygiene education
 - **Hot flashes** – helps reduce stress associated with hot flashes
- **Health education/coaching**
 - 1-year health coaching by phone (focusing on quitting smoking, improving diet (*more balanced diet*), and increasing exercise) reduced general menopause symptoms (Almeida *et al*, Maturitas (2016))
 - 12-week health education with diet & exercise supervision improved some symptoms, including depression, fatigue, and pain (Xi *et al*, Climacteric (2017))

What can we do?

Therapies and other interventions

- **Hypnosis:** primarily focused on relaxation (Otte *et al*, J. of Women's Health (2020))
 - Self-hypnosis or via hypnotherapist (in person and over phone) has been shown to improve sleep quality after 8 weeks of treatment
 - May also be effective for reducing discomfort from hot flashes
- **Acupuncture:** reduces sleep disturbances & hot flashes associated with menopause [Chiu *et al*, Obstetrics & Gynecology (2016); Baccetti *et al*, J. Altern. Complement. Med. (2014)]



What can we do?

Mindfulness and meditation

- **Mindfulness and relaxation training** that focuses on attention to the body, gradual relaxation of muscles, and attention to breath
 - *8 week trained program* – 24-40 minutes per day
 - *Practices include*
 - Mindful muscle relaxation
 - Loving kindness meditation
 - Mindfulness meditation – noticing body, breath, and surroundings
 - Informal conversations with other participants

Reduced insomnia, hot flashes, quality of life (psychological & physical), and attention



What can we do?

Supporting someone going through menopause

What are some ways that you can support someone going through menopause?

1. “It’s because of menopause.” is not always the case.
2. Listen. And be mindful not to add to her guilt.
3. Don’t take it personally.

4. Educate yourself, too!
5. Let her control the thermostat.
6. Be part of her support network! Join her in her new endeavors.

What can we do?

Final thoughts

1. What works for your friend may not work for you!
 2. Work with your healthcare providers (doctor, therapist, psychiatrist) to find a treatment plan that best addresses your concerns
 3. Keep track of your progress!
-





*Remember... it's all
connected!*

Symptoms

Lifestyle

Physical health

Mental health

Community & support network

...

Conclusions

Key takeaways

Action items you can start today!

Resources

Q&A



Conclusions

Key takeaways

1

Menopause is caused by changes in the brain, pituitary, and ovaries

2

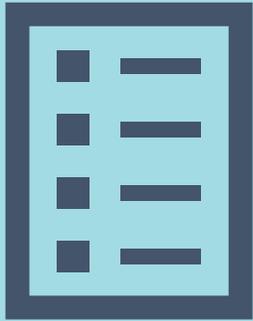
Many factors influence menopause symptoms

3

There are lifestyle changes I can make that can improve my quality of life

Action items

What can I do today?



1. Take note of your concerns, symptoms, and what you're currently doing to address these concerns



2. Make appointments with your healthcare providers to address your concerns and ideas for improving your wellness



3. Take time for YOU! Try new activities and routines and find what works best for your mental and physical wellness.



4. Find your support network. Whether it be online, your partner, friends, or other people within the local community, you will find others to help you be your best.



nationalmenopausefoundation.org



lisahealth.com



redhotmamas.org

Resources
Build community



hormone.org



menopausemap.org



menohealth.co.uk

Resources

Learn more about menopause



The Positive Pause



The Happy Menopause



Endocrine Disruptors

Resources

Podcasts to learn about menopause, hormones

Resources

Additional reading

- **Menstrual Cycle Basics:** <https://helloclue.com/articles/cycle-a-z/the-menstrual-cycle-more-than-just-the-period>
- **Menopause basics:** <https://www.mayoclinic.org/diseases-conditions/menopause/symptoms-causes/syc-20353397>
- **Top rated menopause books:** <https://www.menohealth.co.uk/menopause-everything-you-need-to-know/top-rated-menopause-books/>
- **Sleep Foundation – Menopause-specific topics**
<https://www.sleepfoundation.org/?s=menopause>
- **Illinois Extension – Mindfulness for Stress Reduction resource**
<https://extension.illinois.edu/sites/default/files/mindfulness.pdf>
- **Is soy good or bad for you?**
<https://examine.com/nutrition/is-soy-good-or-bad/>



Summer Self-Care Series

Next week's session

Training Your Immune System

Outlining the Effects of Exercise on Immune Function

Noah Hutchinson

Graduate student

Division of Nutritional Sciences at the University of Illinois

Tuesday, July 7th

12:00-1:00pm Central Time

Register here: <http://go.illinois.edu/selfcare>

thank
you

