

Menopause & Diet: Approaches, Challenges, and Evidence-Based Solutions

August 10, 2023



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MENOPAUSE

Menopause & Diet: Approaches, Challenges, and Evidence-Based Solutions

REVIEWING THE BASICS and how lifestyle and diet can deliver RELIEF

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Midi Health is a trusted virtual care for women in midlife, addressing:

- Menopause/HRT
- Lifestyle (smoking, EtOH, exercise, diet, weight)
- Inclusive of Naturopathic expertise/solutions
- All services covered by insurance
- Protocols and care created by multidisciplinary clinical experts



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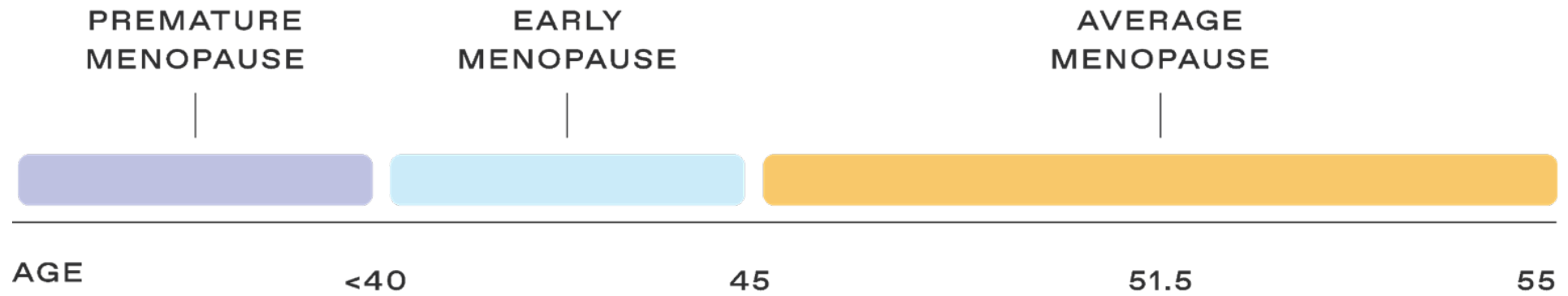
First, a quick **menopause overview...**



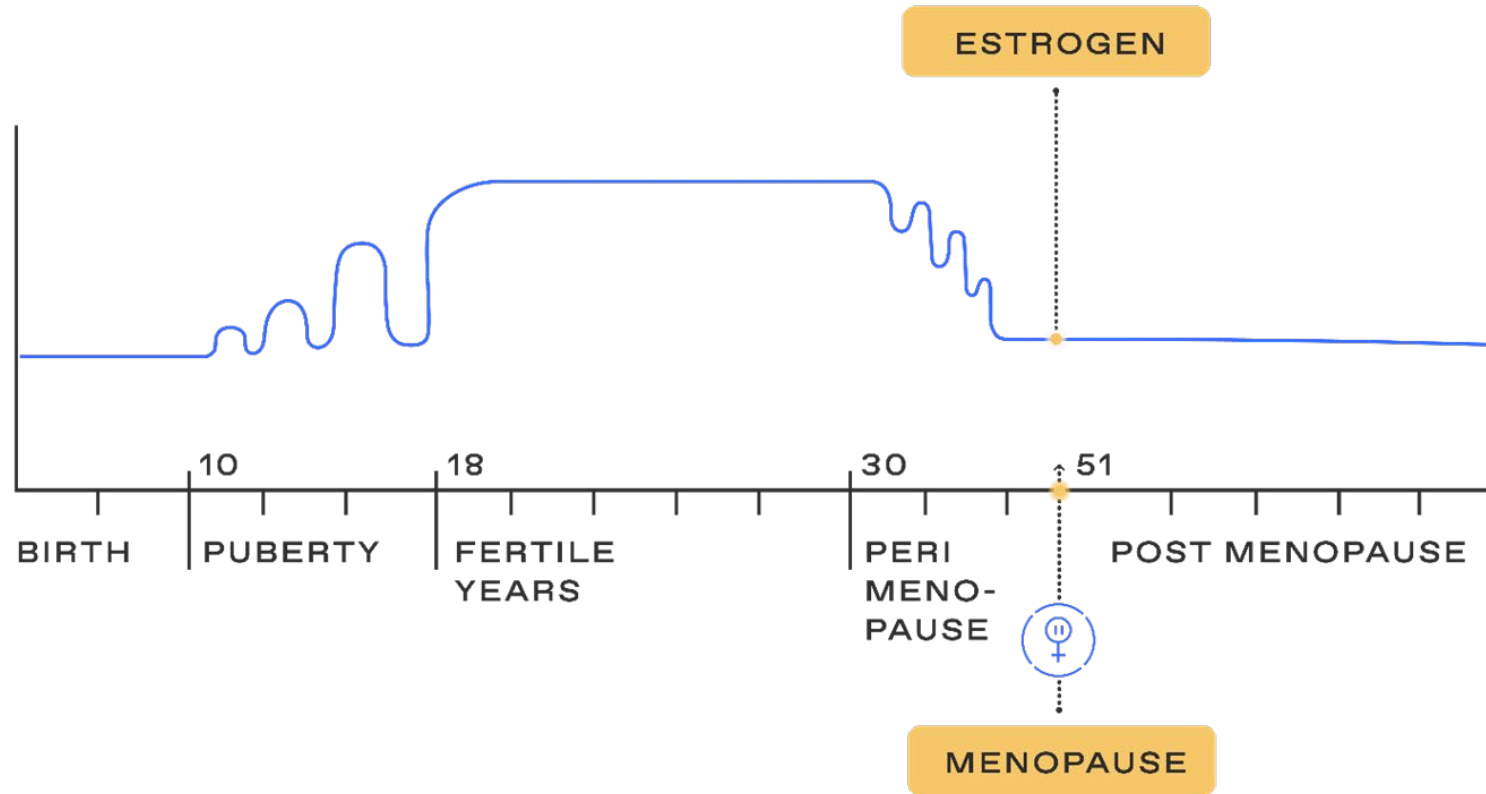
What is Menopause?

- Defined as 12 months from a woman's last menstrual period
- Estrogen and progesterone levels drop
- These hormonal shifts can cause physical and emotional symptoms
- The menopause transition affects every woman differently
- Many effective treatments are available for menopause symptoms, from hormone therapy to lifestyle changes

WHEN MENOPAUSE MIGHT START

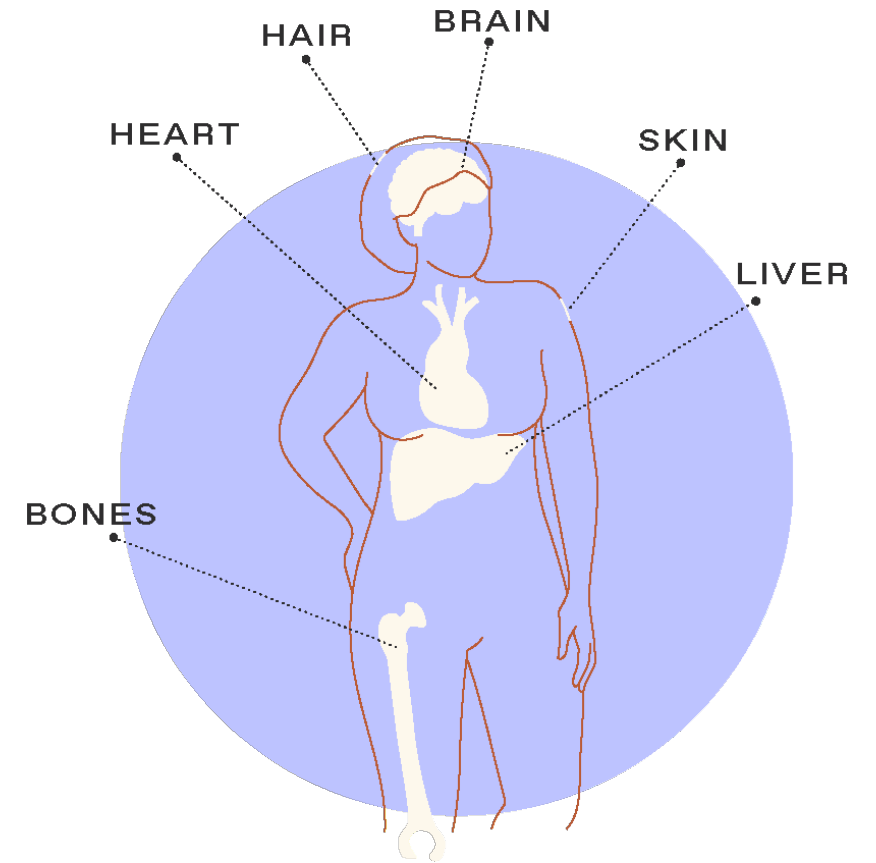


ESTROGEN LEVELS CHANGE OVER TIME



Estrogen receptors aren't just in the vagina

- Estrogen receptors are in many organ systems
- “Estrogen withdrawal” is real and can cause many symptoms and health effects





CLASSIC MENOPAUSAL SYMPTOMS

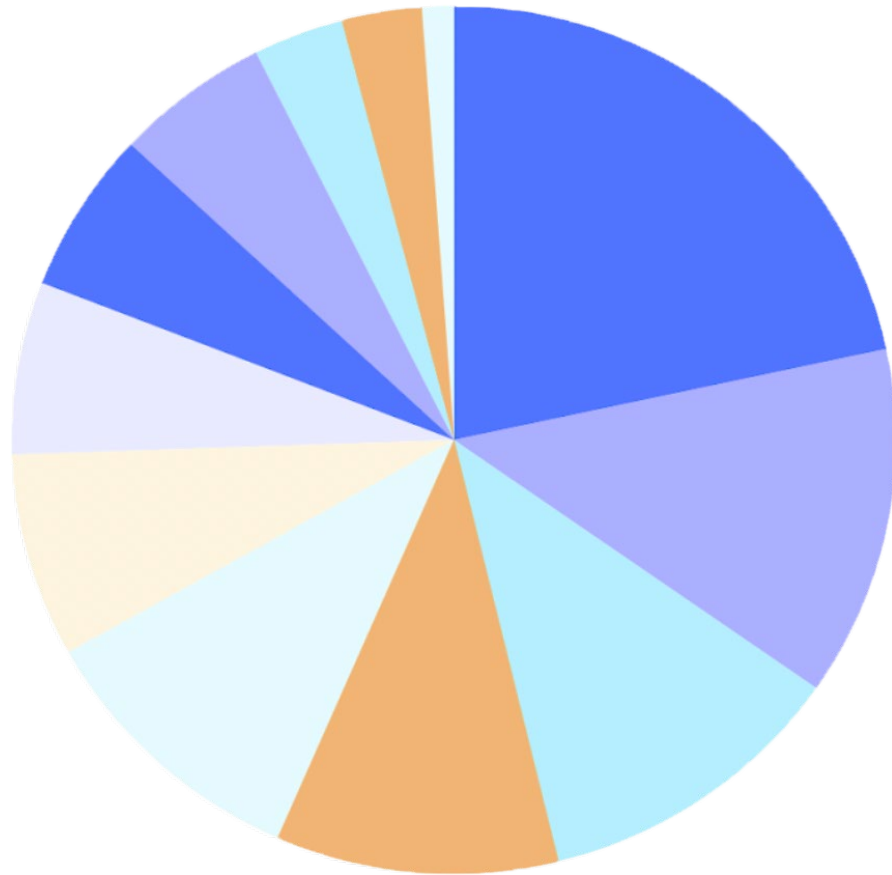
- Irregular periods in the perimenopause
- Hot flashes
- Night sweats
- Sleep disturbance
- Vaginal dryness
- Mood changes + irritability
- Decreased libido
- Difficulty concentrating or “brain fog”
- Memory lapses
- Bone loss
- Skin changes
- Weight gain



LESS COMMON SYMPTOMS

- Breast soreness
- Itchiness
- Tingling extremities
- Dental problems - dry mouth
- Joint pain
- Muscle tension + aches
- Burning mouth
- “Electric shock” sensations
- Bloating
- Digestive changes
- Thinning hair
- Brittle nails
- Irregular heartbeat
- Headaches + migraines
- Dizziness
- Allergies
- Stress or urge incontinence
- Body odor
- Fatigue
- Depression
- Anxiety
- Panic disorder

Symptoms Midi patients are experiencing



- Weight + body changes
- Painful sex + libido change
- Hot flashes + night sweats
- Moodiness, anxiety + depression
- Trouble sleeping
- Brain fog + memory lapses
- Preventative care
- Hair + skin changes
- Joint pain + bone loss
- Period problems
- Other
- Cancer effects

Weight: WHAT IS GOING ON?



- Some of this weight gain is the result of aging:
 - An age-related slowing of our metabolism with loss of muscle mass, and decrease in activity all contribute
- But the **shift in estrogen levels** plays a big role too....
- On average, women **gain 1.5 pounds per year** after going through menopause
- Women's fat distribution changes as well with worsening of the waist to hip ratio (WHR)
 - More fat accumulation around the midsection
 - Waist to Hip ratio reflects visceral fat which is linked type 2 diabetes and heart disease.
 - Higher WHR means worsening mortality.

Insulin Sensitivity worsens



How: Leptin is a hormone made by fat that affects appetite, and insulin sensitivity. Menopause lowers leptin levels. Lower adiponectin levels decreases ability of target tissues to utilize/react to high glucose.

- Concomitant: Adrenal and thyroid function changes
- Estrogen itself (like leptin) helps control appetite
- The increased visceral fat also worsens insulin sensitivity

This Worsening insulin sensitivity increases risk

- Diabetes (38% adults w/prediabetes: only 1 in 5 know it!)
- Cardiovascular disease (decreased vasodilation)
- Breast cancer (and others) risk rises with diabetes

Hyperlipidemia



- Incidence of dyslipidemia increases from 24% pre- to 70% post menopause
 - LDL increases
 - HDL decreases
 - Triglycerides increase

BONE LOSS



- Estrogen supports bone formation (osteoblasts) and maintenance
- Falling estrogen → bone loss (10% in first 5 years of menopause)
- Downstream risk of osteoporosis and fractures
- DEXA scanning assesses bone density-routinely done after age 65, at risk women 50+ should be screened if:
 - Fam hx: Parent with a fractured hip or other fx
 - Low BMI
 - History of fracture post minor trauma
 - white/asian women (4 x osteoporosis than men)
 - Steroid use
 - Alcohol or smoking
 - Rheumatoid arthritis, HIV, autoimmune disorders, etc

WHAT else is GOING ON?



Menopause can contribute to weight gain indirectly through:

- **Trouble sleeping**

- Little sleep = decreased energy or motivation to be active
- Sleep problems can affect appetite hormones → Reach for high-carb foods
- 60% of women report trouble sleeping.
- Urinary symptoms and night sweats contribute

- **Mood problems**

- Chronic stress is associated with higher levels of cortisol, which can lead to overeating and weight gain
- Depression w/ more emotional eating + increased appetite
- Anxiety is also associated with higher calorie intake

What can help?

Your action steps:



- Recognize your body is changing and we need to adjust to optimize our health.
- Seek a qualified clinician/dietician who can guide you to a sustainable, research-backed approach to feeling better
- Lasting improvements (eg in wt loss) requires adjusted lifestyle that can be sustained even after reaching your goal weight
- **Evidence supports many interventions that can help ranging from exercise regimes, integrative therapies (eg mindfulness, acupuncture), hormonal interventions (HRT), nonhormonal prescriptions and supplements, and lifestyle and diet adjustments...**



#1: EXERCISE

- **Physical activity can help:**
 - Counter weight gain
 - Improves insulin sensitivity
 - Promote better sleep
 - Associated with decreased cancer rates, esp breast
 - Alleviate mental health symptoms that may contribute to overeating
- **Strength training is important!**
 - Builds lean body mass, which helps increase calorie burn
- **What matters most: consistency!**
 - Choose an activity you enjoy doing :)
 - Aim for 150 minutes of aerobic exercise per week
 - Try to strength train twice a week



#2: SLEEP

To prevent menopause-induced sleep problems, one can try:

- **Good sleep hygiene:**
 - Dimming the lights and turning off devices before bedtime (two hours before = ideal, but any amount helps!)
 - Avoiding working out late in the afternoon or evening
 - Aiming to go to bed and wake up at the same time daily
 - Getting in the habit of only using the bed for sleep, sex, and reading
 - Establishing a calming bedtime routine (stretching, taking a bath, whatever helps)
- **Medications or supplements:**
 - Taking melatonin and/or Mg+ as needed, if it's right for you
 - Taking hormone replacement therapy (HRT), if it's right for you

#4: MEDICATIONS



Hormone replacement therapy (HRT)

- Can help w/ sleep and mood issues
- Shown to help Waist:hip ratio
- decreases in total fat mass and abdominal fat



Targeted weight-loss drugs

- Injectable GLP-1s are most effective
 - Semaglutide (Wegovy, Ozempic) and tirzepatide (Mounjaro) if:
 - a body mass index of 30 or above
 - BMI > 27 + one obesity-related health complication
 - Should be used along with helpful lifestyle changes



Other medication options used:

- Wellbutrin
- Contrave
- Metformin
- Phentermine





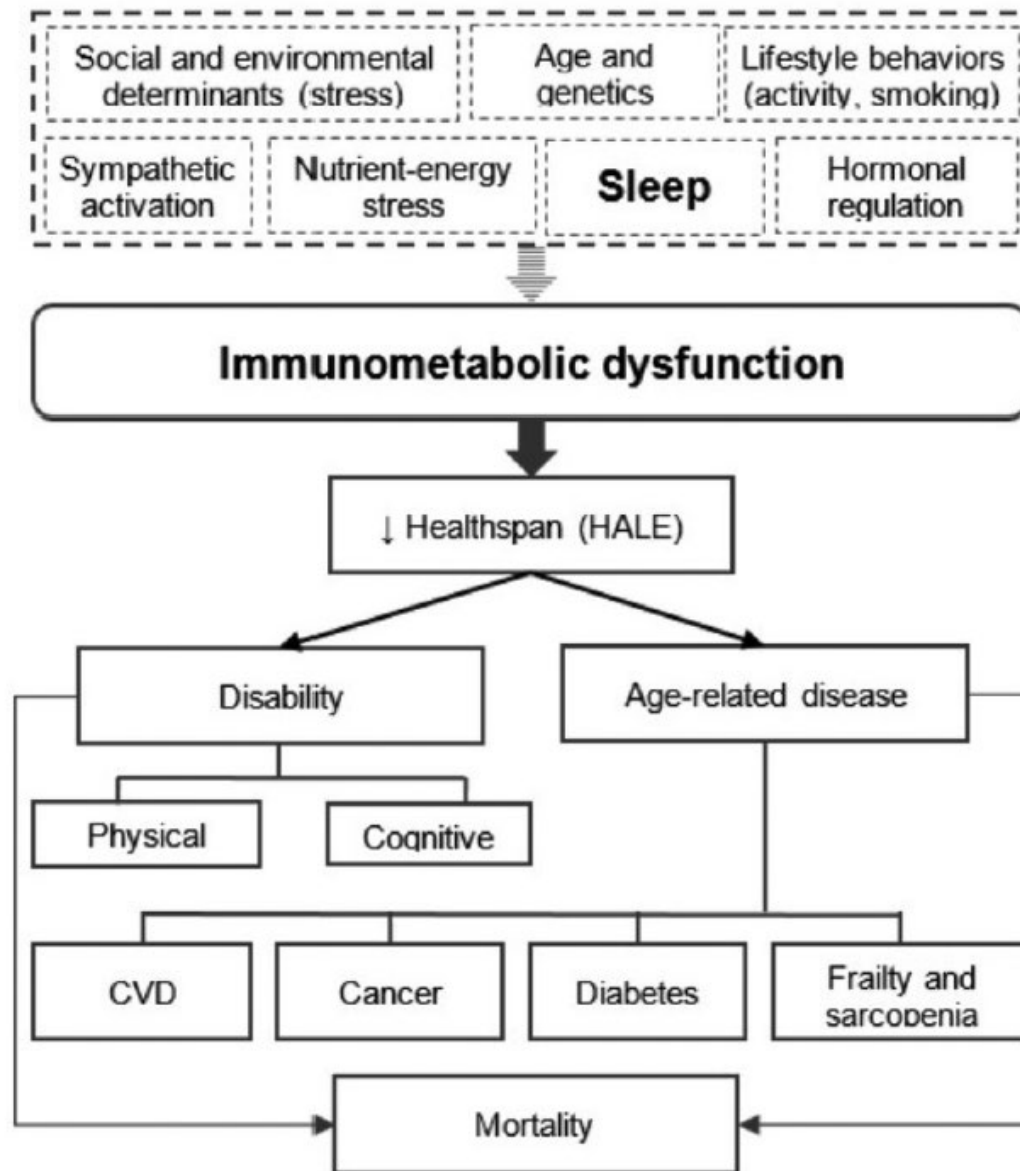
#3: NUTRITION

The best eating pattern for the symptoms of menopause and for healthy weight management is the one that works for *you* and that is sustainable for you.



**Menopause, Sleep,
and Metabolism:
An Integrative MD's
Approach**

Aviva Romm, MD



Diet and Sleep

- Diet and Sleep Relationship:
 - Prospective study with 50,000+ postmenopausal women.
 - Examined carbohydrate intake and insomnia risk.
 - Higher-GI diets and added sugars associated with higher insomnia risk.
 - Whole fruits and vegetables linked to lower insomnia risk.
 - Considered various factors including lifestyle, psychosocial, and medical aspects.
- Dietary Adjustment for Better Sleep:
 - Replace high-GI foods with whole, fiber-rich carbs.
 - Low-GI foods (fruits, vegetables, nuts, whole grains) stabilize blood sugar.
 - Avoid eating 3-4 hours before sleep to reduce heartburn and disturbances.



Exercise and Sleep Quality

- Meta-analysis of 10 trials involving perimenopausal women.
- Various exercise interventions (yoga, resistance training, etc.).
- Reduced insomnia severity, bias potential across trials.
- Evening exercise promotes faster sleep onset and deep sleep.



Alcohol's Impact on Sleep

- Alcohol tolerance, metabolism change during menopause.
- Mixed effects on hot flashes, potential acute triggers.
- Excessive drinking linked to higher odds of hot flashes.
- Alcohol affects circadian rhythm and sleep quality.



Cold Exposure and Sleep Regulation:

- Temperature changes may impact sleep regulation.
 - Cold exposure activates brown adipose tissue (BAT).
 - BAT generates heat through uncoupling protein UCP1.
 - Potential weight loss benefits and metabolic effects.
- Practical Considerations:
 - Individual responses to cold exposure vary.
 - Mild cold exposure around 65°F may aid weight loss.
 - Consultation advised, especially for medical conditions.
 - Caution that chronic cold exposure can lead to compensatory increase in daily caloric intake of ~100kcal/day



Botanicals & Supplements: Sleep

Greatest improvements with:

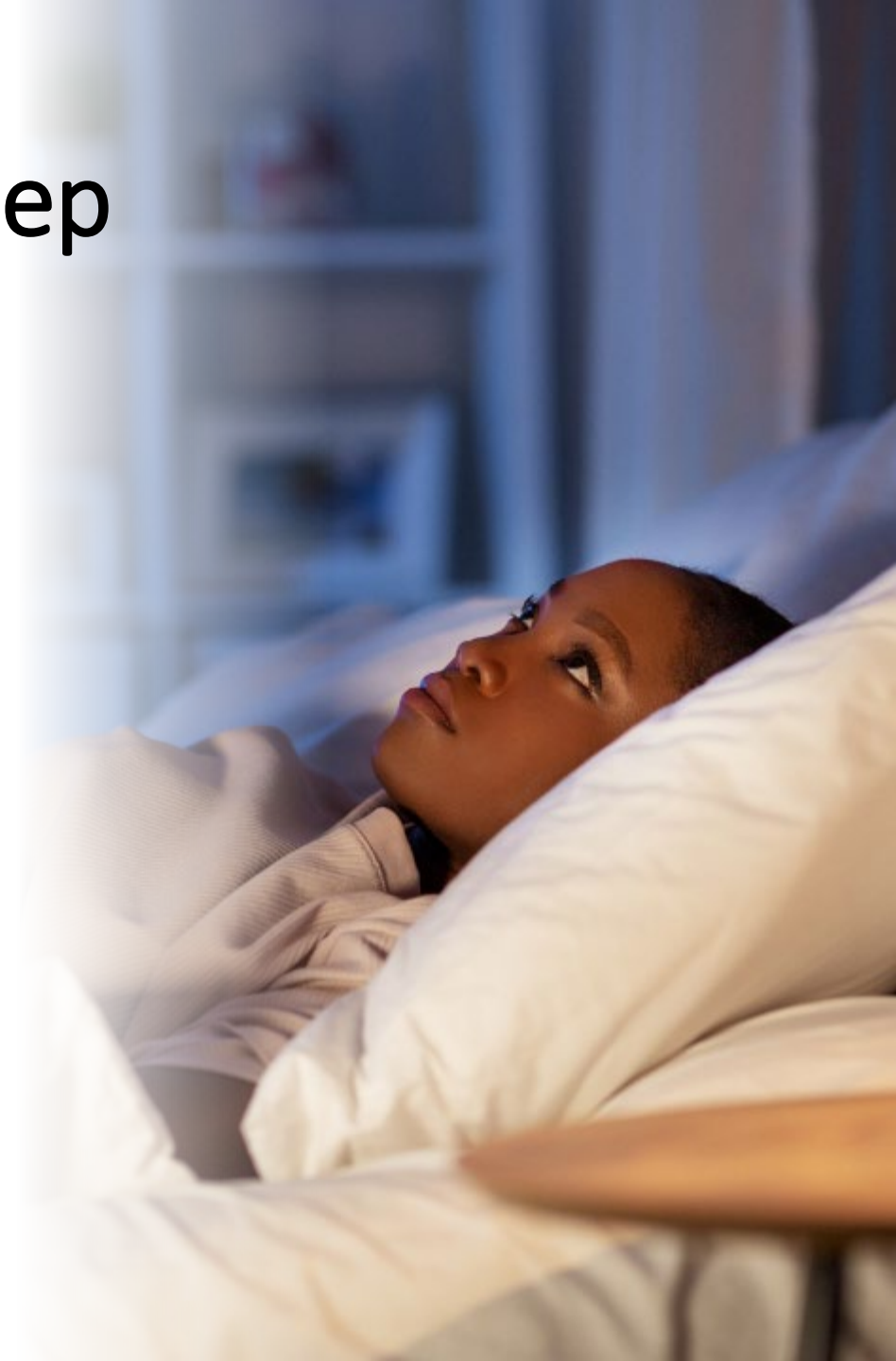
- Melatonin - large improvement
- Fish oil - moderate improvement

Small but still notable improvements in sleep amount and/or quality with:

- Ashwagandha
- Chaste tree (Vitex)
- Lavender
- Lemon balm - but moderate improvement in anxiety

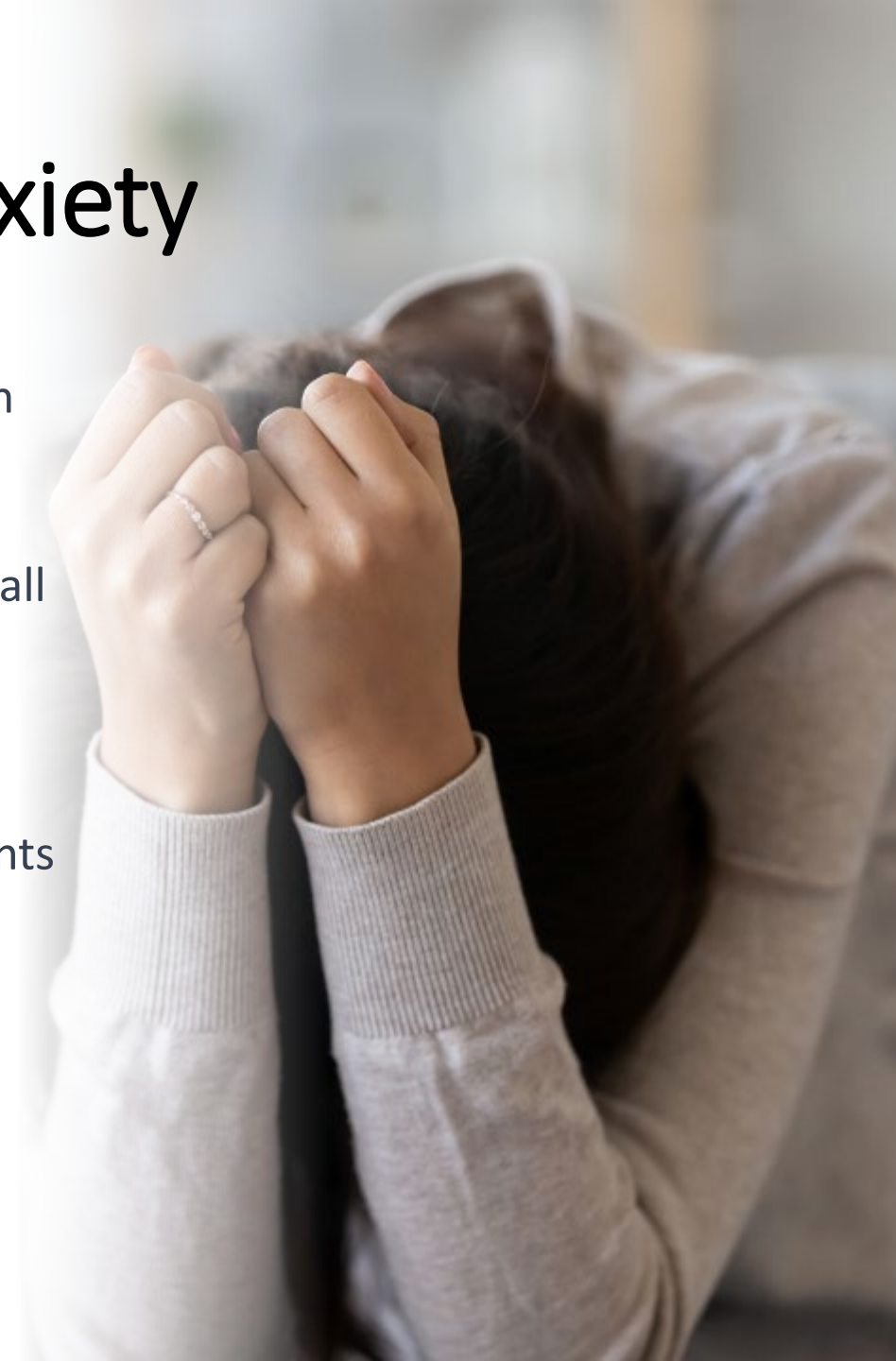
Other

- Rhodiola - moderate reduction in fatigue, mild improvements in anxiety, sleep, depression, well-being and libido/sexual function



Botanicals & Supplements: Anxiety

- Saffron - large improvement in depression, small to moderate in anxiety
- Ashwagandha - moderate reductions in anxiety, stress, and cortisol, with moderate improvement in sleep quality, and a small decrease in weight.
- Kava - moderate improvements in anxiety, stress, and mild decrease in aggression
- Lavender- moderate improvement in anxiety, small improvements in sleep quality and sense of calm
- Lemon balm -- moderate improvements in sleep, anxiety, well-being
- CBD- moderate improvements in anxiety



Botanicals & Supplements: Hot Flashes

- Saffron (depression too)
- Milk Thistle: preliminary but promising results
- Vitex (Chasteberry): Mixed results
- Black cohosh: may be effective; some side effects possible



Key Takeaways

- Dietary adjustments, exercise, and alcohol reduction can improve sleep.
- Cold exposure and BAT activation may support weight loss.
- Individualized approaches and holistic health strategies are crucial.

A 3D sign with the words 'THANK YOU' in a bold, sans-serif font. The sign is orange and is placed on a dark, reflective surface. The background is a light blue wall. The sign is reflected on the surface below it.

THANK YOU

Topics to be covered:

- What about weight?
- Diet and lifestyle strategies to support heart health
- Managing diabetes risk
- Bone health



Let's talk about nutrition for a minute



- Maintaining good nutrition is as much about what you **add** to your diet than what you take away:
 - You can avoid added sugars and still not eat a lot of fruits and vegetables
 - Is a more positive message
 - Does not need to be perfect!
 - *Includes many socioeconomic challenges!*
- The influence of diet on overall health is synergistic – physical activity, social connection, sleep, emotional health and genetics also factor in
- Sorry social media! Individual foods do not turn your health on and off like a switch unless you have a bad allergy → it's the usual dietary pattern that matters!



Menopause, Weight Gain, and Body Composition

Is Weight Gain Inevitable through the Menopause Transition?

Weight gain is common in aging women, particularly through the perimenopausal years – in the US nearly 2/3 of women between 40-60 are overweight; almost half have obesity.

On average, women gain about 1.5# per year in their 40's and 50's independent of their initial body size or race/ethnicity *Mayo Clin Proc.* n October 2017;92(10):1552-1558

Greater tendency for central (android) fat distribution compared with age- and BMI-matched premenopausal counterparts

During menopausal transition visceral adipose tissue (VAT) increases from 5-8% of total body fat to 15-20% *Healthcare (Basel).* 2016 Sep; 4(3): 42

Menopause transition associated with a decrease in lean muscle mass

SWAN Study – Study of Women’s Health Across the Nation

- Longterm study of over 3000 ethnically diverse women
- Collected data on body weight and composition over 18 years, starting ~ 9 years before menopause thru 10 years post last period
- Findings: about 2 years prior to last period, rate of body fat doubled and lean tissue, mostly muscle, started to decline
 - Continued until about 2 years after the last period, then leveled off
 - Body weight increased steadily from pre- to postmenopause and also leveled off 2 years after the final period [JCI Insight. 2019 Mar 7; 4\(5\): e124865](#)

How much is menopause vs. aging?

- Fat redistribution is associated with ovarian aging, but *hard to isolate influences of hormone changes from chronological aging and environmental changes midlife* (less activity, onset of health issues, stress related to raising children/aging parents/demanding careers):
 - Sedentary lifestyle predicts weight gain and abdominal obesity risk more than aging and menopause
 - Per 2020 CDC/National Health Interview Survey (NHIS), % of women who met the guidelines for both aerobic and muscle strengthening physical activities *decreased from 28.7% of those aged 18–34, to 22.7% of those aged 35–49, to 17.6% of those aged 50–64, and 10.8% of those aged 65 and over* <https://www.cdc.gov/nchs/products/databriefs/db443.htm>
 - *Loss of muscle mass contributes to a slower metabolic rate which can easily lead to weight gain when calorie intake and physical activity are not adjusted to compensate*



Weight Management Strategies for Midlife Women

- ***Unless genetically blessed***, most women entering their 40s need to adjust their calorie balance via diet and exercise to minimize weight gain
 - Aim for at least 150 minutes of cardio, 2-3 episodes of strengthening exercise (weights, resistance bands, weight classes, etc) weekly
 - Focus on diet quality: whatever works to incorporate more whole fruits, vegetables, whole grains, nuts, seeds, legumes, seafood, lean animal and plant proteins per preferences to fill up on fewer calories that deliver more health promoting nutrients
 - Limit/avoid ultraprocessed foods
 - Don't drink your calories
 - Eating pattern matters for portion control – proactive eating over the day starting with breakfast can help manage hunger/volume eaten at meals
 - Refer to a registered dietitian for customized approach!



Menopause and Heart Health

Strategies to Help Prevent Cardiovascular Disease

Maintain the healthiest weight possible without over-restricting.

Follow a balanced plant-forward eating plan low in saturated fat, sodium, ultraprocessed foods/added sugars, and alcohol and adequate in fiber.

Get 30 minutes of aerobic exercise on most days of the week for a total of at least 150 minutes per week.

Manage stress to the best of your ability.

Relationship Between a Plant-Based Dietary Portfolio and Risk of Cardiovascular Disease: Findings From the Women's Health Initiative Prospective Cohort Study

AJ Glenn et al. J Am Heart Assoc 2021 Aug 17;10(16):e021515

- Assessed Portfolio Diet (PD) scores of **123,330 postmenopausal women** initially free of CVD from Women's Health Initiative (1993-2017, averaged 15.3 years of follow up)
- Plant-based dietary pattern developed in early 2000's designed to lower LDL cholesterol → low and saturated fat and cholesterol plus 4 "portfolio" cholesterol-lowering foods → nuts, plant protein (soy & legumes), viscous fiber (oats, barley, psyllium, eggplant, okra, apples, oranges and berries), monounsaturated fats (olive, canola, avocado) and phytosterols (spread like Benecol, supplements).

Findings: *After multiple adjustments, adherence to the Portfolio Diet score associated with lower risk of total CVD, coronary heart dz and heart failure comparing the highest to lowest quartile of adherence; no association with stroke or Afib.*



This dietary pattern is consistent with an anti-inflammatory diet
Quick-Start Guide to an Anti-Inflammatory Diet: Harvard Health Newsletter

(<https://www.health.harvard.edu/staying-healthy/quick-start-guide-to-an-anti-inflammation-diet>)

Limit/avoid - "Ultra-processed" foods, which include just about anything that comes in a package – microwaveable dinners, hot dogs, chicken nuggets, dehydrated soups, baked goods, sugary cereals, processed meats, refined grains, biscuits, and sauces. Also includes soda, candy, cookies and other baked goods. Red meat (beef, pork, lamb) should be limited as well <https://www.health.harvard.edu/staying-healthy/whats-the-beef-with-red-meat>.

Eat more of - whole, unprocessed foods with no added sugar: fruits, vegetables, whole grains, legumes (beans, lentils), fish, poultry, nuts, seeds, a little bit of low-fat dairy, and olive oil.



Other food components that may help fight inflammation:

- fiber found in fruits, vegetables, and especially legumes and whole grains such as barley, oats, and bran
- omega-3 fatty acids found in fish (such as salmon, mackerel, sardines, tuna), vegetable oils (flaxseed and canola), walnuts, flaxseeds, and leafy green vegetables (spinach and kale)
- polyphenols (plant chemicals) found in berries, dark chocolate, tea, apples, citrus, onions, soybeans, and coffee
- unsaturated fats found in almonds, pecans, walnuts, flaxseeds, pumpkin and sesame seeds, and plant oils (olive, peanut, canola)



Insulin Resistance and Type 2 Diabetes

Preventing Type 2 Diabetes

- Diabetes Prevention Program (DPP) study compared diet/lifestyle intervention to treatment with metformin (27 centers, 3234 participants, 45% ethnic/racial minorities.)
 - People who lost **7% to 10% of their body weight + at least 150 minutes of moderate physical activity weekly: 58%** less likely to develop type 2 diabetes in 3 years compared to no intervention.
 - Metformin only group 31% less likely to develop diabetes as compared to **no intervention.**
- 10-yr f/u DPP Outcomes Study: participants remained 1/3 less likely to develop DM 10 years later vs. placebo group; those who developed DM delayed onset by about 4 years.

Strategies to Prevent Insulin Resistance and Type 2 Diabetes



If overweight, try to lose at 7% - 10% of your body weight on a balanced eating plan (plant-based as described).



Get 30 minutes of aerobic exercise on most days of the week for a total of at least 150 minutes per week (natural insulin sensitizer).



Do resistance training at least 2 times weekly (natural insulin sensitizer).



<https://www.niddk.nih.gov/about-niddk/research-areas/diabetes/diabetes-prevention-program-dpp>



Menopause and Bone Health



Strategies for Bone Health

- Balanced diet with adequate energy and protein (*can get Mg⁺⁺, vit C and Vit K from plant-based diet*)
- Calcium: 1,200 mg/day (limit supplements to 500 mg at one time)
- Vitamin D: 15 mcg (600 IU)/day (or more if deficient)
- Magnesium: 320 mg/day
- Vitamin K: 90 mcg/day
- Vitamin C: 75 mg/day (+35 mg for smokers)
- Regular weight-bearing physical activity
- Don't smoke

Summary:

- **A general dietary pattern that emphasizes plant over animal foods is beneficial for all these conditions (tweaked based on food preferences and supplement needs per individual circumstances)**
 - More whole fruits, vegetables, whole grains, nuts/seeds, legumes and other plant proteins to increase intake of dietary fiber (gut health) and phytonutrients while reducing caloric density
 - More plant proteins (such as soy, nuts, seeds, legumes, quinoa); seafood and poultry than red meat; limited processed meats; dairy in moderation; less ultraprocessed foods and added sugars, and limited alcohol.
 - It takes time and patience to establish sustainable lifestyle habits; registered dietitians can help; all foods can fit!
 - Physical activity is not optional for healthy aging; time to get serious about strengthening exercises.
 - It's important to accept the reality that weight is rarely something that can be micromanaged, and that healthful eating and exercise benefits health and quality of life no matter what someone weighs.

THANK YOU!