



Community Memorial
HEALTHCARE

***More Than the Scale: What
Every Woman Over 40
Should Know About
Metabolism, Inflammation
& Gut Health***

Laura Levitt, MD

lauralevittmd@gmail.com

Introduction & Background

Laura Levitt, MD
lauralevittmd@gmail.com

- Practicing Anesthesiologist for 14 years on the East & West Coast
- Fellowship Trained in Pediatric & Neuroanesthesia
- Seeing patients of various ages undergo surgeries
- Elective & emergent cases
- BMIs/chronic illnesses/outcomes
- Started asking why? And what can be done?
- Certification by the American Board of Obesity Medicine (ABOM)
- Personal interest in Longevity Medicine & Weight Loss Medicine keeps me going

Important Disclaimer

This lecture is for educational purposes only. I am a practicing physician but am not your personal physician. Content does not constitute individual medical advice, diagnosis and/or treatment. Always consult your medical professional before making any changes to your current lifestyle.



The Dreaded Scale and Weight Loss Through the Years

Very Restrictive Mentality



- Low fat
 - Low carb
 - Keto
 - Intermittent fasting
 - Macronutrient counting
-
- Cardio
 - Aerobics
 - Weight training



The Dreaded Scale and Weight Loss Through the Years

- For decades, women's health after age 40 has been reduced to a single frustrating narrative:
 - *'Eat less, move more, and accept that your body is changing.'*
- We've been taught to view changes in our bodies through a single lens — the bathroom scale
 - Very one dimensional.
- Newer ways to measure not just weight but body composition
- Modern longevity medicine tells a completely different story

What Bodily Changes Occur as We Enter Our 40s?

- This can be different for everyone +/- 10 years
- Navigating perimenopause and the transition toward menopause
- Hormonal & weight issues, osteopenia & osteoporosis, mood & sleep disturbances
- It is a fundamental remodeling of our cellular physiology

Today, We Are Moving Beyond the Scale

- We will explore three interconnected biological pillars that dictate how well and how long we live:
 - Metabolism
 - Systemic inflammation
 - Gut microbiome
- By the end of this session, you will understand the mechanism behind these shifts and leave with actionable, research-backed strategies to optimize your healthspan/vitality





Shift the Focus: From Weight to Metabolic Health

- Move away from calorie restriction and toward cellular optimization, tissue preservation, and longevity
- Stop using the scale as one data point
- Not a failure of willpower

Part 1: The Metabolic Pivot

Insulin, Muscle & Hormones

- **Estrogen as a Metabolic Regulator:** Estrogen regulates glucose disposal, lipid oxidation, and mitochondrial capacity. Millions to billions of receptors in our body (brain to toes).
- **Nutrient Partitioning & Visceral Fat:** As E2 declines, insulin sensitivity drops. Surplus glucose shifts away from skeletal muscle storage toward Visceral Adipose Tissue (VAT), an active endocrine driver of systemic cytokines (IL-6, TNF- α).
- **Often see an increase in inflammation which can tip the scales.**
- **Sarcopenia & Metabolic Sinking:** Muscle loss (3 – 8% per decade after 30) reduces the body's primary glucose sink. The metabolic slowing is driven primarily by muscle loss and some nutrient partitioning shifts, not age alone.
- **Cardiometabolic Risk Markers:** Clinical indicators of metabolic syndrome — such as elevated A1C, high BMI, and elevated Diastolic Blood Pressure (DBP).

List of Menopause Symptoms



Physical symptoms

- Hair loss
- Weight gain
- Brittle nails
- Vaginal dryness
- Sleep disorders
- Dizziness
- Incontinence
- Allergies
- Breast pain
- Headaches
- Joint pain
- Itchy skin
- Irregular periods
- Irregular heartbeat
- Osteoporosis



Psychological symptoms

- Mood swings
- Fatigue
- Depression
- Anxiety
- Irritability
- Difficulty concentrating
- Memory lapses
- Loss of libido



Vasomotor symptoms

- Changes in body odor
- Hot flashes
- Night sweats



Oral symptoms

- Burning tongue
- Gum problems



Digestive symptoms

- Bloating
- Digestive problems



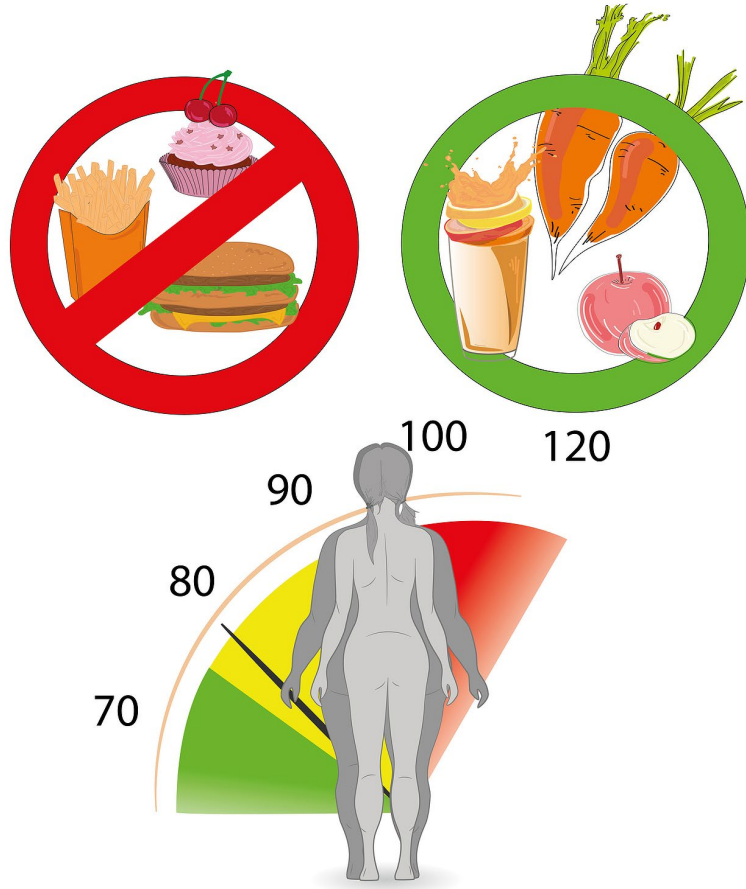
Nervous system symptoms

- Electric shock sensations
- Tingling extremities

What Can We Do About These Changes?

- Hormonal changes — can treat with hormone replacement therapy (HRT) now menopausal hormone therapy (MRT)
- Definitely get labs checked repeatedly at different times especially if having any of the symptoms
- See a professional that can help
- Different MRTs and different forms
- “Window of opportunity” to start MRT usually before age 60 or within 10 years of the final menstrual cycle
- Treatment needs to be individualized
- MRT helps preserve bone density, improves sleep, GU symptoms, libido
- Can improve quality of life and should be a shared decision-making process

Weight Loss



- This isn't just lack of willpower
- Goal is to improve body composition especially visceral fat
- Nutritional changes
 - Fiber
 - prioritize protein (1.2 – 1.6g/kg)
 - avoid ultra processed foods
 - eat anti-inflammatory and whole food diet
- Strength/resistance training regularly
 - 2 – 4x/week
 - progressive overload
 - use major muscle groups
- Add in cardio but don't rely on this alone
- GLP1s +/- watch for sarcopenia

Exercise Prescription

150

Minutes / Week
Moderate Aerobic Activity

Core Training Pillars for Longevity



Resistance Training ($\geq 2\times/\text{week}$): 2–3 sets targeting major muscle groups at 50–80% 1-rep max. Improves insulin sensitivity, blood pressure, and bone density.



Aerobic Base: 150 mins moderate or 75 mins vigorous. Moving from completely sedentary to active yields the single largest health gain.



Balance & Fall Prevention ($\geq 2\times/\text{week}$): Single-leg stands, tai chi, and narrow stance work to preserve neuromuscular control.



Task-Specific Function: Squats, lunges, stairs, and loaded carries to protect real-world physical autonomy.

Exercise Changes the Way We Age

Aging Without Training



Aging With Training

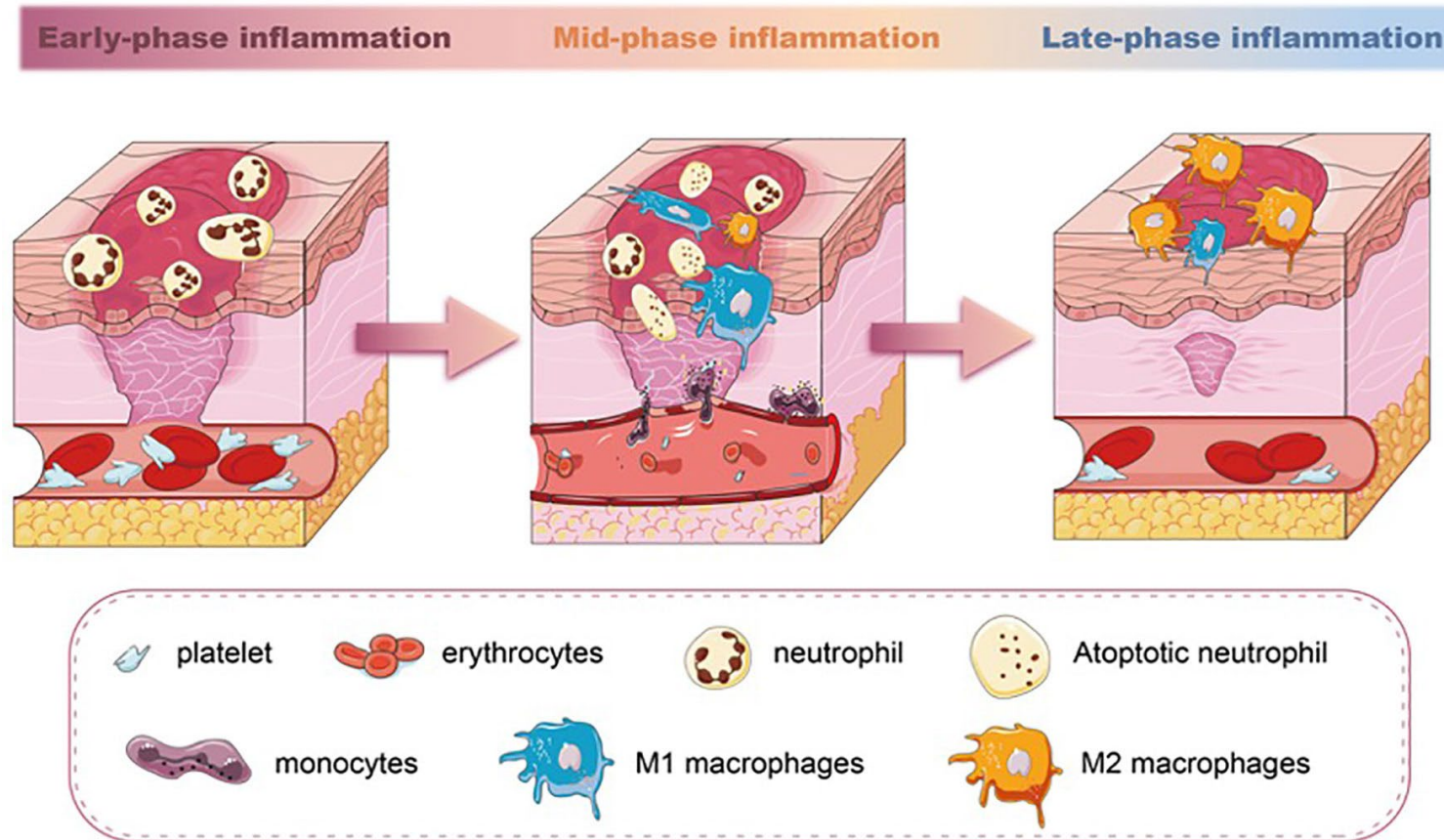


Treatment of Cardiometabolic Markers

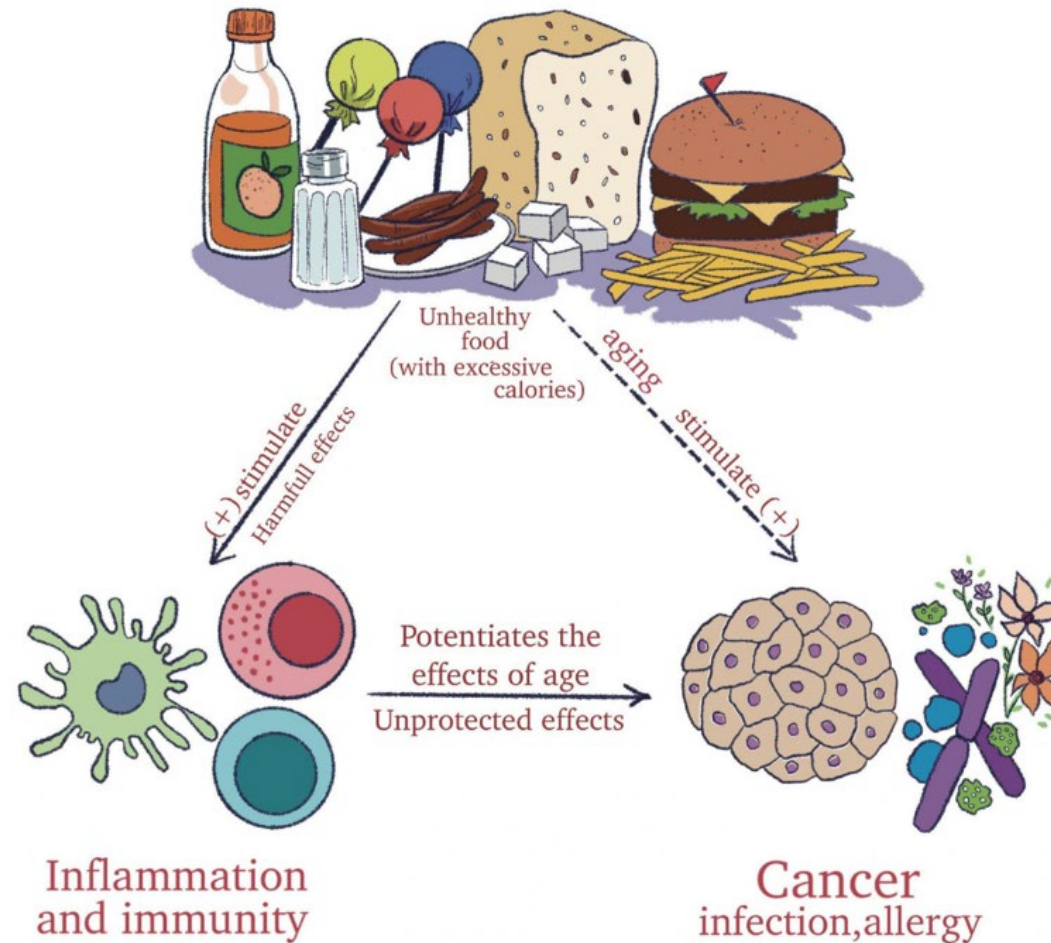
- OSA — weight loss, CPAP
- Insulin resistance — dietary changes, weight loss, +/- medications
- Lipids — medications, the DASH or Mediterranean diet, movement, stop smoking!

Part 2: Inflammation

"Inflammaging" — The Silent Driver of Biological Age



What is Healthy Nutrition?



Inflammation Doesn't Stay in One Place

- **The Midlife Triad:** The scales of inflammation are tipped — Chronic stress (cortisol elevation) + loss of estrogen's anti-inflammatory protection + metabolic dysfunction = chronic low-grade systemic inflammation.
- **Multiorgan Impact:** Chronic inflammation damages key organ systems — including neuroinflammation in the brain, endothelial strain in the heart, and barrier breakdown in the gut. 1 in 3 women die from CV disease.
- **Extracellular Vesicles & Gut Signaling:** Exosomes originating from an aging, dysbiotic gut carry molecular signals across distant organs, accelerating tissue aging and systemic insulin resistance.
- **Mitochondrial Fatigue:** Decreased estrogen compromises mitochondrial oxygen consumption, elevating Reactive Oxygen Species (ROS) production and cellular fatigue.
- BOTTOM LINE — CHRONIC INFLAMMATION IS BAD

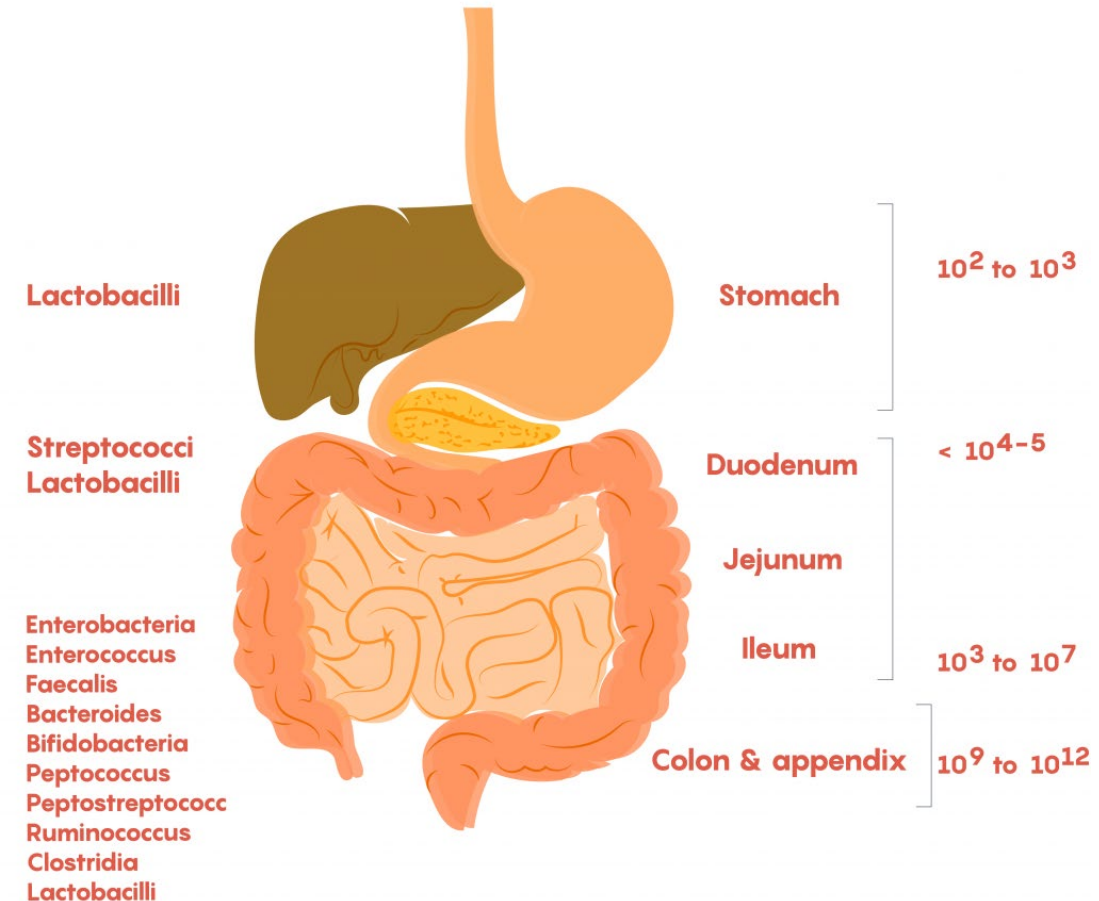
Part 3: The Gut Microbiome

What is the Gut Microbiome and Why is it Important?

- Trillions of microorganisms — bacteria.
- A healthy one is essential for good health — digestion, immune system, metabolism, heart health, brain health and hormones.
- Obesity, antibiotics, cancer, leaky gut link to estrogen breakdown.
- Processed foods lead to gut dysbiosis.
- Declining E2 compromises barrier integrity, allowing lipopolysaccharides (LPS) to enter circulation and trigger systemic inflammation.

Intestinal Microflora

10^{14} microorganisms, >500 species



How To Support The Gut Microbiome

- Aim to eat 30 plants per week
- Avoid processed foods
- Get enough fiber & protein
- Include fermented foods
- Exercise regularly
- Avoid unnecessary antibiotics
- Sleep well and manage stress
- No strong evidence for probiotics minus antibiotics
- GLPs affect this with dysmotility

Part 4 & Conclusion

Translating Science Into Practice

- Get your protein & fiber
- Optimize lipid health and use Omega 3 to a lower Omega 6 ratio
- Resistance training
- Zone 2 cardio
- Circadian cues
- Sleep
- Decrease stress
- Community

Make all these small but consistent changes and they will add up help counteract the changes after 40, decrease chronic inflammation, and provide healthy gut flora.



Dr. Art Ulene

Climbed Mount Kilimanjaro for his
90th Birthday

This is a powerful reminder of what the human body can achieve when we fuel, protect, and honor our cellular engine.

Courtesy of Care Scout



Dr. Art Ulene

"I want to be in perfect health until the day I die. When I die, I want them saying, 'What did he die of? He looked great yesterday!'"

Courtesy of CareScout



*Find your own mountain.
Wishing you all a long, fruitful,
and vibrant health span.*

THANK YOU

Laua Levitt, MD

