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Hormones!

Everything You Ever Wanted To Know But Didn't Realize How They "Lean" On Nutrition & Biomes

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People want to be younger longer

But stay safe

Be on hormones or have balanced hormones

And not get breast cancer

Estrogen's time has come

But women will want to know how to take it safely

And doctors will want to know how to achieve this, too.

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Hormones

Hormone health is about “receptor health”

Or “receptor functionality”

We live in a polluted world with endocrine disrupting compounds in our air, food and water

So more hormonal issues

Younger and younger

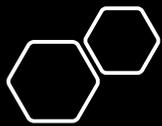
So keeping hormones, receptors healthy, to keep humans healthy is the next frontier.

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Hope

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Everyone
Wants to Be
Younger
Longer

- But all afraid of hormones
- Afraid of breast cancer
- That's about to burst open
- So how to keep hormones safe
- Endogenous
- And with BHRT

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Hormones – Brain

Researchers Take a Step Toward Advancing Precision Hormone Therapies to Reduce Alzheimer's Risk

The University of Arizona Health Sciences

Pin Alzheimer's & Dementia: Translational Research & Clinical Interventions,

400,000 women insurance history

Found that women who underwent menopausal hormone therapy for six years or greater were 79% less likely to develop Alzheimer's and 77% less likely to develop any neurodegenerative disease.

And best protection was with "natural steroids or BHRT" so do not listen to inaccurate criticisms.

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ECD's

Threaten mankind's fertility

Milestones of Reproduction

Higher executive functioning especially parenting

Oxytocin and community and family bondedness

Let along Type 2 D, cancers, cognitive decline and more.

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Three Major Threats to Humanity



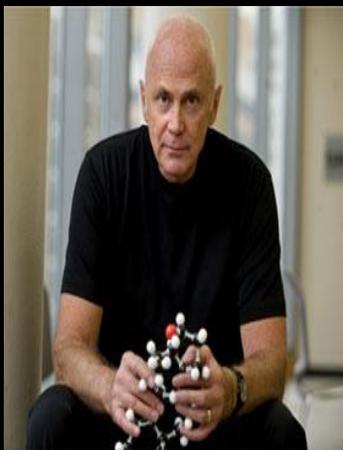
<https://theforum.sph.harvard.edu/events/hormone-altering-chemicals/>

1. Nuclear War
2. Global Warming
3. EDC's



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Hormone Scholar at Estrogen Think Tank Tulane (Center for Bioenvironmental Research)



John McLachlan, Ph.D.
Weatherhead Distinguished Professor of Environmental Studies



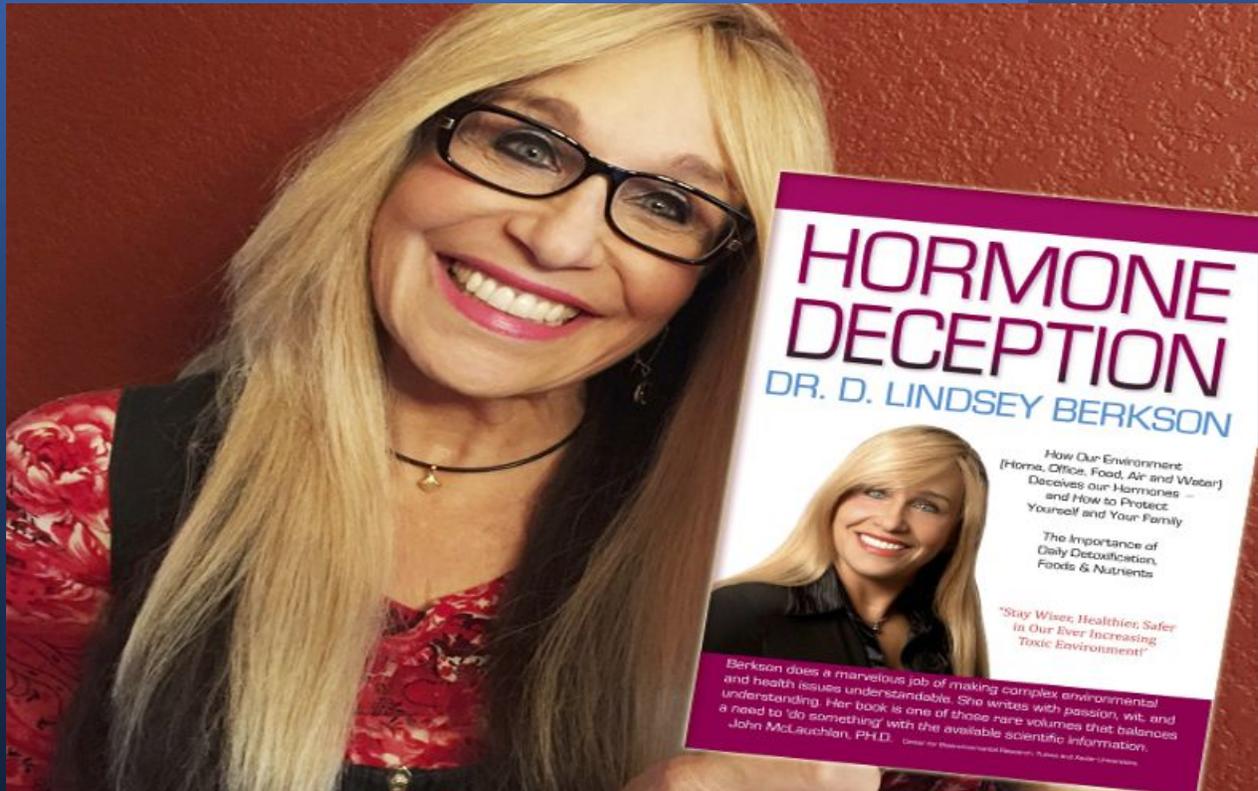
e.hormone.tulane.edu

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CBR Family



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Ellwood Jensen PhD Discovered 1st estrogen receptor.
Breast cancer profiling based on his work.

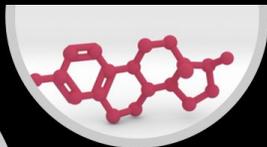


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**Jan Ake Gufftasso PhD discovered ERbeta Karolinska
Institute – Sweden (Berkson & Jan Ake at e.hormone
conference 2009)**



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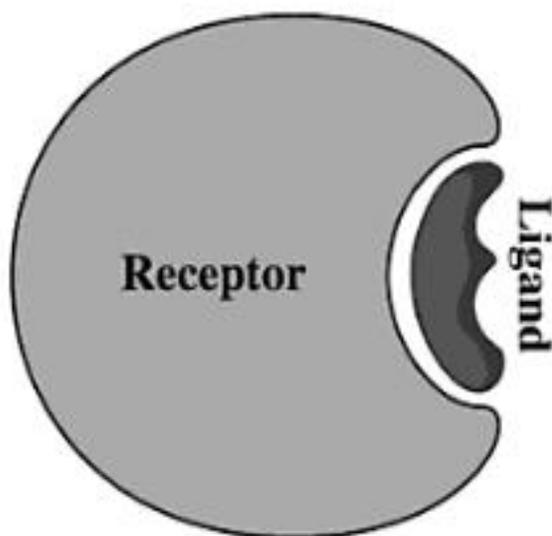
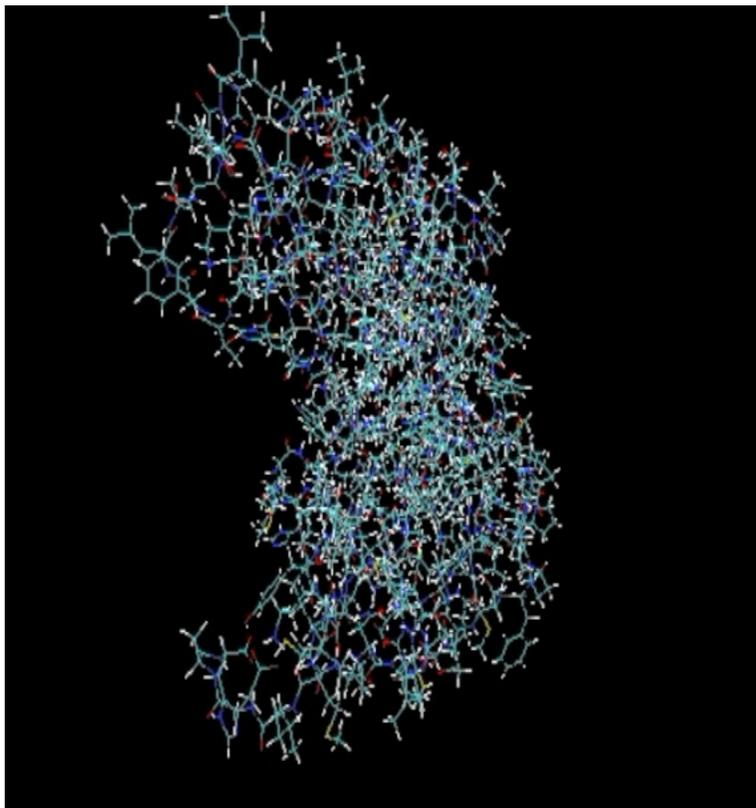
**Estrogen Vindication
ICIM Memphis 2020**

A blue banner for the International College of Integrative Medicine (ICIM). It features the ICIM logo (a globe with 'ICIM' text) on the left. To the right, the text reads 'International College of Integrative Medicine' and 'Translating Science to Clinical Practice Since 1984'. Below this is a navigation menu with links: 'About Us', 'Integrative Medicine', 'Find a Practitioner', 'Get Involved', 'Member Resources', and 'Chelation Therapy'. Social media icons for Facebook, YouTube, Instagram, Twitter, and LinkedIn are in the top right corner.

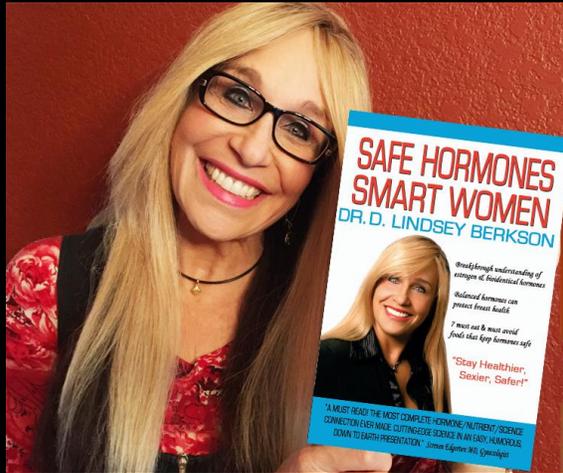
**Crack in the
Consciousness of
Endocrinology**



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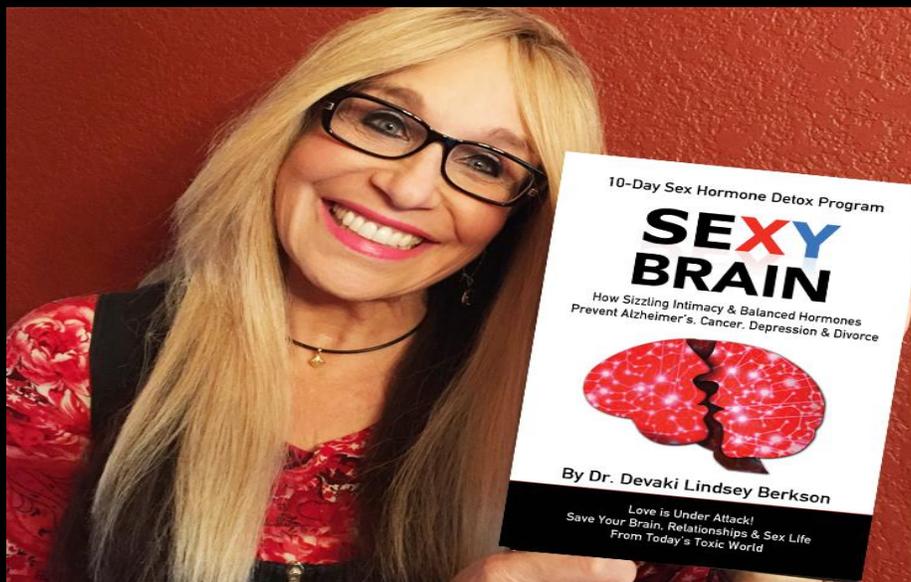
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Safe Hormones, Smart Women

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Why You Want A Sexy Brain!



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Science on hormones is changing and med schools haven't kept



- Abraham Morgentaler, MD
- Associate Professor of Urology Harvard

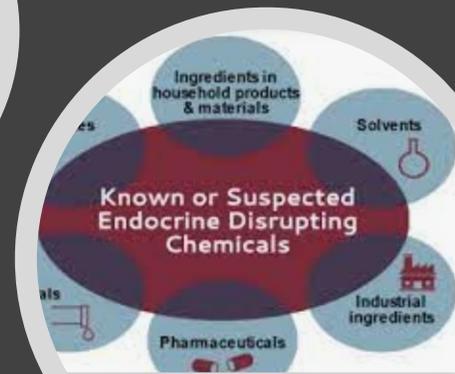
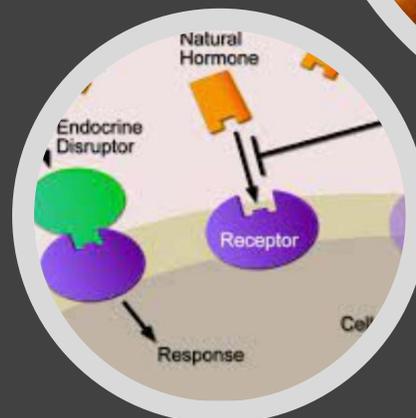
“Nearly everything we learned about T and PCa turned out to be wrong!”

- Same with females.

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Ill planet = Ill hormones

- Need to redefine hormones
- In light of today's toxic world
- Need ways to keep hormone signals healthy just as we are learning hormones are the most powerful signaling molecules we have



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Estrogen



HORMONES AND RISK OF CORONAVIRUS INFECTION (COVID-19)



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- Protects mitochondria from damage
- Activates T and B cells as well as Treg cells
- Numerous Covid studies on hormones giving progesterone to males
- And figuring out why women have lower incidence of cases as well as lower fatality rates.
- Women half the fatalities as men.
- Evidence for treatment with estradiol for women with SARS-CoV-2 infection. *BMC Med* 18, 369 (2020). <https://doi.org/10.1186/s12916-020-01851-z>

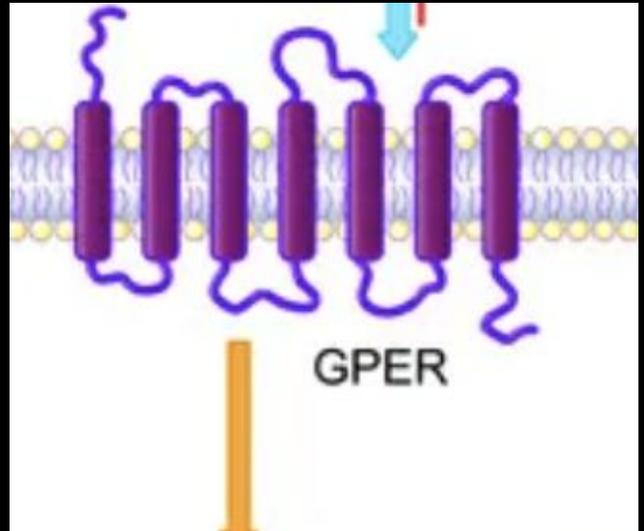
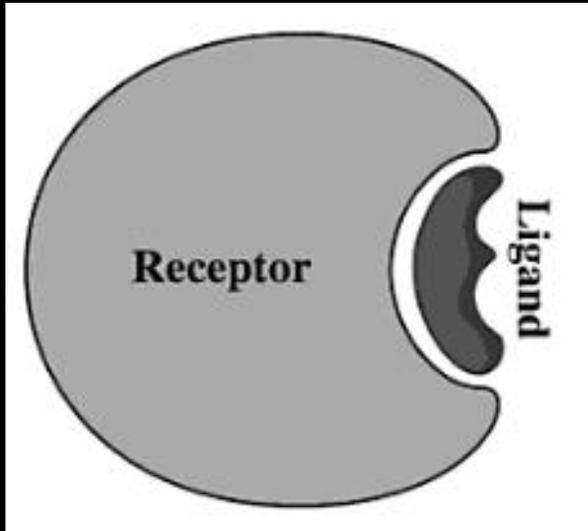
The bigger picture of hormones

- Hormone levels (blood, 24-hr. urine, saliva) just the starting point
- Receptor Functionality
- Based on present nutrients
- And absence of competitive inhibitors



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Genomic & Non-genomic Signaling



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Redefining Hormones – Receptor Functionality

RECOMMENDATION: Two (2) capsules, two (2) times per day with food as a dietary supplement or as otherwise directed by a healthcare professional.

CAUTION: Not recommended for children, pregnant or lactating women.

Product # 0000 Rev. 06/20

Receptor Daily Detox

DIETARY SUPPLEMENT

BIOTICS RESEARCH®

Supplement Facts

Serving Size: 2 Capsules
Servings Per Container: 60

	Amount Per Serving	% Daily Value
Vitamin B6 (as pyridoxal-5-phosphate)	5 mg	294%
Iodine (as potassium iodide)	1.5 mg	1,000%
Magnesium (as magnesium glycinate)	5 mg	<2%
Zinc (as zinc citrate)	2.5 mg	23%
Selenium (from vegetable culture)	50 mcg	91%
Proprietary Blend	710 mg	
Cilantro (Coriandrum sativum)(seed)(extract)*, Parsley (Petroselinum crispum) (leaf)(extract)*, Chlorella (cracked cell wall)*, Dandelion (Taraxacum officinale)(root) (extract)*, Milk thistle (Silybum marianum)(root & aerial part)(extract)*		

*Daily Value not established

Other ingredients: Vegetarian capsule shell (cellulose and water) and stearic acid (vegetable source).

This product is gluten and dairy free.

Please Recycle

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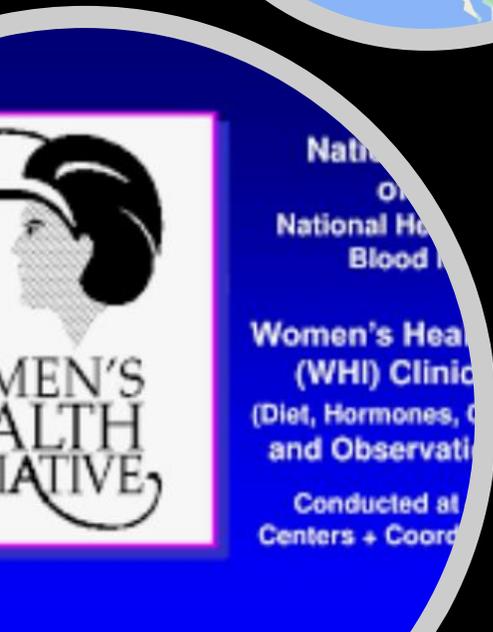
ESTROGEN Decades through 60s, 70s, 80s, Till July 2002 WHI



Estrogen Causes Breast Cancer

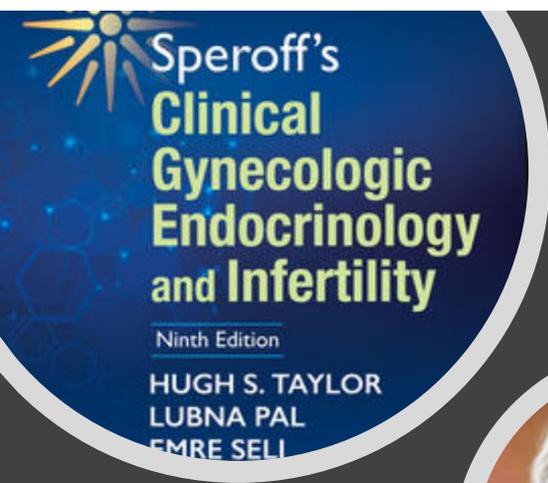


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Vs. Europe
USA

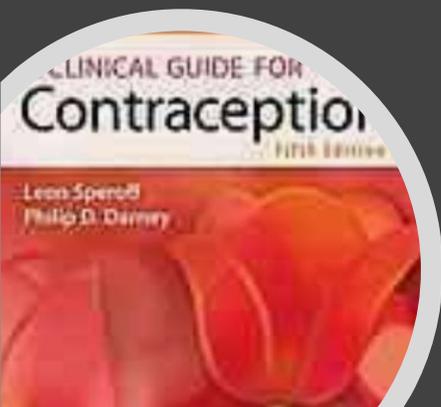
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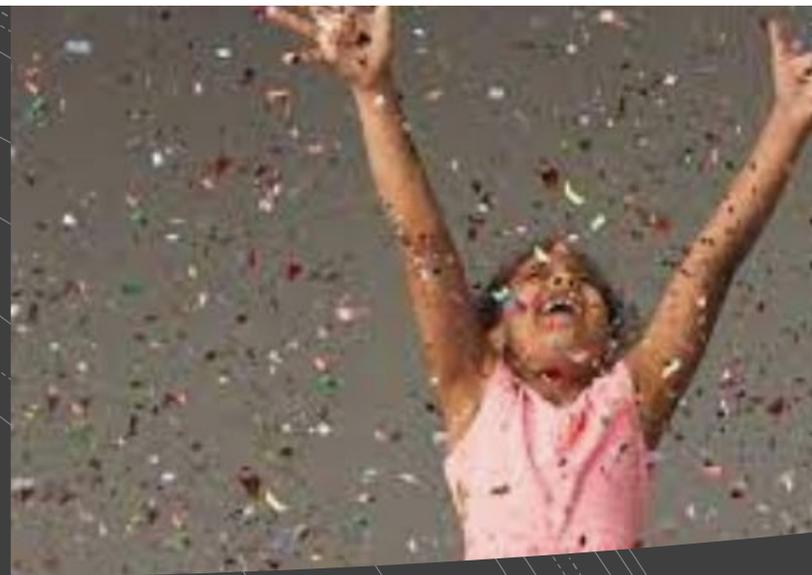
Championed past clinical outcomes



- Wrote multiple studies urging physicians to not let a singular randomized trial
- Stop what decades of clinical outcomes had shown.



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December 2019 – San Antonio yearly breast cancer symposium

• All changed

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Estrogen Vindication

- Dr. Rowan T. Chlebowski

'Remarkable' New Data on Menopausal Hormone Therapy

- San Antonio Breast Cancer Symposium 2019: [Abstract GS5-00](#). Presented December 13, 2019.
- Medscape Medical Oncology, Dec.13, 2019 by Megan Brooks

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Women's Health Initiative

- Funded by the NIH
- From 1993 to 1998, more than 27,000 postmenopausal women aged 50 to 79 years with no prior breast cancer enrolled in one of two randomized, placebo-controlled WHI trials implemented at 40 US centers, with follow-up through September 2016 and published in December 2019.
- Women with an **intact uterus received CEE** (0.625 mg/day) plus MPA (2.5 mg/day) or placebo (n = 8102)
- For a median of 5.6 years.
- Women with **prior hysterectomy received CEE alone** (n = 5310) or placebo (n = 5429) for a median of 7.2 years.

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Stopped Prematurely

- Increased risk of breast cancer
- Increased risk of clots
- Within months re-analysis shows "statistical fiasco"
- Methodology found to be fatally flawed
- *Safe Hormones, Smart Women*



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2018 – Re-analysis of the basic methodology of WHI

- Part of the "false" increased risk in the hormone arms, were the "lower than expected risks in the control group",
- Which came from inappropriately including in the placebo group, women who had already taken estrogen prior to getting into the study and were randomly assigned to the placebo arm.
- When the risk was recalculated after these women were excluded, the increased risk observed among those randomly assigned to combination hormone replacement therapy had disappeared.
- **What we are learning is that any HRT post menopause, is protective, whether synthetic, bioidentical, or given for a few months to a few years.**

Hodis HN, Sarrel PM: Menopausal hormone therapy and breast cancer: What is the evidence from randomized trials? *Climacteric* 21:521-528, 2018.

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2019 – 19-year WHI re-analysis

After 19 years of follow-up:

- **ESTROGEN ONLY:** CEE (Premarin – conjugated equine estrogens) **alone resulted in a significant 23% reduction in breast cancer incidence** (hazard ratio [HR], 0.77; $P = .005$),
- **ESTROGEN + PROGESTINS:** CEE+MPA (horse estrogen plus medroxyprogesterone acetate) **resulted in a significant 29% increased risk of breast cancer** (HR, 1.29; $P < .001$).

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19-yr. Re-analysis – Estrogen Protects AGAINST breast cancer

- Case incidence
- Whereas CEE alone resulted in a *significant 23% reduction* in breast cancer incidence.
- After about 19 years of follow-up,

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Charles L. Shapiro, MD, professor of medicine, hematology and medical oncology, Icahn School of Medicine at Mount Sinai in New York City, said,

“It’s clear that the risk — “both positive and negative” — continues beyond using hormone therapy for at least 10 years.”

•Medscape Medical Oncology Dec. 13; 2019

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19-year Re-analysis

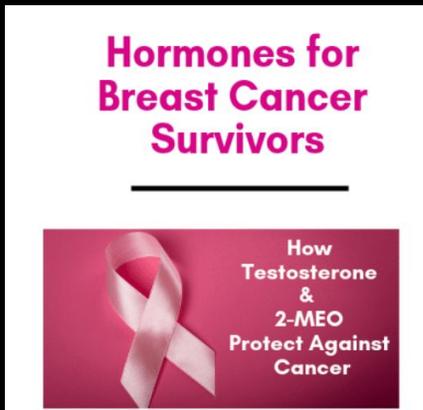
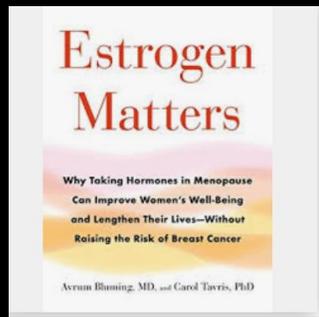
- Dr. Chlebowski pointed out that “none of the approved agents for breast cancer risk reduction . . . have been able to demonstrate a reduction in deaths from breast cancer . . . so this is a very unique finding.
- **“Women should be reassured if they had short-term estrogen exposure they are not at increased risk. In fact, the data suggest there is decreased risk.”**
- *2019 SABCS Abstracts Home GS5-00.* Long-term influence of estrogen plus progestin and estrogen alone use on breast cancer incidence: The Women’s Health Initiative randomized trials.

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Estrogen Vindicated
eBook (Updated May
2020)

\$19.99



Estrogen (& T) Vindicated

- Hormones
- Re-defined!

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19-yr. Re-analysis WHI - Who is saying this besides Dr. Chlebowski?

The following esteemed institutions agreed with these findings and put their names on them!

- The Los Angeles BioMedical Research Institute at Harbor-UCLA Medical Center, Torrance, CA;
- Fred Hutchinson Cancer Research Center, Seattle, WA;
- Brigham and Women's Hospital, Boston, MA;
- Stanford Prevention Research Center, Stanford, CA;
- University of Washington, Seattle, WA;
- Pitt Public Health, Pittsburgh, PA;
- Karmanos Cancer Institute, Detroit, MI;
- Stony Brook University, Stony Brook, NY;
- University of Tennessee Health Science Center, Memphis, TN;
- Albert Einstein Cancer Center, Bronx, NY;
- The Ohio State University, Columbus, OH, and
- The UF Health Internal Medicine, Gainesville, FL
- 2019 *SABCS Abstracts Home* GS5-00. Long-term influence of estrogen plus progestin and estrogen alone use on breast cancer incidence: The Women's Health Initiative randomized trials.

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No headlines news

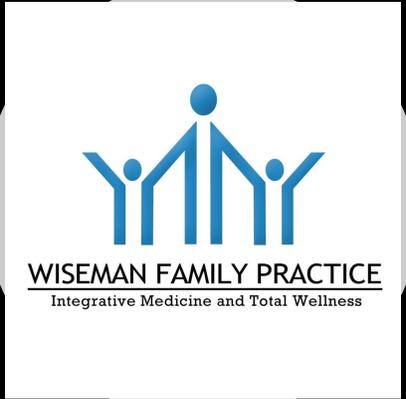
- Nothing on the news
- Most doctors don't know about this
- Most women don't know about this
- Fear scares
- Fear makes headline news
- Facts – especially positive – don't.

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Standard of Care

- Is not reflecting the appropriate data
 - For women without breast cancer
 - For women with breast cancer
 - When this gets out to the public, practitioners that know how to keep hormones healthy, the science behind efficacy & safety, receptor functionality, you will be sought after.
-
- Proc ASCO 2006124L10012. Case-control study of hormone replacement therapy (HRT) and breast cancer in Japanese women.
 - [Avrum Bluming MD](#), [Carol Tavriss PhD](#). Estrogen Matters: Why Taking Hormones in Menopause Can Improve Women's Well-Being and Lengthen Their Lives -- Without Raising the Risk of Breast Cancer 1st Edition. Hachett Book Group 2018.

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Worked with Medical Teams Most of my 47-year career;
1st multi-disciplinary practice in US Center for Orthomolecular Medicine
Palo Alto CA

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Why All This Matters! Female Life Expectancy

WOMEN'S HEALTH INITIATIVE

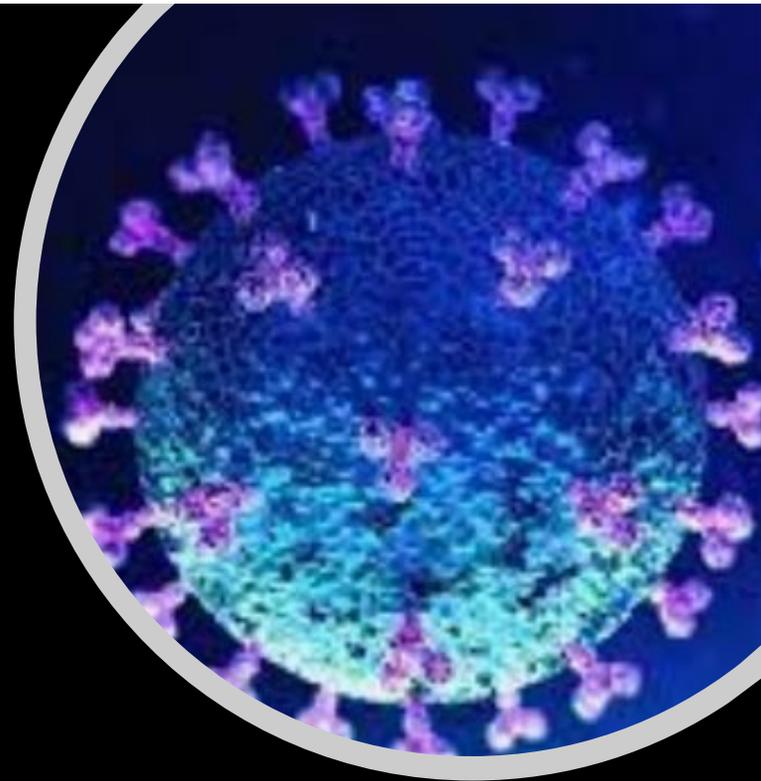
- Women's life expectancy nearly doubled in 100 yrs.
- 25 million women a year go through menopause.
- The total female population exceeds the total male population since 2015 and maximize up to 2030. I
- **n 2030, nearly half of female will become postmenopausal and one fourth of women elderly will be geripausal.**
- **Of total female population in 2060, the proportion of postmenopausal women will be increased up to 59.8%.**
- Geripause – menopause after the age of 65.
- Most disease processes begin after hormonal systems have shut down.
- From thinning skin, weight gain to cognitive decline.
- **Cache County studies – estrogen protects the brain.**
- **WHI re-analysis. Estrogen protects “against” breast cancer.**
- **Science deep dive: Testosterone protects against prostate cancer.**

Lifetime estrogen exposure and cognition in late life: the Cache County Study. Menopause. 2019 Dec;26(12):1366-1374. doi: 10.1097/GME.0000000000001405. PMID: 31613825; PMCID: PMC7448538.

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Immunity –

- This mini-review discusses the immunomodulatory and anti-inflammatory actions of high physiological concentrations of the steroids 17 β -estradiol (E2) and progesterone (P4).
- We review how **E2 and P4 favor a state of decreased innate immune inflammatory response while enhancing immune tolerance and antibody production.**
- We discuss how the combination of E2 and P4 may improve the immune dysregulation that leads to the COVID-19 cytokine storm.
- Estradiol, Progesterone, Immunomodulation, and COVID-19 Outcomes. *Endocrinology*. 2020 Sep 1;161(9):bqaa127. doi: 10.1210/endo/bqaa127. PMID: 32730568; PMCID: PMC7438701.



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Estrogen is in the news

- Results: The incidence of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection is higher in women than men (by about + 15%) and, in contrast, **the fatality rate is higher in men (about + 50%).**
- Linked to age: pre-adolescent girls and boys had the same risk of infection and fatality rate, while adult premenopausal women had a significantly higher risk of infection than men in the same 5-year age stratum (about 16,000 vs. 12,000 cases).
- This ratio changed again in peri- and postmenopausal women, with infection susceptibility converging with men.
- While fatality rates increased continuously with age for both sexes, **at 50 years, there was a steeper increase for men.**
- 17 β -estradiol influences expression of the human angiotensin-converting enzyme 2 (ACE2) protein, which plays a role in SARS-CoV-2 cellular entry.
- **This retrospective study of hormone therapy in female COVID-19 patients shows that the fatality risk for women > 50 years receiving estradiol therapy (user group) is reduced by more than 50%.**
- For younger, pre-menopausal women (15–49 years), the risk of COVID-19 fatality is the same irrespective of estradiol treatment, probably because of higher endogenous estradiol levels.
- Conclusions: As of this writing, still no effective drug treatment is available for COVID-19; **since estradiol shows such a strong improvement regarding fatality in COVID-19,** we suggest prospective studies on the potentially more broadly protective roles of this naturally occurring hormone.
- Evidence for treatment with estradiol for women with SARS-CoV-2 infection. *BMC Med* 18, 369 (2020). <https://doi.org/10.1186/s12916-020-01851-z>

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Progesterone

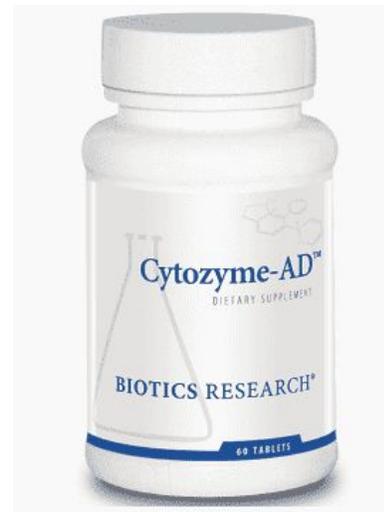
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- Cedars-Sinai 40 male patients exp vs placebo
- 100 mg IM BID 5 days to males hospitalized
- **Progesterone in Addition to Standard of Care Versus Standard of Care Alone in the Treatment of Men Hosp**
- **Hospitalized with Moderate to Severe COVID-19: A Randomized, Controlled Pilot Trial.** *Chest*, 2021; DOI: [10.1016/j.chest.2021.02.034](https://doi.org/10.1016/j.chest.2021.02.034)
- Chest 2021 Feb 20;S0012-3692(21)00289-0. **Progesterone in Addition to Standard of Care vs Standard of Care Alone in the Treatment of Men Hospitalized With Moderate to Severe COVID-19: A Randomized, Controlled Pilot Trial**

Knowledge is Power



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This Seminar

- To make visible this growing critical niche in health care
- To give a bigger picture of the need more than ever with hormone altering chemicals
- To give the bigger picture of hormones not just levels by any assay
- That you can address this need and have a robust practice if you have this bigger picture of hormones

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Hormone Wars



TherapeuticsMD Inc

- Compoundability legal rights
- Bjuva (Replenish)

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The Growing Need: Life Expectancy

- We are living longer but more ill.
- Significant observed low testosterone (T) epidemic in young males.
- Younger people are having hormonal issues normally seen in older populations.
- PCOS – menopause-like pro-inflammatory condition but in younger women. (4 to 10%)

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Low T epidemic

The goal of this study was to establish the magnitude of population-level changes in serum T concentrations and the degree to which they are explained by secular changes in relative weight and other factors.

We describe a prospective cohort study of health and endocrine functioning in randomly selected men of age 45-79 yr. We provide three data collection waves: baseline (T1: 1987-1999) and two follow-ups (T2: 1995-1997, T3: 2002-2004).

This was an observational study of randomly selected men residing in greater Boston, Massachusetts.

Data obtained from 1374, 906, and 489 men at T1, T2, and T3, respectively, totaling 2769 observations taken on 1532 men.

The main outcome measures were serum total T and calculated bioavailable T.

- We observe a substantial age-independent decline in T that does not appear to be attributable to observed changes in explanatory factors, including health and lifestyle characteristics such as smoking and obesity .

These results indicate that recent years have seen a substantial, and as yet unrecognized, age-independent population-level decrease in T in American men, potentially attributable to birth cohort differences or to health or environmental effects not captured in observed data.

[J Clin Endocrinol Metab.](#) 2007 Jan;92(1):196-202. A population-level decline in serum testosterone levels in American men. New England Research Institute. A population-level decline in serum testosterone levels in American men.



T Naturally!



Supplement Facts

Serving Size: 1 Capsule

	Amount Per Serving	% Daily Value
Peruvian Maca (<i>Lepidium meyenii</i>) (root)	750 mg	*
Velvet Deer Antler (from living Elk)	50 mg	*

*Daily Value not established

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Menopause

- 1.2 billion in world by 2030
- **Women used to die at this age, this is how our body's are programmed so we must look at ways to deal with slow down programmed cellular aging.**
- **North American women spend 1/3 to 1/2 lifespan in post-menopause.**
- Great confusion in hormone therapies and you can be a specialist in this arena.
- Even as a non-gynecologist as they are not taught much about hormones that you will learn in this unique science-based program today!



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Milestones of Reproduction

- Menarche, perimenopause, menopause
- All changing due to hormone altering chemicals, obesity, stress, medical exposures, antibiotics
- When occur earlier, more problems and higher health risks across the life of that individual throughout adulthood
- More exposures in-utero leading to hormonal issues younger in life
- You can have a specialist niche in identifying and addressing these issues

What's Normal

- Menarche 12 to 15 years but happening earlier
- Perimenopause 10 years before menopause but happening earlier (sometimes in later 20s)
- Menopause – one year after final menstruation but happening earlier
- Permanent cessation of menses from loss of ovarian follicular function, usually due to aging for one year from last period
- Average age in US is 51
- Premature to this average age usually before 45 years of age
 - ✓ Medical bilateral oophorectomy
 - ✓ Chemo especially pelvic radiation
 - ✓ Aromatase inhibitors
 - ✓ Smokers
- Can occur at any age from impaired ovarian function from above or disease or hormone altering chemicals
- Before 40 premature ovarian failure and need an in-depth work up usually by an endocrinologist even a gynecologist might not be in-depth enough