

Welcome to The Hormone Cure Instructor's Manual™

I want to honor you for making a powerful commitment to your own health, hormones, and to serving women who struggle with hormonal issues. We're so happy you're here with us in our practitioner training, Teach the Hormone Cure. As many of you know, I have an audacious goal to help one million women reset their hormones naturally, and quite frankly, it takes a village – but not just any village, a village of like-minded and courageous practitioners such as yourself.

We are always working to improve Teach the Hormone Cure, and we'd love your support and feedback. For our next launch, we will be raising the price and including an Instructor's Manual. We are sending to you the first draft of the Manual in several parts.

May I Request the Favor of Your Feedback?

I'd like to share with you the outline for the Hormone Cure Instructor's Manual[™] – and I'm including it for you with the hope that it makes your task easier of learning the material, and I have a favor to ask in return.

We need your feedback. What works? What doesn't? What do you want more of? Less of? Are there additional resources that would improve your understanding. Please provide your feedback at www.SaraGottfriedMD.com/InstructorFeedback. Thank you!

How to Use Your Hormone Cure Instructor's Manual™

Consider the Hormone Cure Instructor's Manual™ to be a multi-media book that supports your training in Teach the Hormone Cure. We've divided the content of the Instructor's Manual into the following framework for the chapters that I feel would most benefit you and your deeper inquiry (note that some chapters simply include summary points).

- Summary points
- Questions to ask your students/quiz
- Case study (when appropriate)
- Additional resources

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The names and details of some individuals have been changed to protect their privacy.

Whew! Now that the legal disclaimers are out of the way, I want to thank you again for partnering with me to change the conversation for women about hormones and health! Soon you will join the coveted ranks of practitioners who've been trained in The Hormone Cure. I believe in you and am here on the path alongside you, ready to hold your hand and support your deepening commitment to health and service.

To your best health,



Dr. Sara Gottfried MD

PART I.

EDUCATE AND ILLUMINATE: UNDERSTANDING THE NEW HORMONAL LANDSCAPE

Introduction Why Hormones Matter

Chapter 1 Getting Started: Fill Out the Questionnaires

Chapter 2 A Hormonal Primer: Everything You Need to

Know About Hormones

Chapter 3 Perimenopause: Your Own

Personal Global Warming Crisis, Hypervigilance, and Tighter Jeans



SUMMARY POINTS:

Principles of Hormone Balancing

- Recognize the inherent wisdom of the body. Nature, as it applies to the control of hormone metabolism, prefers equilibrium.
- Identify the root cause rather than masking symptoms.
- Be systems oriented. Work with the control system, which is the HPATG: Hypothalamic-Pituitary-Adrenal-Thyroid-Gonadal axis (where gonads refer to the ovaries in women, and testes in men). When you work with the control system, and unlock the adrenals first, you don't need to replace every hormone that is low.
- Do no harm a basic tenet of Hippocrates, the father of medicine. That means that you recommend treatments that are either proven with best evidence (well designed, randomized trials) or are incredibly safe (i.e., meditation, yoga).



• Be a collaborative partner – with your practitioner (and for practitioners, with your clients or patients).

The Gottfried Protocol

A 3-step, progressive and proven approach to natural hormone balancing that applies the functional medicine paradigm:

- Step 1 is to fill nutrient gaps and make targeted lifestyle tweaks
- Step 2 is to take proven botanicals
- **Step 3** is to offer or suggest bioidentical hormones, but at the lowest doses and for the shortest duration.

Additional Resources:

• See slide sets that are released with Week 1 of Teach the Hormone Cure for slides on The Gottfried Protocol.

Chapter 1. Getting Started: Fill Out the Questionnaires

SUMMARY POINTS:

You have many options for how to assess your clients' hormone problems:

- Have them take an online quiz use this one or make your own. http://thehormonecurebook.com/quiz/. (FYI - it cost me about \$20,000 to set up and maintain this quiz, so keep that in mind with your planning for your business. We DO NOT allow you to give out the quiz without collecting an opt in.)
- In *The Hormone Cure*, refer people to the **questionnaires on pages 24-31**, or simply read the questions on Skype or in your digital courses or workshops. You can also create a checklist that you provide to clients in advance or at workshops.
- Laboratory testing see Appendix for direct-to-consumer labs that I recommend such as those listed below. Some direct-to-consumer labs allow you to set up an affiliate link I don't do this currently but it's something for you to consider under the advisement of your attorney. Here are some labs:
 - http://www.canaryclub.org/
 - https://www.mymedlab.com/
 - Another lab that I like since completing the book is http://www.wellnessfx.com/



Chapter 2. A Hormonal Primer: Everything You Need to Know About Hormones

SUMMARY POINTS:

The Cortisol, Thyroid, and Estrogen Team

- I distilled most hormone problems that women face down to issues with estrogen, thyroid, and cortisol. I call them the "Hormonal Charlie's Angels."
- Inherent in these three hormones are the more nuanced balance between:
 - > Estrogen and its counterpart, progesterone
 - > Cortisol, and testosterone women with high cortisol tend to have a problem with dysregulated androgens, such as DHEA and testosterone.
- Job descriptions are shown in Figure 1 (p44).

The Hormonal Tree of Sex Hormones: Cortisol is the Priority

- Keep in mind that cortisol is the boss and at the top of the hierarchy, because cortisol levels are the top priority you will sacrifice production of thyroid and sex hormones (estrogen, progesterone, androgens) if you have dysregulated cortisol, as indicated in Figure 2 (p46). Another term for this is **pregnenolene steal** or cortisol steal that is, under normal circumstances, pregnenolone (the mother hormone, made from cholesterol) is converted into progesterone (left turn in Figure 2) or DHEA (right turn). When you have high perceived stress, you make more cortisol—it gets stolen from pregnenolone and other hormones levels are likely to drop. That's why navigating stress is so crucial to natural hormone balance. Understanding this concept will advance your understanding past 90% of mainstream physicians, so please make sure you understand this point. (Read p45-46 for further explanation in lay terms.)
- Wondering what makes a sex hormone? Hormones listed in Figure 2 are referred to as sex steroid hormones because they are derived from cholesterol's characteristic chemical structure and influence your sex organs (note that other hormones, such as thyroid and insulin, are not **sex steroid hormones** and are produced elsewhere).
- Meet the hormone families. Further subclassification or families of hormones that you may encounter include the following.

- > Progesterone is part of the *mineralcorticoid* family (affects salt— mineral—and water balance in the body)
- > Cortisol is a member of the **glucocorticoid family** (glucose + cortex + steroid; made in the cortex of the adrenal glands, binds the glucocorticoid receptor, and raises glucose, among other tasks).
- > Testosterone is a member of the **androgen family** (made by men and women; responsible for hair growth, confidence, and sex drive)
- > Estrogens: estradiol, estriol, and estrone are members of the **estrogen family** (sex steroid hormones produced primarily in the ovaries to promote female characteristics such as breast growth and menstruation).
- > See Figure 3. How Cortisol Relates to Other Hormone Imbalances for further information on the relationship between key hormones and cortisol. Note that this is an additional figure added for your benefit as a practitioner and instructor that was not put in the book because of space constraints. It will be described in greater detail in chapter 10 of the Instructor's Manual.

The 7 Most Common Hormone Imbalances

When your hormones are in balance, neither too high nor too low, you feel your best. But when they are imbalanced, they become like the mean girls in high school, making your life miserable. Here's the good news: realigning your hormones is a lot easier than running around like a crazy person, depleted and anxious about the little things in life.

Here are the top hormone imbalances I see in my practice:

- Dysregulated cortisol. High cortisol causes you to feel tired but wired, and prompts your body to store fuel in places it can be used easily, as fat, such as at your waist.
- Low cortisol (the long-term consequence of high cortisol, or you might have high and low simultaneously) makes you feel exhausted and drained, like a car trying to run on an empty gas tank.
- Low progesterone causes infertility, night sweats, sleeplessness, and irregular menstrual cycles.
- High estrogen makes you more likely to develop breast tenderness, cysts, fibroids, endometriosis, and breast cancer.

Low estrogen causes your mood and libido to tank and makes your vagina less moist, joints less flexible, mental state less focused and alive.

High androgens, such as testosterone, are the top reason for infertility, rogue hairs on the chin and elsewhere, and acne.

Low thyroid causes decreased mental acuity, fatigue, weight gain, and constipation; long-term low levels are associated with delayed reflexes and a greater risk of Alzheimer's disease.

For **common combinations of hormone imbalances**, see page 48 of *The Hormone Cure* as well as chapter 10, page 263.

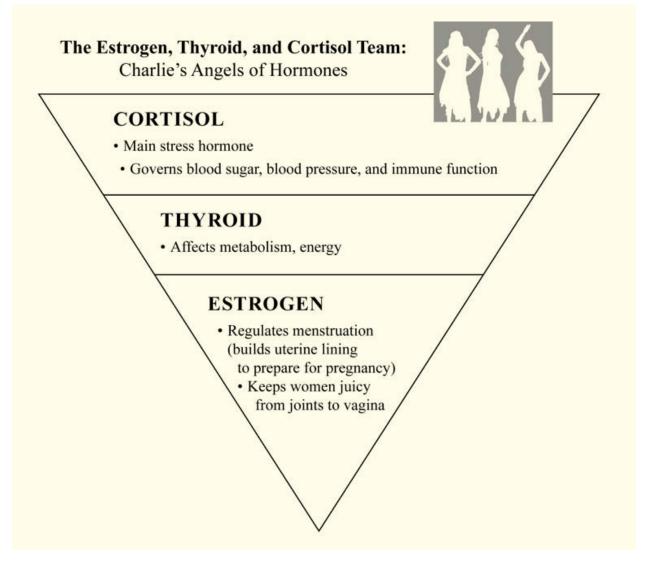


Figure 1. The Cortisol, Thyroid, and Estrogen Team: Your Hormonal Charlie's Angels. Cortisol is your most essential hormone, the main stress hormone, made in your adrenal glands under most conditions, stressful or not. Thyroid hormone is the next most important, and of the three, estrogen is considered least essential compared to thyroid and cortisol, since ovulation isn't necessary for survival.

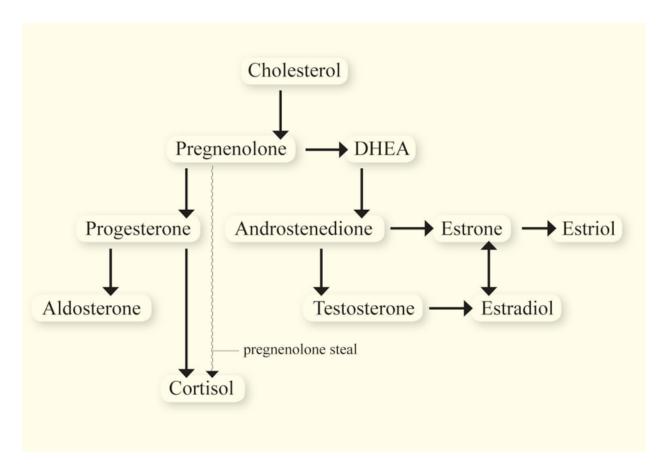


Figure 2. Hormone Tree: Sex Hormones. In your adrenals and ovaries (as well as in the fetus/placenta when pregnant), cholesterol is converted into several hormones.

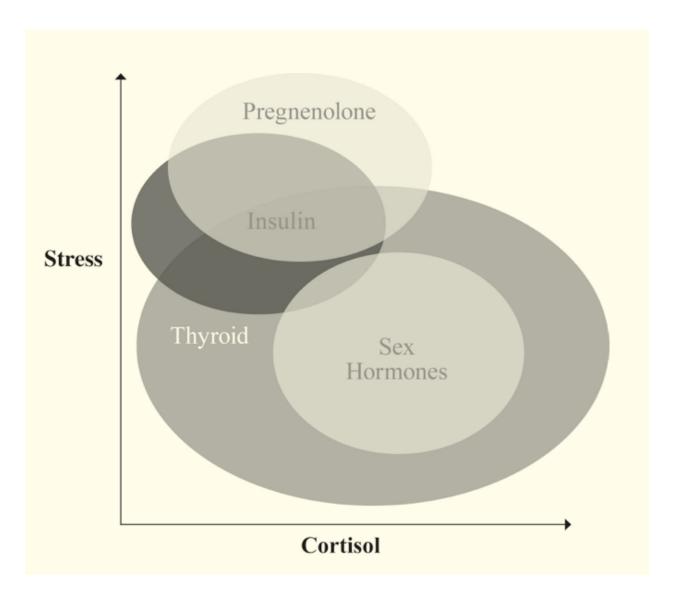


Figure 3. How Cortisol Relates to Other Hormone Imbalances as a Function of Stress. This graphic is complex, but it merits your full understanding as a teacher and practitioner. Note that at a certain level of high cortisol demand, sex hormones are depleted. Additionally, at low and high cortisol levels, conversion of thyroid hormone from T4 (storage thyroid hormone) into T3 (active thyroid hormone) is impaired.

Additional Resources:

- See my speech on "Top 7 Hormone Imbalances and How to Fix Them Naturally" for practitioners (part of a 9-city national tour for The Hormone Cure) http://youtu.be/royHYwXoc_s
- See slide sets that are released with Week 1 of Teach the Hormone Cure for slides with these figures. Keep in mind that these slides are only to be used by graduates of Teach the Hormone Cure, as the material is the intellectual property of Dr. Sara Gottfried MD and is copyright protected under law. You will be prosecuted if you use the material after refunding or failing to complete payment for the course under the full weight of the law.



- Review your top 5-10 strategies to help clients with high stress. More options given throughout *The Hormone Cure*, but here are a few videos.
 - > Just one pose this is a series on youtube.com where I offer just one yoga pose to reset your cortisol
 - "Swan" (a yin version of pigeon pose) http://youtu.be/sFNj4UH0Zgg
 - "PMS Relief" http://youtu.be/uKNtKZn5Kq8
 - "Paced Respiration" shown to reduce hot flashes by more than 40% http://youtu.be/7aDEwZ2MuRk
 - > Wanderlust GPS for the Soul http://youtu.be/g_s2cZqxKwY
 - > The Art of Less Doing Interview with Dr. Sara and Ari Masiel http://youtu.be/_m80Yv00zwk

Chapter 3. Perimenopause: Your Own Personal Global Warming Crisis, Hypervigilance, and Tighter Jeans

SUMMARY POINTS:

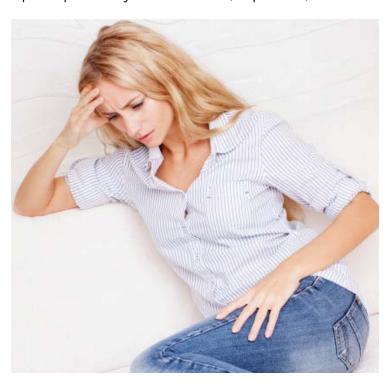
- Perimenopause is the 2-10 years of hormonal upheaval before your final menstrual period. It's like puberty in reverse.
- The first part of perimenopause is characterized by low progesterone (as you run out of ripe eggs, between 35-45) and jagged changes to estrogen, overall resulting in estrogen dominance for 70-80% of women.
- The second part of perimenopause is characterized by even lower progesterone, and low estrogen. You can still have estrogen dominance in this phase as it's defined by progesterone relative to estrogen (in saliva, progesterone/estrogen). Symptoms are typically of low estrogen, low progesterone, and sometimes low testosterone.
- It's important to understand the root causes of the mood, bleeding, sleep, and weight issues of perimenopause, but once again, they will be addressed (just like menopause) by the very same hormone imbalances (chapter 4-10).

Questions to Ask Your Students/Patients/Clients (Questionnaire):

DO YOU HAVE OR HAVE YOU EXPERIENCED IN THE PAST 6 MONTHS...

- Feeling far less cheery about doing the dishes, laundry, grocery shopping, errands, and cooking than you did, say, ten years ago?
- A tendency toward social isolation combined with wardrobe malfunction (you're newly introverted, reluctant to wear anything other than your yoga pants if you have to leave the house)?
- Emotional instability—for the first time in your life, you burst into tears at work when in a crucial meeting and your kid calls with an adolescent crisis?
- A need to unbutton your jeans to make room for the roll around your waist, which seemed to arrive overnight?
- A lack of satisfaction with exercise, since it doesn't seem to affect your weight? I mean, why bother?

- A general feeling of blah or reclusiveness; do you find yourself watching the clock and wondering when it might be socially acceptable to extricate yourself from normal activities and retire for the evening?
- Issues sleeping (indiscriminant debates and ruminations awakening you in the middle of the night)?
- Waking up so sweaty that you need to change your nightgown and sheets, and perhaps even your husband (or partner)?



- New wrinkles? Crow's feet, say, or a perma-furrow in the brow?
- Lagging interest in personal grooming habits (you really don't care how attractive you look)?
- An attitude toward your children that's less gung-ho and more ambivalent than it once was?
- A menstrual period so unpredictable that you don't know whether you're in for spotting or flooding or some weird combination of the two?
- Sudden forgetfulness when walking into a room (knowing you had a purpose but searching for clues as to what it was)?
- A continual doubting of your own instincts and insights?
- More frequent announcements to the family that "Mom's going to take a nap now"?
- Preference for chocolate or a glass of wine over sex (which, frankly, may just be your lowest priority)?
- The idea that Lexapro or a little Xanax sounds increasingly appealing?
- An opinion that addressing your mood issues by giving up sugar, alcohol, and flour, taking various supplements, and hormonal tweaking sounds like way too much work?

PART II.

Chapter 4: High and/or Low Cortisol: Stress Case? Is Life Without Caffeine Not Worth Living (p71)

SUMMARY POINTS:

- It's not how much stress you invite into your life or, it's your **perception** of it especially if you believe it's unhealthy.
- **High cortisol** is linked to a range of problems, including belly fat, poor memory, depression, suicide, metabolic syndrome, diabetes, multiple sclerosis, premenstrual syndrome (PMS), and polycystic ovary syndrome (PCOS).
- High cortisol typically precedes low cortisol, but you can have both within the same day (e.g., I tend to have high cortisol in the morning and low cortisol at night).
- Low cortisol, the consequence of unremitting high cortisol, is linked to chronic fatigue syndrome, fibromyalgia, anxiety, and depression.
- **Unlock cortisol first** because it's the control hormone for other hormones (thyroid, gonads ovaries in women and testes in men)
- Healers and teachers more likely to experience burn out.

• Telomeres are the small caps on chromosomes that are arguably the best measure

of longevity—of biological age as opposed to chronological age.

- Start with filling nutritional gaps: B vitamins and lifestyle redesign.
- For a full list of problems with high cortisol, see Table 1.
 Most of these were edited out of the final version of The Hormone Cure



Table 1.

DR. SARA'S TOP 12 HEALTH RISKS LINKED TO HIGH CORTISOL

- **Diabetes and pre-diabetes.** Cortisol's main job is to raise glucose levels. However, in *subclinical hypercortisolism* (mentioned above), diabetics are five-fold more likely to have high cortisol compared to controls.¹ Even small increases in cortisol, such as those experienced when drinking caffeine, can raise blood sugar and increase insulin resistance.²
- Obesity and increased body fat. Too much stress makes you fat, especially at your belly.³ Women with Cushing's Syndrome or hypercortisolemia according to conventional medical standards are at significant risk, although data are inconsistent.⁴ There does appear to be a correlation between upper body obesity and cortisol levels.⁵
- **Mood problems.** Patients with Cushing's Syndrome have problems with emotion perception, processing and regulation, similar to mood disorder found in Major Depressive Disorder.⁶
- **Brain problems!** Excess stress shrinks your brain, causes cognitive impairment, and decreases brain activity.
- **Delayed wound healing.** Among men who volunteered to receive a 4mm punch biopsy, cortisol levels predicted speed of wound healing, and alcohol consumption, exercise, healthy eating and sleep did not.⁷ Put another way, men with high cortisol were significantly more likely to have slow repair of the biopsy wound.
- Multiple sclerosis (MS). Both development and progression of MS is linked to stress and HPA reactivity. In particular, hyperactivity of the HPA axis has been linked to neurodegeneration (breakdown of the nerves) and increased disability.⁸ People with all stages of MS have high cortisol levels and recently we learned that even early-stage patients have increased morning cortisol.⁹
- **Depression.** Hypercortisolism and a hyperreactive set-point of the HPA system is linked to depression. Hypercortisolism is present in half of people diagnosed with Major Depression. One study showed that depressed people have the same cortisol levels at baseline as non-depressed people, but when stressed, depressed people produce more cortisol, and it stays high. Depressed people don't "recover" to a normal cortisol levels the way that other people do. Additionally, early-life stress, such as physical or sexual abuse, set women up for future HPA overactivity. In one study, women with a history of childhood abuse and a current diagnosis of depression had a six-fold increased stress response. Very recent data shows significantly elevated cortisol levels among people with Major Depression that is

recurrent (on average, six episodes) compared to controls.¹⁵ The high cortisol levels were both in the morning and before bedtime, and were high regardless of daily stress and hassles, and childhood trauma.

- **Suicide.** Given that high cortisol is considered a biomarker of depression, it's not surprising that high cortisol is linked to suicide risk. Indeed, from autopsy studies we know that people who commit suicide ("completers" in the parlance of psychology) have high cortisol levels and bigger adrenal glands as a result of chronic, high output of cortisol. It doesn't end there: Relatives of completers have altered HPA activity too, although it's unclear if this is from grief or a heritable trait. ¹⁶ Relatives show blunted response to stress as measured with salivary cortisol, which is consistent with cortisol resistance.
- **Metabolic Syndrome in women.**¹⁷ Recall that Metabolic Syndrome is a cluster of signs, including high blood pressure, high triglycerides, low HDL or good cholesterol, thick waist (greater than 35 inches in women, 40 in men) and elevated fasting glucose. Approximately 24 percent of the US population has Metabolic Syndrome. Recently, it was shown that caffeine, which raises cortisol levels, is associated with lower HDL in women but not men.¹⁸
- Risk of infertility and Polycystic Ovarian Syndrome. PCOS, the top reason for infertility in the United States (see chapter 7), has been linked to hyperactivity of the HPA axis which makes sense since high DHEAS is associated with Stage 1 of Adrenal Dysregulation.¹⁹
- Worsening sleep. Insomniacs have higher 24-hour cortisol levels.²⁰
- Bone loss in menopausal women and a higher rate of vertebral or spinal fractures are also associated with higher cortisol levels.²¹

Questions to Ask Your Students/Patients/Clients (Questionnaire):

DO YOU HAVE OR HAVE YOU EXPERIENCED IN THE PAST 6 MONTHS...

SECTION A - HIGH CORTISOL

- Feeling that you're constantly racing from one task to the next?
- Feeling wired yet tired?
- A struggle calming down before bedtime, or a second wind that keeps you up late?
- Difficulty falling asleep or disrupted sleep?

- A feeling of anxiety or nervousness—can't stop worrying about things beyond your control?
- A quickness to feel anger or rage—frequent screaming or yelling?
- Memory lapses or feeling distracted, especially under duress?
- Sugar cravings (you need "a little something" after each meal, usually of the chocolate variety)?
- Increased abdominal circumference, greater than 35 inches (the dreaded abdominal fat, or muffin top—not bloating)?
- Skin conditions such as eczema or thin skin (sometimes physiologically and psychologically)?
- Bone loss (perhaps your doctor uses scarier terms, such as osteopenia or osteoporosis)?
- High blood pressure or rapid heartbeat unrelated to those cute red shoes in the store window?
- High blood sugar (maybe your clinician has mentioned the words prediabetes or even diabetes or insulin resistance)? Shakiness between meals, also known as blood sugar instability?



SECTION B – LOW CORTISOL

- Feeling tired or burned out maybe you use caffeine to boost your energy?
- Decreased stamina, especially in the afternoon?
- An atypical addiction to a negative point of view?
- Crying jags for no particular reason?
- Decreased problem-solving ability?
- Feeling stressed most of the time (everything seems harder than before, and you have trouble coping)? Decreased stress tolerance?
- Insomnia or difficulty staying asleep, especially between one and four in the morning?
- Low blood pressure (not always a good thing, since your blood pressure determines the correct amount of oxygen to send through your body, especially into your brain)?
- Postural hypotension (you stand up from lying down and feel dizzy)?
- Difficulty fighting infection (you catch every virus you meet, particularly respiratory)? Difficulty recovering from illness or surgery or healing wounds?
- Asthma? Bronchitis? Chronic cough? Allergies?
- Low or unstable blood sugar?
- Salt cravings?
- Excess sweating?
- Nausea, vomiting, or diarrhea? Or loose stool alternating with constipation?
- Muscle weakness, especially around the knee? Muscle or joint pain?
- A thyroid problem that's been treated, you feel better, and suddenly you feel palpitations or have rapid or irregular heartbeats (a sign of a low cortisol/low thyroid combo)?

CASE STUDY:

Patient: Jenny

Age: Fifty-two

Plea for help: "I feel flat. Help me get my energy and passion back."

Jenny has been in perimenopause for 8 years, and has skipped her last few periods. She lives in what she calls "blended family hell" and does her best not to fight with her teenaged step-son.

When she came to see me, she described her mood as flat; her main symptoms were fatigue, occasional insomnia, and intermittent brain fog. Sex drive fell off a cliff sometime in her forties.

Jenny exercises regularly, mostly walking briskly with her second husband.

Labs:

When I looked at her diurnal cortisol, measured in saliva four times throughout the day, I found her cortisol was too high in the morning.

Not surprisingly, other sex hormones were low, including DHEAS (the sulfated version of DHEA that you measure in the blood), free testosterone, and estradiol.

Treatment protocol:

We cut out coffee and alcohol – Jenny found it easiest to cut them out in my online detox. Read more at www.DrSarasDetox.com.

We started a program of tyrosine, an amino acid that has been shown in a randomized trial to reduce the response to stress (although it may cause anxiety in some people).

I prescribed a nightly supplement called Cortisol Manager, which contains ashwagandha and seriphos.

Results: After three months, Jenny reported that her mood, sleep, and energy had significantly improved. She was poetic when she noticed the difference these small changes – Step 1 of The Gottfried Protocol – made on her feeling of being flat. "Dr. Sara, I just assumed that feeling flat, sensually and sexually, was the new normal as I get older. I figured it was a moral failing. It never occurred to me until now that the problem was biology!"

Not all people are able to tolerate tyrosine and B vitamins because they can be too activating for the nervous system and cause anxiety, but this protocol worked well for Jenny.

Several months later, we measured Jenny's telomeres and found that she was twenty years younger than her chronological age. Jenny is remarkably resourceful and resilient, and I think these traits have kept her telomeres long despite a stressful family life.

Additional resources:

- Here is my speech at Wanderlust on "7 Ways to Rock Your Cortisol
 (+ De-Stress)." It's chock full of strategies to change perceived stress,
 not relax more. There's an important difference!
 http://wanderlust.com/journal/dr-sara-gottfried-7-ways-rock-cortisol-manage-stress/
- Sample webinar with content with Dr. Sara and JJ Virgin, upselling "Fast-track Your Hormone Cure" http://youtu.be/oGQxkqY_mlg
 - > How to 10X Your Sleep http://youtu.be/l6vheVgxPCY
 - > Back to Sleep Breath http://youtu.be/Wz97Xpehook
- For the guys: "What to Do When the Mrs. Is Crazy" this is a fun skype video with James Swanick of Alpha Male Club http://youtu.be/mqSLMGVaHrY
- Telomeres 101 plus cutting edge emerging data. Click here for my interview with Dr. Pedram Shojai on telomeres and ways to improve telomere management http:// youtu.be/45zGTJ69N0s
 - > Heart Math Institute their methods of heart rate variability training have been proven to lower cortisol by 23% and raise DHEA. This link takes you to the nonprofit, which is rich in the research and free tips http://www.heartmath.org/
- Here's a quick meditation for when you're with someone who is suffering, called tong len http://youtu.be/RJ-ocaq-9RY

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About Dr. Sara (And How To Learn More)



Dr. Sara Gottfried M.D. is a Harvard-educated physician, speaker, yoga teacher, and author of the New York Times bestselling book, The Hormone Cure: Reclaim Balance, Sleep, Sex Drive, and Vitality with The Gottfried Protocol (Simon & Schuster, 2014). For the past 20 years, Dr. Gottfried has been dedicated to practicing and helping women feel back home in their bodies.

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