

## 6. Hormonal Dysregulation And Intimacy

Bear with me. Some of this may seem a bit technical at first, but it is critical to understanding this arena.

I'll start with some very interesting details that explain why there is so little difference in these responses to hormones and intimacy in men or women.

**Both males and females are the same up until about seven weeks after conception.**<sup>1</sup> If the fetus is a male, there is a rise in testosterone that starts a host of anatomical changes.

**With a rise in testosterone, the uterus drops down and wraps around the base of the urethra becoming the prostate.**

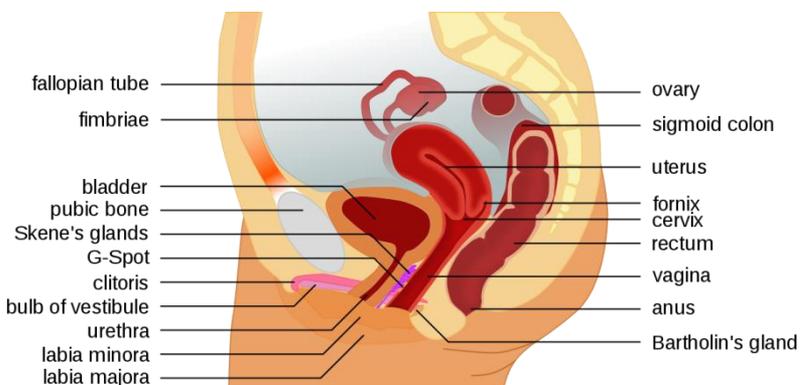
The ovaries, under the same influence of testosterone, grab the round ligament that holds the uterus in place. **The ovaries pull the round ligament down through the inguinal canal and into the labia.**

**The labia become the scrotum.** This explains the seam at the bottom of the scrotum where the labia fuse

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<sup>1</sup> Urogenital System. In: T.W. Sader, *Langman's Medical Embryology*. 5<sup>th</sup> ed. Baltimore, MD: Williams & Wilkins: 1985; 258-280.

together. **The ovaries become testes, and the round ligament becomes the spermatic cord.**



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Then, the three cruxes of the clitoris wrap around the urethra. The urethra and the three cruxes elongate to become the penis.

**With this in mind, both men and women have the same organs that are subject to the same hormonal responses and dysfunctions.**

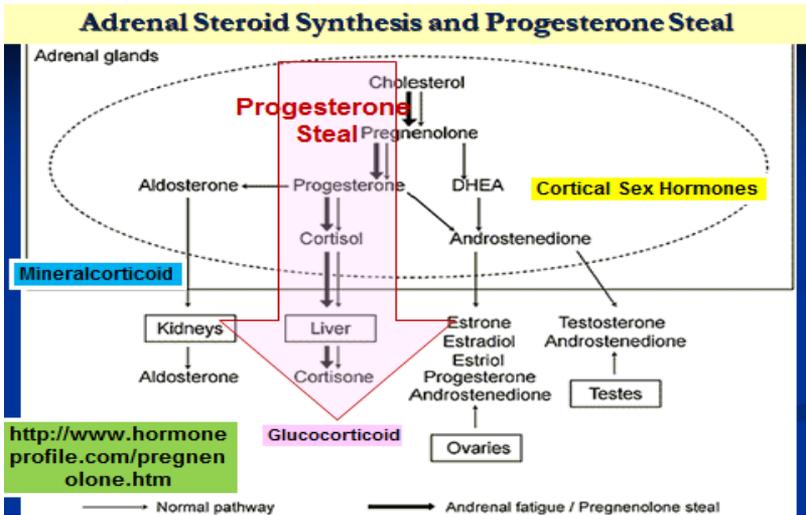
One sidenote to knowing this is that this knowledge can greatly increase your quality of intimacy, and intimate experience. What feels good to one sex has a similar organ cause and effect in the other sex.

And for the guys out there who don't yet know this, a women's reproductive organs are much more sensitive than yours. She is capable of multiple and stronger orgasms than her male partner.

It's up to the man in her life to care enough to bring her there.

If we go back to the concept that was introduced two chapters ago on the **HPA**, this will begin to make sense. Let's review.

**The adrenal glands make our stress hormone cortisol and our sexual hormone precursors pregnenolone and DHEA. When we have too much stress, it demands more cortisol. Rising cortisol needs shunts pregnenolone and DHEA over to make cortisol. This is called the pregnenolone steal.**



The pregnenolone steal is why we will either make stress hormones or sexual hormones. We only make both when the adrenals can rest.<sup>2</sup>

**When the adrenal hormones start to react in this way, it taxes the regulation system.** Our hypothalamus reads circulating blood levels of hormones, gasses, and minerals. The hypothalamus then communicates with other organs to regulate these levels.

In the case of hormones, the hypothalamus communicates with the pituitary gland. The pituitary gland then sends out hormonal signals to the target hormone-producing glands to regulate our hormones.

**If the target adrenal gland cannot respond to the feedback of the hypothalamus and pituitary, the whole system can begin to dysregulate. This is one basis of the hypothalamus pituitary adrenal axis, or HPA dysfunction.**<sup>3</sup>

**Pregnenolone and DHEA** from the adrenals will get **converted** into the female hormone **progesterone** in both men and women. **Progesterone** gets

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<sup>2</sup> <https://www.naturalendocrinesolutions.com/archives/the-negative-impact-of-the-pregnenolone-steal/>. Accessed 8/12/13.

<sup>3</sup> Adrienne Dellwo, *HPA Axis Role in Fibromyalgia & ME/CFS*, Very Well Health, 8/30/18, <https://www.verywellhealth.com/what-is-hpa-axis-715669>. Accessed 12/18/18.

**converted into testosterone in both sexes. Testosterone converts into estrogens in both sexes.**

If we look at a woman's cycle, there is a rhythm of estrogen dominance in the first half of her cycle which peaks just before ovulation. The follicle where the egg was just released from converts, and begins to produce progesterone for the second half of the cycle.

Menses occurs if there is no implantation of the released egg, and the cycle repeats.

**When there is insufficient pregnenolone and DHEA to make proper estrogen levels, the woman's cycle does not properly prepare the egg to be released through ovulation. Without ovulation, no progesterone is produced.**

**When cycles without ovulation begin to appear the cycle starts to change.** Estrogens cause the reproductive tissues to grow and increase secretions. The cervical mucous secretions should peak right at ovulation.

**Progesterone is then supposed to come in and calm everything down. Estrogen excites the tissues; progesterone calms and relaxes them.**

**With no progesterone, there is no relaxing of the reproductive systems in women. Menses starts to change. Heavy clotting periods can**

**move into scant spotting cycles, or they can disappear altogether.**

**The lack of progesterone cannot help calm down the mood swings either. Anxiety and depression** can start to rise, and restlessness disrupts an otherwise calm scene.

Cervical mucous production begins to wane as the estrogen levels reduce. Women can start to develop **reproductive dryness. Libido falls with the falling estrogen, and the added discomfort with vaginal dryness can curb intimate intentions rather quickly.**

**In men, very similar reactions are occurring.** Falling pregnenolone levels reduce his ability to make testosterone. Falling testosterone levels curb sperm production and make him less fertile.

**Falling levels of estrogens and testosterone can begin to cause genital atrophy.** Women's labia begin to lose their fullness. Breasts respond much in the same way and begin to lose their shape.

Men, in the same way, can start to lose penile and testicular volume with depleted levels of testosterone.

**Erectile dysfunction can begin to occur in both men and women.**

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*Many years ago, I was at a conference where a website address was given as an example of ingenious marketing. It was a plastic surgeon's website.*

*He was advertising the normal breast reductions and face lifts. But what really surprised me was the offering of **labial lift surgery**.*

*I had to step back and reflect on why this was offered.*

***I then realized that women have as much, if not more, problems with erectile dysfunction as men. But since they can still engage intimately, the problem is mostly ignored.***

**Erections are made by nitric oxide responses** in both reproductive tissues, and nipples in both men and women. Nitric oxide that is primarily made in the endothelial lining of our blood vessels is called eNOS. **eNOS is a nurturing form of nitric oxide that controls blood vessel tone, and erectile function.**<sup>4</sup>

**iNOS is inflammatory nitric oxide that causes inflammation.**<sup>5</sup> **The inability to make enough eNOS makes us unable to have our erectile tissues engorge and stand up.**

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4. Cartledge J<sup>1</sup>, Minhas S, Eardley I., The role of nitric oxide in penile erection, Expert Opin Pharmacother. 2001 Jan;2(1):95-107, [https:// www.ncbi.nlm.nih.gov/pubmed/11336572](https://www.ncbi.nlm.nih.gov/pubmed/11336572). Accessed 12/18/18.

5 Sharma JN<sup>1</sup>, Al-Omran A, Parvathy SS, Role of nitric oxide in inflammatory diseases., Inflammopharmacology. 2007, Dec;15(6): 252-9. doi: 10.1007/s10787-007-0013-x.

Both men and women have the same three cruxes of erectile tissues in their genitals. Women have one in their clitoris, and one in each labia majora. Men have all three cruxes in their penis.

**It is the erection of the cruxes in the labia that cause the reproductive tract to open for engagement of intimate pleasures. It is the erection of the clitoris that allows contact in intimate engagement to bring stimulation to orgasmic levels.**

If there is inadequate erection of these cruxes, a woman loses her ability to orgasm. This is common in postmenopausal women, but it is also more **prevalent in younger women with chronic illness**. The pregnenolone steal, coupled with the production of iNOS, are big factors in this.

When we look at the **male, ED is much more obvious. But the exact same thing is going on with him, as described with women above**. Depleted testosterone levels as a result of pregnenolone and DHEA being shunted to make cortisol, coupled with iNOS production, make him unable to properly erect.

Then we add complicating factors.

Interstitial cystitis (IC) may bar the door of intimacy with pain. **Interstitial cystitis is pain from the**

**tissues around the bladder.** This can include genitals, erectile tissues, and reproductive tracts, as well as urinary tracts.

Mayo Clinic publishes that the cause of IC is still unknown.<sup>6</sup> Reflecting from what we have learned thus far, we can make some sense to it.

**All pain is caused by inflammation. When inflammation becomes chronic, its cause no longer has any sensible relationship with where it started. Chronic inflammation becomes global, showing up everywhere in the body.**

**Chronic overproduction of cortisol is one cause of inflammation.** In chronic adrenal fatigue there is commonly an overproduction of cortisol. The cortisol can cause pain from inflammation anywhere in our bodies. But it is most likely to cause the most discomfort in our more sensitive tissues.

We can add some of the more obvious causes of inflammation to consider in interstitial cystitis. Toxicity is another factor. This can be a problem in either phase 1 or phase 2 of detoxification.

Phase 1 typically makes a toxin more toxic. Phase 2 makes the byproducts of phase 1 less toxic, and also

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<sup>6</sup> Interstitial Cystitis, <https://www.mayoclinic.org/diseases-conditions/interstitial-cystitis/symptoms-causes/syc-20354357>, Accessed 12/18/18.

water soluble. The water solubility allows us to then excrete the toxic byproducts.

The 2 primary routes of toxin excretion are the bowel, and the bladder. It is the flora in the bowel that decides whether we will excrete our toxins, or recycle them. So bowel health needs to be properly assessed and addressed.

If phase 2 is sluggish, with an active phase<sup>1</sup>, then the more toxic byproducts trying to escape through the urinary tract would be another source of inflammation.

Problems with lipid metabolism will also cause inflammatory byproducts that will irritate the urinary tract.

Food intolerance is another cause of global inflammation. As we will address later, the proper identification of food intolerances is a major clinical problem with less than a 3% accuracy in the most commonly used testing means.

The reproductive and urinary tracts are made up of sensitive tissues. **The production of iNOS further adds to the inflammatory fire.** Then there are all kinds of other hormone-like chemicals that can make the inflammation seem like an all-consuming fire.

An anti-inflammatory diet and lifestyle are sensible approaches to IC. We will address these later.

**Cortisol**, from chronic stress and inflammation, will also **raise our blood sugar**. Elevated blood sugar **causes our insulin to rise**. **Cortisol plus insulin stimulates the hormone aromatase to become active in our fat stores**.

**Aromatase converts our testosterone into estradiol;**<sup>7</sup> this produces a **feminizing response in men, and kills libido in both men and women**. Both men and women need testosterone for intimate interaction and desire. Without it desire is gone for us all.

So think about this: Inflammation makes us become fat by cortisol raising our blood sugars. Insulin follows, making us build fat out of excessive blood sugar. The insulin and cortisol together turn on a hormone called aromatase in our building fat stores. The aromatase converts testosterone into estrogens, which turns all sexual desire upside down.

With this, we add depleted thyroid hormones and response. This depletes our mitochondria, which in turn depletes the ability for every cell in our bodies to make energy.

We all need energy for intimacy. It takes energy to engage intimately. Without it, there is no energy to even consider the idea of intimacy.

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<sup>7</sup>Medical Definition of Aromatase, <https://www.medicinenet.com/script/main/art.asp?articlekey=15844>. Accessed 12/12/18.

And with Lyme infections, there is another factor to consider. It has been known for a long time that Lyme bacteria have been found to be in semen. **New research now shows Lyme bacteria have been found to be present in both male and female sexual fluids.**

Cervical mucous has now been shown to have Lyme bacteria as well as semen.<sup>8</sup>

**With this in mind, creativity should be welcomed by all.** Foreplay may need to become much richer, more creative, and longer lasting. The goals of intimacy need to be reassessed.

**Making the arena of intimacy a creative conversation of soul touching soul by paying close attention to invitation and responses of both parties should be a refreshing idea.**

Bringing your partner to the heights of intimate fulfillment may take touching and caressing of all sensitive areas of the body. The use of hands and fingers with creative strokes and rhythms may add richness and depth to the experience.

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<sup>8</sup> Prweb, Lyme Disease May Be Sexually Transmitted, Study Suggests  
,*The Journal of Investigative Medicine* 2014;62:280-281, Cision PRWEB,  
[https://www.prweb.com/releases/2014/01/prweb11506441 .htm](https://www.prweb.com/releases/2014/01/prweb11506441.htm).  
Accessed 12/31/18.

**And the goals of intimacy need to go far beyond just engagement. It should become the arena to build trust, value, self-worth, and the reassurance of commitment that will deepen the relationship.**

A hugely positive note in favor of frequent intimacy is that 14 days in a row of sexual intimacy have been shown to decrease cortisol levels. This means that intimacy has a strong anti-inflammatory effect.<sup>9</sup>

And for engagement, **the only protection that may have something to offer is condoms.**

But condoms have pores in them; latex condom pores allow HIV virus at a diameter of 110nm to pass through them.<sup>10</sup> Borellia bacteria are 3 times this width, and therefore not likely to pass.<sup>11</sup> Rickettsia bacteria are about 2 times the HIV diameter, making them probably

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<sup>9</sup> Dave Asprey, Head Strong: the bulletproof plan to activate untapped brain energy to work smarter and think faster-in just 2 weeks, pp 59, ISBN 978-0-06-265241-6

<sup>10</sup> Carey RF et al, Effectiveness of latex condoms as a barrier to human immunodeficiency virus-sized particles under conditions of simulated use, *Sex Transm Dis.* 1992 Jul-Aug;19(4):230-4, <https://www.ncbi.nlm.nih.gov/pubmed/1411838>. Accessed 1/15/19.

<sup>11</sup> Motaleb MA, Liu J, Wooten RM (2015). "*Spirochetal motility and chemotaxis in the natural enzootic cycle and development of Lyme disease*". *Current Opinion in Microbiology.* 28: 106–13. [doi:10.1016/j.mib.2015.09.006](https://doi.org/10.1016/j.mib.2015.09.006).

safe also.<sup>12</sup> Ehrlichia is smaller than the HIV virus however, and may pass through the condom pores as well.<sup>13</sup> Mycoplasma would be small enough to pass as well.

For the best protection, both male and female condoms probably should be worn at the same time, with plenty of [clean, good quality lubrication](#), if Ehrlichia or mycoplasma is present, or suspected.

But with this idea, the condom needs to be used correctly. If a male deflates too much, the condom may leak. He needs to withdraw before he gets to that point. If there is excessive cervical mucous that goes around the condom the Lyme bacteria may still be able to penetrate the tender genital skin of the male or female.

The thought of whether Lyme is active, and able to pass from one partner to the other, or in remission and not able to be passed really gives no solid reality of safety to stand on. Lyme is caused by live bugs that make cysts,

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<sup>12</sup> Dr. Tritz's Lectures, RICKETTSIA, CHLAMYDIA, MYCOPLASMA, MEDICAL MICROBIOLOGY FALL 2000, Kirksville College of Osteopathic Medicine, <https://www.atsu.edu/faculty/chamberlain/Website/Lects/Content1.htm>. Accessed 1/15/19.

<sup>13</sup> Christopher D. Paddock, James E. Childs, *Ehrlichia chaffeensis*: a Prototypical Emerging Pathogen, Clinical Microbiology Reviews, 4/1/03.

DOI: 10.1128/CMR.16.1.37-64.2003

move, reproduce, and grow without letting us know what they are doing.

There can be a point when the Lyme is gone. Then you are free again in this arena. Make it rich now. It will be even better when your day of liberty comes.