

## **BioBites: Restoring Hormonal Balance**

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### **Presentation**

**The BioMed Approach.** BioMed is prevention-focused medicine. Biological Medicine accepts that the body has an innate ability to regulate, adapt, regenerate, and heal. The body has many systems that communicate with each other (including the endocrine system, which we'll focus on here) - these systems all communicate with the shared goal of homeostasis and survival.

**What are hormones?** Hormones are chemical messengers that tell cells to do something or not to do something. They are produced by glands in the body; together, these components make up our endocrine system. Hormones are not good or bad. It's when hormones become confused and imbalanced that things become a little disconcerting. They're produced over a lifetime in different degrees; we start with some adrenal hormones, when we hit puberty we get reproductive hormones, and then later in life we rely on hormones to carry us through the rest of our lives. When we go through our hormones faster than the body would intend for us, that's when we can have a discussion about replacing them and the benefits, etc.

Hormones are responsible for growth and development, metabolism, sexual function, reproduction, and mood. There are over 50 hormones in the body. Though we tend to think of estrogen for females and testosterone for males, there are many important hormones, including thyroid hormones, insulin, serotonin, cortisol, adrenaline, and growth hormones. We have all of these hormones; they are all messengers talking to each other and to every cell in the body. When we talk about balancing them, we're looking at all of these different levels and the goal is to balance and regulate these different levels. When the body is low in one area, it tends to pull from another area - therefore they must be looked at together and not in isolation.

**Why are hormones important?** The *balance* is important. When it comes to all hormones, there are three buckets we look at. Metabolic hormones, which are thyroid hormones; reproductive hormones, which are related to the testes and ovaries; and survival hormones, which are associated with the adrenal glands. In practice, many will try to look at hormones in isolations, (i.e. "you have a hormone problem") versus looking at them with a wide, interrelated lens.

**Hormones in balance.** Having these hormones in balance is analogous to an orchestra with sections playing the right tune at the right time. Each type of hormone has a time of day in which it wants to sing at the right time. Stress and environmental toxicity (which humans are responsible for) have disrupted the ability of this orchestra to play in sync. These are key contributors to the infertility and disruption around menopause that are commonplace in the US today.

**Hormone loss.** For many, we are burning through these hormones, which throws the body out of balance. There is a bit of a hierarchy of needs when it comes to hormones. Survival is always the most important - our body needs its certain hormones to survive each day and more so with the amount of stress in our current environment. The perception of stress in our environment contributes noise to the nervous system; the nervous system determines what hormones get

produced. So when our body calls for hormones required for survival, growth hormones and reproductive hormones - “luxury” hormones - aren’t being produced.

**Restoring hormonal balance.** Practitioners start with a full, comprehensive panel to help better understand what’s pulling hormones down (chronic disease, puberty, nutritional status, etc.). Blood, saliva, and urine testing provide different ways to measure hormones. Depending on what is taxing a person’s levels, the treatment options are very different.

Lifestyle and supplemental changes are a common place to begin. Routine is significant; the right routines help the body do what it is intended to do. The goal is to stop ‘spending’ our hormones; we need to develop routines that reduce stress, toxicity, and inflammation. Good sleep hygiene, hydration, having fun, eating nutritious foods, etc. play instrumental roles in overall health. Meanwhile, practitioners can help patients supplement with hormones to help get the adrenals going or support the body in getting the hormones it needs.

Think of supplemental hormones as a cast - putting the body in a position to let it heal. Giving the body what it needs through lifestyle changes and additional therapies further supports the restoration of balance in the body so that it can ideally be brought back to homeostasis.

We also have come to accept certain conditions and bodily changes as typical of aging; but are these associated with aging or the result of hormone loss? Hormones are key to aging with health intact, given the vital role they play in overall health.

**Menopause.** Women are born with a certain amount of eggs. At some point, those eggs run out and this signals to the body that the adrenals should take over and carry us through, hormonally, through the remainder of our lives. If there’s been chronic inflammation, stress, toxicity from foods, etc. the adrenals will not be able to produce the little amounts of estrogen, progesterone, and testosterone needed. This is when symptoms associated with menopause occur: hot flashes, mood changes, fat deposition.

**Hormone therapy options.** There are bioidentical creams, injectables, pellets inserted under the skin are all options. There has long been a debate on synthetic versus bioidentical hormone options. These are vastly different. The synthetic version of hormones that are more common in conventional settings is not ideal. Bioidentical hormone products are made from natural products; the body views and interacts with these in the same way that it does the hormones it produces, leading to a better overall experience with fewer side effects.

**The ‘norms’ of hormone levels.** One of the key ideas here is ‘normal’ values or ranges aren’t necessarily meaningful. Each body has certain levels of hormones that, when maintained, allow the body to function and regulate itself properly, leading to optimal expression of health and a reduction in the adverse experiences often attributed to aging. Providers who specialize in bioidentical hormone therapy help determine what the ‘ideal’ or ‘optimal’ level of hormones is for a patient based on a variety of factors and then support the patient in reaching and maintaining these levels, over time.

## **Q&A**

**How should someone who is interested in learning about their hormones proceed?** Patients should start with a panel that shows all of their various levels; this can be paired with a more comprehensive evaluation or not. Once levels have been determined, treatment options can be

determined. These might include supplements, a change to diet, bioidentical creams, etc. Values are then evaluated at intervals to determine what values and lifestyle changes are most supportive of optimal outcomes. Much of this can be done remotely (dependent on state laws). Dr. Drobot recommends also looking at the nervous system in tandem with hormones, given the strong relationship between these two.

**Which hormones should be audited annually?** All the thyroids, TSH, free T4/T3, cortisol, DHEA, estrogen, progesterone, testosterone. This doesn't vary male/female. Dr. Drobot likes to see patients generally in the upper 70th percentile - people generally do well when their hormones fall in these ranges.

**At what age can patients start talking to their practitioner about hormone health?** This conversation is worthwhile at any age; early 20s is not too soon to start. For females, the important thing is to assess levels at day 21 of your menstrual cycle. You want to evaluate when progesterone is going to be the highest. Progesterone and testosterone tend to be, for women, the values that are more affected.

Considering how athletics and physical stress, birth control and hormone regulation, and other lifestyle factors are affecting overall health through childhood and the teenage years, it's never too soon to learn about this aspect of health and how we can support the body to reach an optimal state.

**How does cortisol and stress interact with or interfere with hormones?** Cortisol is king because survival is something that the body must do. Our body produces cortisol when it senses we are under stress, as though our survival is threatened. And when cortisol is produced, reproduction and metabolism stop. We are all producing more cortisol than we need to for myriad reasons - inflammation from our foods, nervous system irritation from EMFs, etc. This thus impacts the levels of reproductive and metabolic hormones our bodies produce, diminishing production. Keep in mind that both high and low cortisol levels are not ideal. We need cortisol, but we need it in balance.

**How do we stay in a good zone?** Start with measuring your hormones. Sometimes the things we do are working against us. For example, exercise increases stress, though many may use exercise as a stress release. If we're measuring our levels, we are better able to determine what is working and what's not working, which we can do by comparing values.

**Is hormone replacement compatible with peptide supplementation?** Peptides are a sequence of amino acids; amino acids make up proteins. You're giving peptides specific to your goal - cartilage repair, performance, muscle building, sleep. They're specific; you choose the peptides specific to your needs. Peptides do work nicely with hormones - they both help the body repair.

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