

GUIDE TO HORMONE TESTING

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Happy Hormones
H A P P Y L I F E

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DISCLAIMER

All information contained within this manual is for informational purposes only. Health information changes rapidly. We do not assume any liability for the information contained within this manual, be it direct, indirect, consequential, special, exemplary, or other damages. The information provided is not intended to diagnose, treat, cure, or prevent any health problem – nor is it intended to replace the advice of a licensed medical practitioner. No action should be taken solely on the contents of this manual. Always consult your licensed medical professional on any matters regarding your health or on any opinions expressed within this manual.

Holistic nutrition and functional wellness philosophies work in a complimentary fashion to medical treatment, and does not diagnose, treat, cure or prevent any disease. Laboratory testing is used as a "guide" to identify nutritional deficiencies, hormone imbalances, vitamin needs and the best nutrition and lifestyle program for you. Lab testing is not meant to "diagnose, cure or treat" any medical condition.

Statements regarding essential oils, herbals or supplements have not been evaluated by the Food and Drug Administration. These products are not intended to treat, cure, or prevent disease, nor are they a replacement for drugs or medicines. We do not make any claim that they should be specifically prescribed for any specific ailment or medical condition.

Please see your physician before changing your diet, starting an exercise program, or taking any supplements of any kind.

HORMONE TESTING

If you've ever suffered from brain fog, low energy, poor sleep, mid-life acne, dry skin, menstrual cramps, hot flashes, stubborn belly fat, food cravings, hair loss on your head yet hair growth on your face or body, difficulty losing weight, or wonder why your mood seems to be all over the place – you are not alone. Nor do you need to put up with symptoms that become life-disrupting! Our hormones impact every aspect of the human experience, altering our emotional state, regulating hunger hormones, modulating our stress response, controlling our blood sugar, and supporting sexual function.

You've been told your entire life these symptoms are typical and come with the territory (you know because you're a woman). Sure, these symptoms are "common," but it's not supposed to be this way. Our hormonal cycle is interconnected with ALL aspects of our life, and becomes imbalanced due to poor diet choices, stress, lack of exercise, medications, and exposure to environmental toxins. Trying to 'fix' one issue without addressing the underlying reasons for hormonal imbalance is an incomplete approach. When you give your body what it needs to heal, your system can work in harmony.

Both the endocrine system and female sex hormones are quite complex, and unfortunately, conventional medicine has an overly simplified view regarding treatment - including testing. This guide will explain the different testing options available so you can make an informed discussion regarding hormone testing.

WHAT ARE HORMONES

Hormones are fast-acting chemical messengers that provide the body with information about how to respond to internal and external stimuli. Our hormone levels are always adjusting in order to promote balance. **Unfortunately, most of us live in a state of imbalanced or sub-optimal circumstances that puts stress on our hormone systems.** Toxins, stress, unhealthy foods, infections, illness, and gut imbalances all alter our hormone levels. As women age, these imbalances become more pronounced, causing more dramatic hormonal shifts leading to many troubling symptoms.

WHY IS HORMONE TESTING SO VALUABLE?

Test don't guess! Getting actual data about your hormone levels is a crucial part of determining appropriate and effective approaches to rebalancing your system. Symptoms give us insight, but can lead us astray into time-consuming and fruitless guessing games.

When we know what your hormone levels are, we can customize protocols to support hormone production when necessary, or facilitate a detoxification and clearance of hormones when necessary. However not all testing is equal in what kinds of information they can offer, and can be unreliable.

The Problems with Blood Serum Testing

Most traditional medical doctors will evaluate hormone levels through blood and serum with a hormone blood panel. But if your doctor tests your hormones and says your fine, but you don't feel fine, it's time for a new hormone test!

Blood levels only give a snapshot of what's going on in your body at the time of draw. This is particularly problematic for **adrenal hormones (particularly cortisol)**. Cortisol is a stress hormone that fluctuates according to a circadian rhythm throughout the day. For this reason, you can get dramatically different results depending upon the time of day when a blood draw occurs. Another factor is that a single point cortisol test doesn't offer any insight into an individual's circadian rhythm and how well the body is adapting throughout the day. Saliva testing for cortisol remains the best option for getting an accurate picture, especially if you are struggling with stress, fatigue, anxiety, decreased libido, trouble sleeping and insomnia.

Serum testing of **sex hormones (like estrogen, progesterone, and testosterone)** can also be problematic because this test does not distinguish between bound and unbound (free) forms of the hormones. The free form is the only bioavailable form the body can use – but this test won't tell us how much you have. If the free hormone level is low, you can feel bad even though your labs show “normal”.

Serum testing still remains the best option for weight related hormones like insulin, leptin, and adiponectin, and for testing the thyroid which is involved in proper metabolism and energy production.

A Single Test Gives You the Full Picture

Precision Analytical Inc. has analyzed all the pros and cons of the various hormone testing methods and has come up with the best of all testing forms. This dried urine test allows for easy at home collection and evaluates bound and unbound forms of cortisol (adrenal function), 24-hour circadian rhythm assessment, accurate sex hormone determination, and how the sex hormones are metabolized! While absolute levels of your hormones matter – it's what your body does with those hormones that matters more. Does your body turn testosterone into acne-producing 5 α -DHT? Does your body turn estradiol into DNA damaging 4-OH estrone? Is your body healthfully eliminating estrogen from your body?



By understanding how your sex hormones are metabolized, you can understand what hormones are doing in the body and then direct optimal balance and function through specific therapeutic nutrients and herbals. Additionally, it evaluates melatonin levels (for those of us not sleeping well), and several organic acid markers that provide insight into neurotransmitters, vitamin B6 and B12 status, and oxidative stress.

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The information from your DUTCH test can then direct the development of a very personalized protocol – herbs, supplements, dietary and lifestyle modifications, exercise, stress relief strategies, and more – to support your specific health needs in your aim to restore your hormone balance.

THE BASIC HORMONES IN PERIMENOPAUSE

Estrogen

Estrogen is one of the most important hormones in our bodies, and has many benefits to our health, but can have negative impacts if it is not in balance. This starts to happen in perimenopause as hormone levels fluctuate tremendously. Progesterone starts to decline first, giving rise to symptoms of estrogen excess.

Not all estrogen hormones are the same. The female body makes three major types of estrogen hormones. The first and most abundant estrogen hormone produced in women of childbearing years is called estradiol or E2. It is important for maintaining regular menstrual cycles and the overall health of the female. Estriol (E3) is really only detected in significant quantities during pregnancy during which it is produced by the placenta. The third major estrogen hormone is known as estrone (E1), which is the main estrogen hormone that the female body produces after menopause.

Knowing your levels of each estrogen is very important, as is knowing how estrogen is metabolized and excreted from the body. Which metabolism pathway does our body use and is it the best one? The DUTCH test shows you

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ratios of healthy metabolites to cancer-causing metabolites. This is very important to know and evaluate, especially if you are on HRT (hormone replacement therapy), are considering it, or have a family history of estrogen related cancers.

Progesterone

While progesterone plays a very important role in preparing the female body for pregnancy, it also is important for a woman after her child-bearing years. Progesterone balances the negative symptoms that accompany estrogen excess. If progesterone levels start to decline, the most common symptoms are insomnia, night sweats, menstrual migraines, heavy/painful periods, anxiety and weight gain. Progesterone helps calm the mood and alleviate depression and anxiety, while balancing estrogen.

Testosterone

Although testosterone is predominantly a male hormone, women do require low levels of testosterone in order to be healthy and happy. Women require a healthy level of testosterone for bone strength, increased cognitive performance, and an increased sex drive. Women with inadequate levels of testosterone experience low libido, which can become very frustrating and problematic for them. It can also increase the risk of osteoporosis as bones become weaker.

Just as too little of a hormone is problematic, so is too much of it.

And if your body is sending more testosterone towards the DHT metabolites, you will see acne, hair loss, and chin/upper-lip hair growth, yuck!

Cortisol

Cortisol is more commonly known as the stress hormone. It is released by the adrenal glands and it is the chemical controller of digestion and hunger, sleeping and waking, blood pressure and physical activity, as well as stress levels. It is also responsible for blood pressure regulation, insulin release for blood sugar level maintenance, functions of the immune system, and maintaining appropriate levels of glucose, as well as your inflammation response system. High stress in any form can cause the adrenal glands to be overworked. Initially high stress leads to high cortisol – causing anxiety, difficulty falling asleep, blood sugar issues, and weight gain. Eventually, the adrenal glands burn out, leading to extreme fatigue and exhaustion, and impaired immune function.

Thyroid Hormones

The thyroid hormone is primarily involved in regulating metabolism. An underactive thyroid can lead us to feel fatigued and harbor unwanted weight. It is intricately connected with adrenal function and sex hormones, so it's important to evaluate all 3 together as a complete picture. There are numerous hormones involved in healthy thyroid function. There are typically three that are routinely tested; they are TSH, T3, and T4. TSH (thyroid-stimulating hormone) is a hormone made by the pituitary gland, that stimulates the thyroid to make hormones. It is often the only thyroid marker tested by most doctors but actually only measures pituitary function! If the pituitary gland is producing abnormally high levels of TSH, it may mean that your thyroid gland is not making enough hormones. For a complete picture, you must also measure free T3 and free T4 in the blood, which is the active thyroid hormones. From this you can tell if you are

making enough hormone, and converting it properly to its active forms. Certain nutritional deficiencies and dietary choices can impair thyroid conversion.

BEFORE YOU TEST

Testing will accurately reflect your current hormone levels. If you're currently taking bio-identical or synthetic hormones, your hormone levels will change once you discontinue use. Do not alter your hormone therapy without consulting your physician first. If discontinuing hormone therapy, labs generally recommend waiting six weeks until collecting the sample. Some supplements, such as biotin (B7), can also interfere with hormone tests such as TSH, FSH, LH, T4, T3, Estradiol, Testosterone, and Cortisol. If you have further questions regarding testing while taking hormones, medications, or supplements, speak to your doctor.

WHAT TO TEST

Test Basic Sex Hormones & Adrenals

The DUTCH COMPLETE is the most comprehensive test on the market to evaluate:

- Estrogens (E1, E2 and E3) and estrogen metabolites (is there an impairment in your estrogen detox that could predispose you to estrogen related diseases?)
- Progesterone
- DHEA
- Testosterone and its metabolites

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- Daily Free Cortisol Pattern (24-hour adrenal profile)

Test Stress and Sleep

Cortisol has a profound impact on both sex and thyroid hormones – as well as weight management. The DUTCH COMPLETE test can show:

- Cortisol
- Cortisone
- Melatonin
- Vitamin B6 and B12 status (low levels cause anxiety and mood disorders)

Test Thyroid Function

Thyroid imbalance is common, affecting 2 out of 8 women! This is a separate blood test and is not included in the DUTCH test.

- TSH
- Free T4
- Free T3
- Reverse T3

(Along with the basic thyroid hormones, many thyroid experts suggest testing anti-thyroid antibodies such as TPO and TgAb too.)

STRUGGLING TO BALANCE YOUR HORMONES NATURALLY?

Let us help make your hormones (and life!) happy again!

The goal is to increase your energy, improve your mood and sleep, help you in achieving your optimal weight, and relieve symptoms related to the aging process. Our nutrition and lifestyle programs help you to achieve this and testing is a critical step in uncovering imbalances contributing to sub-optimal health.

Our Programs Help You:

- Understand your unique biochemistry
- Learn how and when to eat to reset your hormones
- Control portion sizes *and* cravings
- Feel more energetic
- Clear brain fog
- Have fewer PMS symptoms
- Have fewer hot flashes
- Get better looking skin
- Sleep deeper and more restfully
- Stabilize moods
- Address other nagging or long-term health concerns

We combine the best of both worlds – an integrative holistic nutrition and functional wellness approach with access to traditional medical care should you need more! Explore www.happyhormones.info and get started on your road to feeling your best after 40.

Want to test on your own? The DUTCH COMPLETE can be ordered here: <https://dutchtest.com/product/dutch-complete-2/>. All clients will receive \$100 off their testing with purchase of a 1-on-1 consulting package – the best choice to see real and long-term changes.

For more information on other functional testing options, please visit <https://www.happyhormones.info/functional-testing> .

Here's to your Happy Hormones Happy Life!