Dr Brooke's Guide to

LAB TESTING
FOR WOMEN and their hormones

This guide covers hormonal testing and thyroid patterns and will show you how to suss out the Hormonal Dealbreakers of inflammation, anemia and blood sugar problems.

By Dr. Brooke Kalanick

Dr Brooke's
LAB GUIDE

I created this lab guide because I believe every woman deserves a better understanding of how her body works and how her hormones are faring. Unfortunately it has landed in your lap as the patient to advocate for yourself and get your needs met in today's modern medical machine as there are so many woman falling within normal lab ranges yet still with a host of symptoms. I wanted to help you understand your laboratory testing a bit better as it is an important part of what's going on with you internally. In functional medicine we utilize labs to tell your bigger health story, suss out more subtle imbalances and believe lab tests go beyond merely ruling out pathology.

I also made this guide because I get asked every day without fail on Instagram, Facebook or in my inbox this question:

What tests should I ask my doctor to run??

Seriously, if I had a dollar for every time....

And I get it! Lab testing is an important objective measure of your hormones and internal chemistry and I want you to understand your testing better. BUT before we do I want to remind you all of these very important points about lab testing:

A single lab value tells us very little.

Multiple tests, combined with your history and symptoms are necessary to paint the entire picture. In certain cases a single lab value can indicate a pathology but for most women with hormonal imbalances we need multiple tests to see not only the pattern but also to discover the underlying cause and thus best course of action for you to feel your best.

And please be very warry of online lab interpretation services that merely have you punch in your numbers or email your lab values in a PDF and kick out a list of supplements to take. Your physiology, as you suspected, is a lot more complicated than that! This leads not only to spending money on unnecessary supplements but also to chasing your tail trying to feel better.

Again, understanding the underlying cause is key so you can make targeted interventions and that take your current symptoms, current medical conditions, your health history, your goals and your genetics into account.

For example if your fasting glucose is elevated what's up with that? Need a lower carb diet? Are you insulin resistant? Are you super stressed out? Was this a onetime deal? Looking instead at a fasting glucose, hemoglobin A1C or fructosamine, fasting insulin and a cortisol profile would tell us exactly why your glucose was high and the treatments would be different depending on the cause. Catch my drift?

Your labs tests are as useful as their interpretation.

Many, many, many women urge their doc to order extensive testing based on a blog written by an expert on the internet (like me!) and they are successful in getting the tests but now have pages of lab values that show nothing obvious per standard lab values. So now what? You've got scads of data but still no action plan on how to feel better.

Remember that functional medicine doctors will not only view more than a single lab test to find the underlying cause but they will also use a tighter lab range in most cases. So while you may be within normal for conventional ranges you may be out of the optimal range so your doc says "all good" and again left with a lot of info but very little understanding of what to do.

Your labs matter AND your symptoms matter.

Your symptoms matter regardless of what a lab test says. Your hormones are talking to you all day via your symptoms.

If you haven't taken stock of your symptoms be sure to take my free quizzes on my website and get some totally free guidance for what they're telling you.

Understanding your hormone talk gives you of what your symptoms tell you allow you to better track your diet, lifestyle and exercise interventions. Plus they will tell you when they hate what you're doing! So you can make real time adjustments and feel better. Finally, if you KNOW something is off but you're getting nowhere, find another provider. You know you best.

OK, now let's talk testing. Unless otherwise noted the values are functional values vs. the standard lab ranges (which will be printed on your lab report). Lab values will vary across the country depending on your lab location. As well, when you're comparing lab testing be sure you're using the same units. For example mg/mL can't be compared directly to say mmol/mL. Online converters are available, just Google!

While most hormone gurus will talk about hormone test values first, I don't. Here's why:

There are a few hormonal deal breakers like inflammation, blood sugar problems, anemias, that will make all hormonal issues worse so they need to be dealt with at very least in conjunction with your hormones but ideally first in my opinion so let's start there. These are crucial to resolve whether you are taking hormones, herbal hormone support or just trying to improve your overall health and hormone balance. So don't skip these!

Inflammation

hs-CRP 0.0 – 3.0 mg/mL (ideally below 1.0 mg/mL)

This test is not routinely done but is a great – necessary in my opinion – addition to any hormone panel or investigation into any health issue. It's a marker of inflammation and as I always say inflammation is the great hormone mess maker! We have to look at this any time we have a question about hormones. In fact it's one of the biggest things I see *abnormal* when hormone tests are normal but you still have a lot of low hormone symptoms.

All that said, this is not a perfect test and it can be normal even when you still have inflammation so other lab testing as well as your symptoms are still very important.

Other markers of inflammation include elevated ferritin or elevated ESR (aka sed rate).

Blood Sugar Testing

Typically the only blood sugar screening done is fasting glucose which tells us very little. If it's elevated it's of concern, but why? And the why matters as I said above because the cause will dictate a very different treatment approach.

Ideally to fully assess your blood sugar you'll at least have a fasting glucose, HgA1c or Fructosamine as well as **monitoring blood glucose at home** and possibly a fasting insulin as well. This may seem like a lot! But as I said above blood sugar is a deal breaker, more on why below.

Fasting glucose 75-83 mg/dL optimal

Below 75 can point to hypoglycemia although not diagnosed until level is as low as 65. This misses many women who are struggling with low blood sugar in the mornings and dealing with low appetite for high protein breakfasts or cravings for starchy carbs for breakfast – **which only leads them to crash mid-morning or fight their ACES all day long.**

Pre-diabetic range is 99 to 120mg/dL and diabetes above 120mg/dL.

Longer term glucose markers: HgA1C and Fructosamine

> **HgA1C** 4.5-5.3 mmol/mol (considered a 3 month marker, vs. fasting glucose which is literally that day)
> **Fructosamine** 200-285µmol/L (2-3 weeks marker)

HgA1C is a great test and I use it regularly, but there is a consideration that's a very common problem and that's low hemoglobin. So many women have subpar hemoglobin levels and this can give a falsely low reading of HgA1C. Fructosamine on the other hand needs an adequate level of albumin (above 5.0g/dL) which is less likely to be low than hemoglobin.

Fasting Insulin < 25 mIU/L

A combo of the above tests as well as **watching your between and post meal symptoms** and ideally in combination with some home readings that demonstrate your **2 hour post meal glucose** will really give you the whole picture.

Too much?

Perhaps but blood sugar is a bit complex and very difficult to assess using only fasting glucose. And how you respond to the food you eat is in many ways more important than just what your glucose is morning at the lab, but yes requires you sticking your finger a few times till you figure out what's going on.

But blood sugar is truly that important to your hormonal landscape as it's a good indication of what's going on with two of your most important hormones: insulin & cortisol.

I often say insulin and cortisol are the only hormones I want you to worry about. And while I get it that your elevated free testosterone may be causing you to breakout and that low progesterone is

making your PMS insomnia almost unbearable and that estrogen dominance is making you gain weight and have painful breasts or your low thyroid is making your hair fall out, and all of these hormones matter but guess what? They are all so significantly impacted by cortisol and insulin that we will almost always fall short of you getting better or at least better for more than a quick short term without addressing them.

To understand this more check **out this** post and this **one too.**

Insulin and cortisol are important for two other big reasons:

> **#1** They talk to you all day via your ACES: appetite, cravings, energy and sleep.
> **Check this post to learn more.**
>
> **#2** You have the most control over these two hormones within your daily life as you choose what to eat, how to exercise, how you prioritize sleep and how you manage your stress. It doesn't always feel like we have control over our busy lives or what we put in our mouth, but truth be told we do have a lot of control here.

If wrangling it all just feels so overwhelming for you, that's what the 5 Pillars were created for and it's what Sarah Fragoso and my work together is all about.

Learn more about the 5 Pillars **here** and get on the wait list for our next group and we'll teach you exactly **how to manage your ACES and your mindset.**

Or if you feel like mindset traps such as it's too hard, why can't I just eat what my girlfriend eats, this is so unfair, feeling super guilty after eating something that doesn't work for you and letting that lead you way off track for way too long, or wondering why after all your efforts don't you look like her then get into my **21 day Misery Maker program** and get the tools to transform these Misery Makers for good.

Assessing Anemias: Oxygen is a very big but sadly underrated deal for your hormones!

This is another hormonal and metabolic deal breaker and grossly under-assessed on routine screening. Anemias lead to low hemoglobin and the wrong sized red blood cells and thus low oxygen delivery to your cells – including the cells that make and respond to your hormones.

Anemias can be due to deficiencies in iron or B12, folate and/or B6. And while taking iron or B vitamins in excess when you don't need them is a big no-no, in functional medicine we often address sub-clinical anemias before they become overt as oxygen is just that vital to your health, mental clarity, stamina, metabolism and hormone balance.

Iron Assessment:

CBC Indices Functional Ranges:

> RBC 3.9—4.5 for women
> Hemoglobin 13.5 – 14.5 g/dL for women
> Hematocrit 37-44% form women
> MCH 27.7-32 pg
> MCV 85-92 fL
> MCHC 32-36 g/dL

Iron Testing Functional Ranges:

> Iron 85-130 µg/dL
> Ferritin 10-122 ng/mL pre-menopause (most practitioners prefer it to be at least 50)
> Ferritin 10-263 ng/mL post-menopause
> TIBC 250-350 ug/dL (this is very useful and rarely done!)

Low RBC, low hemoglobin, low hematocrit and low MCV will show your red cells are getting smaller and thus less able to adequately deliver oxygen. This pattern points to low iron. Low ferritin and elevated TIBC will also show low iron and thus a subclinical or overt iron deficiency anemia.

B12/Folate Assessment

Use the RBC indices above as well as homocysteine to assess these unique and vital B vitamins.

I'm not going to lie, this is actually quite complicated to figure out as our testing often shows us these B vitamins are an issue but supporting you appropriately given such common genetic variants such as MTHFR make this one more dicey. But at least you'll know with these tests that there is an issue with these certain B vitamins and likely your methylation.

Homocysteine ideal ranges between 6 and 7 µmol/L (conventional ranges 0-15)

This test is rarely done in conventional circles as they feel it's an outdated test for cardiac risk since we have newer testing such as hs-CRP, but it's a very useful assessment of methylation and ideally the value is between 6-7. Many will say "lower is better" but when it's too low or two high it can be problematic for your metabolism, hormone balance, brain health and energy levels.

Like so many tests, this one is not perfect and not the only way to assess methylation status and without knowing your unique methylation genetic defects or other metabolic markers of methylation it can be hard to interpret, but it's easy accessible by any conventional lab so it's a good marker to watch.

Low RBC, low hemoglobin, low hematocrit with elevated MCV will show B12 and folate issues as red cells are getting bigger and having trouble delivering oxygen to tissues. Both large and small red blood cells have a hard time delivery oxygen. Elevated homocysteine above 7 will also in point to B12 and folate needs although finding the right dosing is tricky and it's suggested you work with someone to fine tune doses of these nutrients.

And with either scenario, low iron or low B12/folate, knowing the problem is the first step but always be working to find out WHY they are low: poor intake, poor digestion, other nutrient deficiencies (i.e. iron needs vitamin C to be absorbed and B6 to be utilized) and genetic issues that may be contributing.

Thyroid Testing

Typically a screening TSH is the only thyroid testing done without requesting additional investigation. Often insurance will not cover additional thyroid testing without an abnormal TSH so please speak with your doctor about getting a thorough thyroid evaluation or find a practitioner who can help. Oh so many women suffering from low thyroid hormone levels have assumed their thyroid was been adequately tested but they've only had a TSH test done which is very inadequate.

For more on the trouble with testing TSH only please see **this post.**

A thorough thyroid evaluation includes:

> TSH
> Free and total T4 (free only if you're on medication)
> Free and total T3 (free only if you're on medication)
> T3Uptake
> Reverse T3
> TPO and TG/TAA antibodies

TSH 1.8 -3.0 µIU/L if not on medications, 0.5 to 2 µIU/L if on medications
Note that standard lab ranges on this test are 0.0 to 4.5 or even 5.5 which is much broader than this functional range.

TSH is the pituitary hormone that signals the thyroid to make more thyroid hormones (T4 mostly and small amount of T3). Elevations in TSH point to hypothyroidism but lower values can indicate a problem as well. And perhaps most important for you to know about this test is that your thyroid hormones can be low even *without your TSH being* elevated thus testing beyond TSH is vital for you to adequately asses how your thyroid is doing – especially if you have low thyroid symptoms.

Have you taken my low thyroid quiz? If not do that now!

Next I'll cover the full thyroid panel testing and values and then point out some patterns to look for:

All Functional Ranges:

Total T4 6-12 ug/dL
While T4 is not the active form of thyroid hormone, this test shows you the horsepower of your thyroid and is very useful if you are not on thyroid hormones.

Total T3 100-180 ng/dL
This is the active thyroid hormone, made from T4. If this is low and T4 is adequate you know you have a conversion problem not a need for more medication problem. Conversion is slowed from nutrient deficiencies (i.e. zinc, selenium), from oxidative stress, inflammation and elevated cortisol.

Free T4 1.0-1.5 ng/dL
Free T3 3.0-4.0 pg/mL
These are the free and thus active hormones so these need to be high enough, but not too high. Excess estrogen (HRT, estrogen dominance, birth control, etc.) will drive free hormones down and excess testosterone (often seen in PCOS or if on testosterone replacement) will drive them up. Which sounds good but thyroid receptors can get resistant if levels are too high and thus there's still a net low thyroid effect.

These numbers can also be elevated when your medication dose is too high.

You can also assess free levels by watching TBG (thyroid binding globulin) which should be 18-27 ug/mL.

T3Uptake 28 -38%
This is a measure of how much T3 is begin taken up by a cell. This can be an indication of free hormones levels or of receptor and cellular health.

TAA antibodies above lab range is considered positive for Hashimoto's

TPO Antibodies functionally we like to see below 15

TAA <1.0

Reverse T3 9.2 - 24.1 ng/dL
Inflammation and high stress will drive up this unusable form of T3 giving you less thyroid hormone overall and likely low thyroid symptoms. Reverse T3 will also clog up your receptors for any active T3 that is around, so this is a very important marker whether you are taking thyroid medications or not.

This again, like conversion issues or excessive binding proteins driving free hormones down, is not a cause for more medications but rather addressing the cause of these unique thyroid patterns. And again it can't be seen with a TSH alone.

Looking at reverse T3 closer: the ration of the amount of reverse T3 to either your total or free T3 is very important:

> Ratio of free T3 to reverse T3 should be 20 or higher
> Ratio of total T3 to reverse T3 should be 10 or higher

Thyroid Patterns to Consider:

Below are a few patterns to consider as you look through your more thorough thyroid lab testing. Keep in mind as you aim to match these up that you can still have binding globulin issues, conversion of T4-T3 issues as well as problems with too much reverse T3 in addition to the patterns below.

TSH Normal + Free T3 & Free T4 normal and negative Hashimoto's antibodies:

This is a normal thyroid panel, but do be sure you're using optimal ranges especially if you have symptoms of low thyroid. If you do have a lot of low thyroid symptoms the next thing to consider is other causes for your symptoms such as blood sugar dysregulation, inflammation, cortisol issues, anemias and mitochondrial health.

TSH, T4 and T3 testing is all normal but your Hashi antibodies are positive:

Considered Euthyroid with Hashimoto's, meaning your thyroid is still making enough thyroid hormone to give you normal testing and likely not excessive low thyroid symptoms. However Hashimoto's antibodies being positive can create low thyroid symptoms in their own right. As well so it's wise to address the immune system activation and protect your thyroid, prevent other autoimmune diseases as well as improve how you feel. This is not a case for thyroid medications but rather addressing the immune imbalance.

TSH normal or below 1.8 + Total OR Free T3 & T4 low with or without Hashi antibodies positive:

There may be suppression of your pituitary due to stress, certain medications, inflammation, birth control use (past or present) or other reasons and thus it's not sending out a strong enough signal even though thyroid hormone levels are low. Wise to address both the cause of the pituitary suppression as well as the activation of the immune system if the Hashi antibodies are positive.

TSH elevated + normal Total or Free T4 and T3 with or without Hashi antibodies positive:

This is subclinical hypothyroidism and shows that your thyroid is becoming less effective at making thyroid hormones (i.e. needs more stimulation to get the job done). Address autoimmunity if Hashi antibodies are positive.

TSH low + normal Total or Free T3 and T4 with or without Hashi antibodies positive:

Also subclincial hypothyroidism but in this case the pituitary is not sending a strong signal to the thyroid and it's not producing much hormone. This may be waxing and waning of Hashimoto's or possibly early stage of Grave's disease so get TSI antibodies checked. This pattern can also occur when medications need to be adjusted (consider overmedication).

TSH elevated + low Total or Free T4 and T3 with or without Hashi antibodies positive:

This is hypothyroidism and your thyroid is being stimulated but is not making adequate amounts of hormones. Discuss options with your doctor for both medications and addressing all other thyroid patterns that may arise with regards to the impact of inflammation, oxidative stress, cortisol and blood sugar problems, nutrient deficiencies, etc. to optimize your thyroid function and/or medications.

TSH low + elevated Total or Free T3 or T4:

This is hyperthyroidism and can be from a transient Hashimoto's flare, over medication or Grave's Disease. Be sure to assess all thyroid antibodies: TSI, APO and TG/TAA or work with your prescribing doctor to adjust medications.

Female Hormone Testing

Female hormones can be tested via blood, saliva or urine and they should always be considered in light of all the testing we've already covered. As well, female hormone levels will vary widely throughout the month so if you're cycling they need to be assessed on specific days of your cycle.

What's often more important than a blood value of a female hormone are things such as:

Values of the various forms of estrogen including estradiol, estriol and estrone as well as how your estrogen is being metabolized (i.e. into safe or potentially harmful metabolites)

Various more active metabolites of testosterone such as DHT or other androgens such as androstendione instead of just a testosterone value. Especially if you have PCOS.

Precursor hormones such as 17 OH progesterone or pregnenalone.

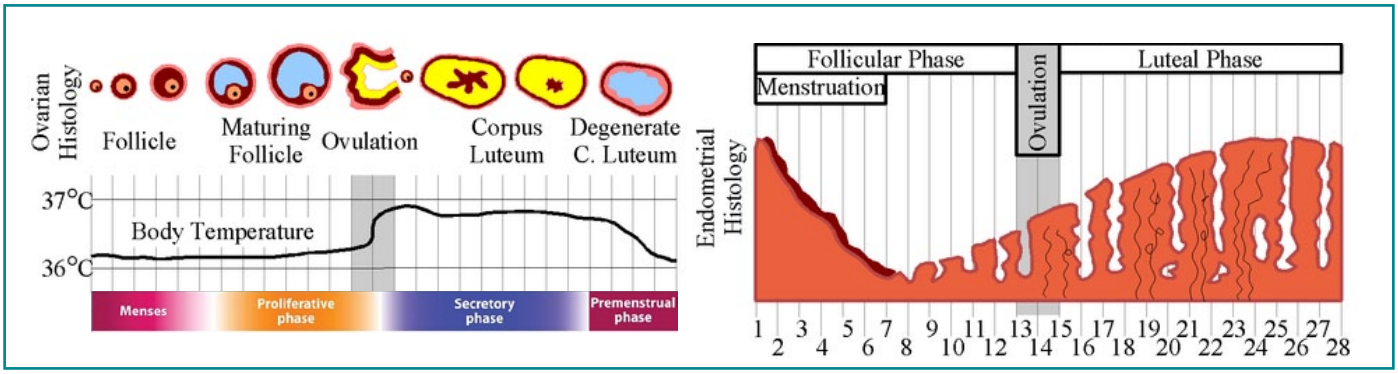
All of the above are routinely assessed when you work with functional medicine provider and not typically done in the conventional medical model. You can utilize various labs to obtain this info including salivary profiles and urine testing from labs such as Diagnostechs, Genova or via the DUTCH test. **Contact my office for more info**

These various testing methods will have different normal ranges so best to refer to each individual lab for more info. Below I'll cover common hormone tests done via blood testing.

FSH & LH (day 3 of cycle)

Pituitary hormones that stimulate the ovaries to make estrogen, ovulate and then make progesterone. The hypothalamus and pituitary gland in the brain send signals to our glands to orchestrate our hormonal system, often are directly stimulating production of a gland to make a hormone i.e. thyroid, estrogen, progesterone, etc. We covered on such hormone: TSH above.

The two that coordinate estrogen and progesterone release from the ovaries are follicle stimulating hormone (FSH) and luteinizing hormone (LH).



Reminder: day 1 of your cycle is first day of bleeding, not the first day after your period. If you spot leading up to a more full period do not count those, just count full period day. If you only spot and do not have a full period then you do count the spotting days as day 1 AND be sure to watch other signs of ovulation (i.e. cervical position, cervical mucous, etc.) and hormone fluctuations.

FSH stimulates the follicles to release estrogen, one of those follicles will dominate and ovulate in an ovulating woman with healthy, normal follicles. LH stimulates ovulation and thus release of both an egg from the follicle and progesterone from the corpus luteum.

FSH Values:

> Menstruating women 4.7 to 21.5 mIU/mL (4.5 to 21.5 IU/L)
> Post-menopause 25.8 to 134.8 mIU/mL (25.8 to 134.8 IU/L)

LH Values:

> Follicular phase of the menstrual cycle: 1.9 to 12.5 IU/L
> Mid cycle peak women 8.7 to 76.3 IU/L
> Luteal phase of the menstrual cycle 0.5 to 16.9 IU/L
> Post menopause 15.9 to 54.0 IU/L

Elevated values of both hormones can indicate egg quality issues or perimenopause. Women with PCOS often have elevated LH throughout the cycle or at abnormal times during the cycle.
Values are important and cycle day needs to be taken in to account BUT the ratio of LH to FSH is also very important.

LH: FSH Ratio

> Normal is typically 1:1. If LH is double FSH value this can be an indication of PCOS.

Estrogen day 3 of the cycle 25-75 pg/ml

Elevations over 80 on day 3 can hinder ovulation (suppression of FSH). This can be a sign of faulty follicles that developed early or were left over from the cycle before or can be a sign of a functional cyst. If elevated during perimenopause it can make a higher FSH associated with hormone decline a bit murky to see.

Low estradiol can be seen in menopause or with low ovarian reserve or non-ovulatory PCOS

Progesterone day 19 of cycle (or 7 days post ovulation if you ovulate late)
Higher than 15 ng/ml strong indicator of ovulation

Pg/E2 Ratio
Ratio of estrogen to progesterone (Pg/E2 ratio) can also be helpful. It should be between 100-500.

When you try to calculate this ratio be sure your estrogen and progesterone values in the same units and use online calculators such as **this:**

This ratio is a parameter used to determine hormonal dominance in patients with results within normal ranges of progesterone and estradiol (measured in luteal phase of the menstrual cycle):

> Lower ratios indicate lower progesterone vs. estrogen thus estrogen dominance
>
> Elevated is progesterone dominance or at least relatively low estrogen
>
> When this ratio is less than 200 symptoms of hormonal imbalance can quickly arise.

Androgens

While typically testosterone is the only androgen tested in women and typically only in cases of PCOS or perhaps perimenopause, various androgens can be evaluated in blood testing and they are all important in women with PCOS.

Women with PCOS can have issues with one or more androgens and it is not always an elevation in testosterone but rather some of the others that hinder ovulation and create excess androgen symptoms such as breakouts, hair growth on face, arms, etc. or hair loss at the crowns and temples.

DHEA-S

This is an adrenal based androgen and age needs to be taken into account. It can be converted into testosterone and a bit of estrogen. Elevation of DHEA-S can indicate an adrenal based PCOS issue. Low levels can be seen in inflammation and HPA-axis dysfunction (commonly called adrenal fatigue).

Typical normal ranges for females are:

> Ages 18 to 19: 145 to 395 µg/dL or 3.92 to 10.66 µmol/L
> Ages 20 to 29: 65 to 380 µg/dL or 1.75 to 10.26 µmol/L
> Ages 30 to 39: 45 to 270 µg/dL or 1.22 to 7.29 µmol/L
> Ages 40 to 49: 32 to 240 µg/dL or 0.86 to 6.48 µmol/L
> Ages 50 to 59: 26 to 200 µg/dL or 0.70 to 5.40 µmol/L
> Ages 60 to 69: 13 to 130 µg/dL or 0.35 to 3.51 µmol/L
> Ages 69 and older: 17 to 90 µg/dL or 0.46 to 2.43 µmol/L

You will see it typically on labs as 41.2 – 243.7 ug/dL but use age ranges to know for sure.

Testosterone

Predominantly a male hormone, but it is still important for women. This hormone is important for mental sharpness, libido and maintaining and building muscle. Often elevated in women with PCOS in response to blood sugar swings and insulin resistance. Testosterone is made in various tissues: 25% from ovary, 25% from adrenals and 50% converted in bloodstream from androstenedione.

> Women 19-49 8-48 ng/dL
> Women 50 and over 2-41 ng/dL

Testosterone can also become converted to a very active androgen: DHT which is a common cause of breakouts, hair loss at crown or temples, disrupted ovulation and/or excessive hair growth on face, body, etc. Values for DHT below under Considerations For PCOS.

Free Testosterone

This is testosterone that is unbound to a protein carrier and thus active it is wise to check this as well as total testosterone as there can be a discrepancy between the two accounting for a variety of either low or high androgen symptoms.

> Women 18-30 1-5 pg/mL
> Women 31-40 1-6 pg/mL
> Women 41-50 1-4 pg/mL
> Women 51 and over less than 3 pg/mL

Elevations in free testosterone may be due to low SHBG (sex hormone binding globulin) and that can be tested for as well.
SHBG women, non-pregnant 18-144 nmol/L

Additional PCOS Testing Considerations

Other androgens warrant investigation in PCOS beyond testosterone and like DHEA-S, various androgens can point to which tissues are over-producing these hormones and thus direct more effective treatments.

Androstenedione is produced about 50% ovaries and 50% adrenals

> Women 30-200ng/dL

Dihydrotestosterone is one of the most potent androgens and made in tissues from testosterone:

> Women 20-55 300 pg/mL or lower
> Women over 55 128 pg/mL or lower

Prolactin

It's most well known as a key hormone for breastfeeding but it can be elevated during times of high stress, estrogen dominance and those both occur frequently with PCOS. It can also be elevated due to a pituitary tumor.

> Non-pregnant females 2 to 29 ng/mL
> Pregnant females 10 to 209 ng/mL

AMH: Antimullerian Hormone

Correlates with number of follicles in ovaries, the higher it is the generally speaking the more follicles in the ovary. This test is often used for assess fertility or can be used as evaluation for PCOS. Women with PCOS can have elevated AMH because they have more than average follicles and they secrete more AMH in general.

> PCOS ranges often above 4 ng/mL
> Normal 1.5 – 4.0 ng/mL
> Low 0.5 – 1.0 ng/mL

Whew that's it!

I hope armed with this information you feel more empowered to take the next steps to feel better and have a more productive conversation with your doctor. If you'd like to speak with me about your labs or dig deeper please reach out to me at **drbrooke@betterbydrbrooke.com.** If you have PCOS please reach out to me or get on the waitlist for my next Empowered **PCOS Program.**

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