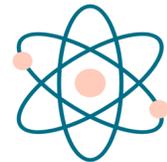


Hey Sarah!

Thanks for trusting Orchid with your at-home fertility & health test. We take pride in providing our customers with the most accurate hormone-testing technology on the market. We'd like to walk you through your lab results hormone-by-hormone.



Keep in mind that your body is able to function because of many complex interactions, and every person is different. Therefore, there is not a one-size-fits-all hormone level for each person.



Lastly, hormone levels naturally vary over time. Our analysis and results are based on data collected from patients with and without symptoms of disease/illness, which allows us to further provide you with the most accurate interpretation of your results.



Tests Performed

Women's Complete Fertility Test

Smart. Empowered. Together.

Follicle-Stimulating Hormone (FSH)

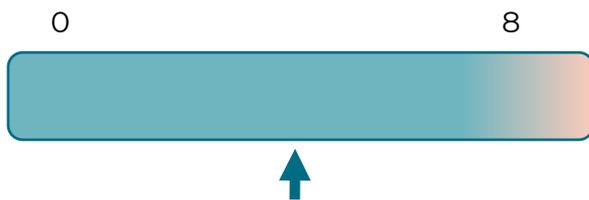
Your measured FSH level was **5.1** mIU/mL This is considered normal.

FSH is produced by the pituitary gland in the brain. In women, FSH signals to the ovaries to produce eggs. If no eggs are being made, FSH levels will continue to rise in an effort to stimulate the ovaries. FSH is largely used in assisted reproductive techniques to stimulate multi-follicular growth (IVF).

What does my level mean for my overall health? What should I do now that I know my result?

When FSH levels are within the normal range, that is a good indicator that your pituitary gland and your ovaries are working well together! FSH is also a reliable predictor of ovarian reserve - a normal FSH level means that there are plenty of eggs left!

To continue to maintain your levels, continue getting a variety of foods in your diet (fruits, vegetables, proteins) and keep up your workout routine. A good exercise goal is 30 minutes per day for 5 days each week!



Did you know?

FSH levels vary throughout your menstrual cycle. That's why it's important to test your hormones on a certain day!



Luteinizing Hormone (LH)

Your measured LH level was **5.5** mIU/mL This is considered normal.

LH is produced by the pituitary gland in your brain. A rise in LH levels triggers the ovaries to release an egg (ovulation). This surge in LH usually occurs 36 hours before you ovulate. In men, LH stimulates testosterone production from the interstitial cells of the testes (Leydig cells).

What does my level mean for my overall health? What should I do now that I know my result?

Great job on your LH levels! This test is important for your fertility because it signals to the ovaries for ovulation to occur.

It's important to keep these hormones in check to optimize your health & fertility. To naturally regulate your LH levels, we recommend getting enough omega-3 (250 mg per day) and exercising regularly (shoot for 150 minutes each week)!



Did you know?

A healthy ratio of FSH to LH levels is about 1:1.



Prolactin

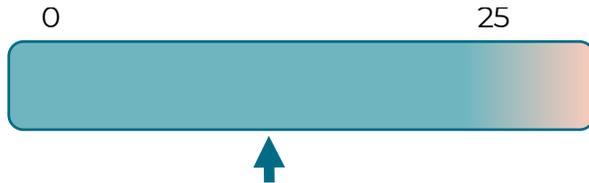
Your measured prolactin level was **121 ng/mL**. This is considered normal.

Prolactin is produced in the pituitary gland in the brain. Prolactin causes the breasts to grow and make milk during pregnancy and after birth. Prolactin levels are normally high for pregnant women and new mothers. Levels are normally low for nonpregnant women and for men.

What does my level mean for my overall health? What should I do now that I know my result?

This test is important for your fertility because excess prolactin can stop ovulation (releasing an egg from the ovaries) from occurring. Your levels look good now, but keep in mind that this hormone is sensitive to small changes in your life.

For example, stress & anxiety, diet changes, and clothing that irritates your chest are all associated with temporarily heightening prolactin. Continue to take care of your mental and physical health!



Did you know?

Studies have shown that getting a pet can reduce stress and cortisol levels!



Estradiol (E2)

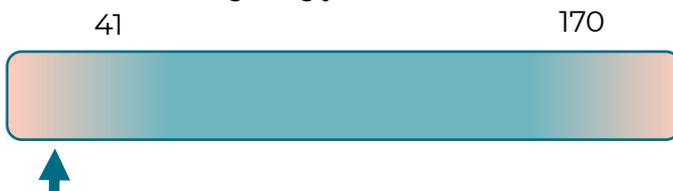
Your measured E2 level was **40 pg/mL**. This is considered low.

Estradiol is a form of estrogen and is primarily made in the ovaries. Estradiol plays a major role in the maturation and release of an egg from the ovaries. It also signals to the uterine lining to thicken to allow a fertilized egg to implant. Estradiol levels drop as women approach menopause.

What does my level mean for my overall health? What should I do now that I know my result?

Low estrogen levels may be a sign that your ovaries are not performing as well as they could be. When estrogen rises, it signals to the pituitary gland to produce LH, which triggers ovulation (release of an egg) to occur.

Even with low estrogen levels, you can still conceive! Treatment options typically include medication and/or modifying your diet. Share these results with your physician to see which option may be the most effective at getting your E2 back on track!



Did you know?

E2 is also produced in the liver, heart, skin, and brain!



Albumin

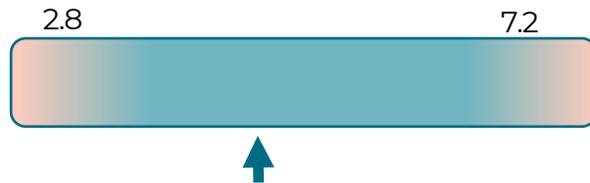
Your measured albumin level was **4.2 g/dL**. This is considered normal.

Albumin helps move small molecules through your blood. It is created in your liver, and it uses osmotic pressure to shuttle fluids throughout your body.

What does my level mean for my overall health? What should I do now that I know my result?

Great job on your albumin levels! This test is important for your overall health because it lets you know that your body's internal transport system is working well.

It's important to keep your albumin levels in check to optimize your health & fertility. To naturally regulate your albumin levels, make sure you are limiting alcoholic drinks and including a variety of foods in your diet!



Did you know?

The total weight of albumin in your blood is about 0.5 pounds!



Sex Hormone-Binding Globulin (SHBG)

Your measured SHBG level was **65 nmol/L**. This is considered normal.

SHBG is produced in your liver, and its job is to move sex hormones (such as estrogen and testosterone) throughout your bloodstream. SHBG moves these hormones by "binding" to them. Hormones in this bound state aren't available for your cells to use; it's your body's way of regulating hormone levels.

What does my level mean for my overall health? What should I do now that I know my result?

The SHBG test is important for your overall health because sub-optimal SHBG levels can increase your chances of developing PCOS. You're levels look good! Keep up the good work!

Studies have shown regular exercise and eating plenty of plant-based carbohydrates to be effective at stabilizing SHBG levels.



Did you know?

Women typically show higher SHBG levels than men.



Hemoglobin

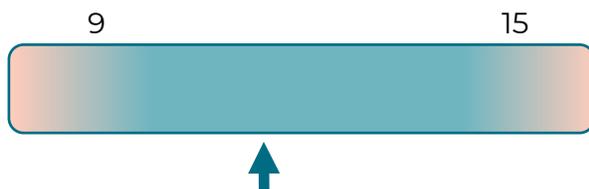
Your measured hemoglobin level was **12 g/dL**. This is considered normal.

Hemoglobin is the protein molecule in red blood cells that helps carry oxygen from the lungs to the body's tissues and returns carbon dioxide from the tissues back to the lungs. Because hemoglobin plays such an important role in the movement of oxygen throughout our bodies, some symptoms of high or low hemoglobin levels are exhaustion, dizziness, and shortness of breath.

What does my level mean for my overall health? What should I do now that I know my result?

Hemoglobin is a good indicator of overall health. Your levels are looking good!

If you're looking for ways to further stabilize your hemoglobin levels, try reducing or eliminating sugar and starches from your diet - and continue to exercise regularly!



Did you know?

Men usually have higher hemoglobin levels than women.



Hematocrit

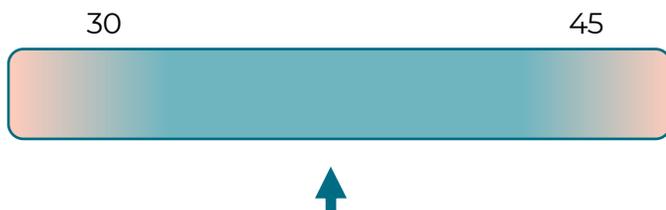
Your measured hematocrit level was **36%**. This is considered normal.

Blood is made up of solids and liquids. The solid portion consists of red blood cells, platelets, and white blood cells. Hematocrit is the percentage of red blood cells in your blood sample.

What does my level mean for my overall health? What should I do now that I know my result?

Hematocrit is usually included with a complete blood count (CBC) test. A normal level means that your red blood cells are healthy! Red blood cells don't directly impact fertility, but they are another piece to the puzzle that is your overall health.

To continue to maintain your levels, focus on having a diet consisting of red meat, fish, green leafy vegetables, and dried fruit!



Did you know?

In general,
 $\text{hematocrit} \div 3 = \text{your hemoglobin level}$



Free, Bioavailable, and Total Testosterone

Your measured free testosterone level was **10** pg/mL. This is considered low.
Your measured bioavailable testosterone level was **10** ng/mL. This is considered low.
Your measured total testosterone level was **40** ng/mL. This is considered low.

Testosterone plays a significant role in sex drive as well as sperm production in men. Testosterone levels also impact mood, bone health, and how your body stores fat.

What does my level mean for my overall health? What should I do now that I know my result?

Great job with your testosterone levels! Remember that testosterone naturally decreases as you age, but exercising and keeping a healthy diet can help maintain testosterone levels!

Looking for more ways to keep your testosterone stabilized? Studies have shown that getting enough sleep (shoot for 8-9 hours each night) and taking steps to reduce stress and anxiety (give yoga a try) can help!



Did you know?

In women, testosterone is made in the ovaries.



Progesterone

Your measured progesterone level was **5.1** ng/mL. This is considered normal.

The role of progesterone in overall fertility health is that it helps prepare the uterus for pregnancy. Many people don't realize that progesterone also functions as a precursor in our body to produce testosterone, while also acting as a balance to decrease estrogen. Maintaining a balance between testosterone, progesterone, and estrogen is key to fertility health.

What does my level mean for my overall health? What should I do now that I know my result?

After ovulation, progesterone levels rise, which helps prepare the uterus for the possible implantation of a fertilized egg. A normal progesterone level means that you successfully ovulated (congrats!).

Some additional steps that you can take to stabilize your progesterone levels are to (1) up your intake of vitamins B & C and (2) take steps to curb your stress and anxiety (which could lower your progesterone levels).



Did you know?

Progesterone levels rise and fall throughout a woman's menstrual cycle.



17-Hydroxyprogesterone (17-OHP)

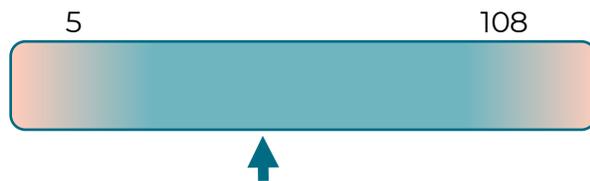
Your measured 17-OHP level was **37 ng/dL**. This is considered normal.

17-OHP is a hormone made by your adrenal glands. 17-OHP can also be converted in the stress hormone, cortisol (more details on this hormone below). Enzymes are used to convert 17-OHP into cortisol. If these enzymes are not present in your body, you won't be able to make enough cortisol and your 17-OHP levels would be elevated.

What does my level mean for my overall health? What should I do now that I know my result?

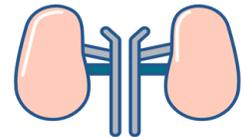
17-OHP is typically inversely correlated with your cortisol levels - when one is high the other is low. Since your 17-OHP levels are normal, this is a sign that your cortisol levels are also normal.

17-OHP is another hormone that gives us insight into your overall health. To continue to maintain your levels, continue getting a variety of foods in your diet (fruits, vegetables, proteins) and keep up your workout routine.



Did you know?

17-OHP is a steroid hormone made by your adrenal glands, which are located right above your kidneys.



Dehydroepiandrosterone-Sulfate (DHEA-S)

Your measured DHEA-S level was **210 µg/dL**. This is considered normal.

DHEA-S levels give you insight into how well your adrenal glands are working. DHEA-S aids in the production of testosterone and estrogen - two critical hormones in your overall fertility! We measure DHEA-S (and not DHEA) because there is 1,000 times more DHEA-S molecules in your blood than just DHEA, making it easier to measure.

What does my level mean for my overall health? What should I do now that I know my result?

Your DHEA-S levels are looking good! Normal levels mean that your body's adrenal gland is performing well. Keep in mind that as you age, your DHEA-S levels will naturally fall.

It's important to maintain DHEA-S levels to optimize your health. To ensure that your adrenal glands continue to function well, make sure you're getting enough sleep (8-9 hours each night) and get those workouts in!



Did you know?

DHEA-S was first discovered in 1954 (about 70 years ago!)



Androstenedione

Your measured androstenedione level was **115 ng/dL**. This is considered normal.

Androstenedione is a weak male sex hormone that is naturally made in your body. Androstenedione is produced in the ovaries. In women, the blood concentration of androstenedione is typically greater than the concentration of testosterone.

What does my level mean for my overall health? What should I do now that I know my result?

When androstenedione levels are normal, it is a sign that your ovaries are functioning well! It's also an indicator that your testosterone and estrogen levels are in balance (which is great for fertility!).

To continue to maintain your levels, continue maintaining a varied diet of leafy vegetables and fruit keep up that exercise routine!



Did you know?

Androstenedione is a steroid hormone used by the body to make testosterone and estrogen.



Cortisol

Your measured cortisol level was **12 µg/dL**. This is considered normal.

Cortisol is a steroid hormone produced by the adrenal glands. Whenever you experience something your body perceives as a threat, like a large dog barking at you, a chemical known as adrenocorticotropic hormone (ACTH) is released in your brain. This triggers your adrenal glands to release cortisol and adrenaline.

What does my level mean for my overall health? What should I do now that I know my result?

When cortisol levels are within the normal range, that is a good indicator that your pituitary gland is working well! A normal cortisol level is also a sign that you have a good handle on your stress and anxiety levels.

Keep in mind that cortisol levels vary throughout the day, so it's important to continue to take steps to reduce stress. Some great options are picking up yoga and adopting a pet!



Did you know?

Cortisol is the main hormone involved in stress and the fight-or-flight response.



Insulin-like Growth Factor 1 (IGF-1)

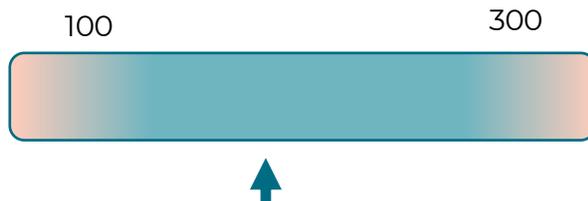
Your measured IGF-1 level was **130** ng/mL. This is considered normal.

Growth hormone (GH), a chemical that is produced by your pituitary gland, plays an important role in maintaining muscle mass and regulating your metabolism. You have probably heard of HGH (human growth hormone) which is the same thing as growth hormone. IGF-1 levels are a good indicator of growth hormone levels. Since growth hormone levels vary throughout the day, we measure IGF-1 (which varies a lot less day-to-day).

What does my level mean for my overall health? What should I do now that I know my result?

Great job on your IGF-1 levels! This test is important for your overall health because it is a sign that your body is able to continue to grow and develop new bones and tissues.

If you're looking for ways to further stabilize your IGF-1 levels, try reducing or eliminating sugar and starches from your diet - and continue to exercise regularly!



Did you know?

IGF-1 levels tell you about your growth hormone levels



Relationship Between Test Results & Conditions

Hormone	Conditions		
	PCOS	POI	Perimenopause
FSH	high	high	high
LH	high	high	--
Prolactin	high	high	--
Estradiol	low	low	low
Albumin	--	--	--
SHBG	low	--	--
Hemoglobin	--	--	--
Hematocrit	--	--	--
Testosterone	high	--	low
Progesterone	low	--	--
17-OHP	--	--	--
DHEA-S	high	--	--
Androstenedione	high	--	--
Cortisol	--	--	--

Descriptions of Conditions

Polycystic Ovarian Syndrome (PCOS)

PCOS is a set of symptoms related to hormonal imbalances in women of reproductive age. It affects at least 7% of adult women. It is a complicated condition that is characterized by absence of ovulation (causing fertility issues), elevated androgen (male hormone) levels, and insulin resistance. Researchers know that genetic and environmental factors can play a role in the development of PCOS. Although there is no cure for PCOS, there are many treatment options available, including lifestyle changes and medications (which may temporarily resolve ovulation issues, helping you to conceive!). Follow up with your doctor to create a more detailed action plan!

Primary Ovarian Insufficiency (POI)

POI describes a condition when the ovaries behave abnormally before the age of 40. By abnormal behavior, we mean irregular menstrual periods and reduced fertility (difficulty releasing eggs). You should know that you can still get pregnant if you are diagnosed with POI! About 8% of women diagnosed with POI still get pregnant without medical intervention. Hormone replacement therapy (HRT – usually a combination of estrogen and progesterin oral supplements) is the most common treatment for women with POI. HRT may allow you to start having regular periods again, improving your odds of conceiving. HRT can also improve other symptoms that you may have, such as irritability and poor concentration. Your doctor may also recommend clomiphene to promote the release of an egg. We recommend working with your doctor to determine the best path forward based on your medical history!

Perimenopause

Perimenopause, also known as the menopause transition, comes with many hormonal changes. The menopausal transition usually lasts about 7 years but could last as long as 14 years. Perimenopause usually begins in your 30s or 40s (family history impacts this). During this time, you can still get pregnant! The most common symptom that women experience (who are approaching menopause) is hot flashes. Hot flashes cause your body and face to rapidly heat up, which is uncomfortable for most people and can impact your quality of sleep. Feelings of depression and anxiety are also common during perimenopause. Hormone therapy is a common clinical approach to mood and sleep issues. Review your symptoms and results with your physician so you can create a unique action plan!

Our Recommendations

Take control and improve your fertility by following these helpful tips:



No smoking

Studies have shown that smoking reduces your fertility (and chances of conceiving) by half.



Get moving!

Getting your heart rate up for 30 minutes - 5 times per week can improve your chances of conceiving by 3 times.



Eat those fruits and vegetables!

A healthy diet gives your body the vitamins & nutrients it needs to continue to keep those hormones in balance.



Maintain a healthy weight

Weighing too little or too much can create irregularities with your menstrual cycle. Eat right and get your exercise in!



Limit your alcohol consumption

Studies have shown that alcohol negatively impacts your fertility and puts you at an increased risk of an ovulation disorder.



Get your 8 hours in!

Lack of sleep may interfere with the sperm maturation process. In women, sleep deprivation can impact hormones levels that affect ovulation.



Minimize Stress

It's unclear if stress directly causes infertility, but studies have shown that those with less stress have better chances of conceiving.



Natural Supplements

Check with your primary care physician to see if multivitamins could help get you the necessary nutrients to maximize your fertility!



Limit Caffeine

The jury is still out on the true impact of caffeine on your ability to conceive. But studies have shown that limiting yourself to two 8-oz cups per day may be *just* right!

We're here to support you!



Work with your doctor

Share your results with your doctor, or save them for future reference.



Follow our blog!

Keep up to date on the newest fertility information at orchidcrew.com/learn/



Reach out to us!

Email:
support@orchidcrew.com

Website chat tool

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Physician's Summary of Results

<u>Hormone</u>	<u>Value</u>	<u>Reference</u>
Follicle-Stimulating Hormone (FSH)	5.1 mIU/mL	< 7.9 mIU/mL
Luteinizing Hormone (LH)	5.5 mIU/mL	< 14.9 mIU/mL
Prolactin	121 ng/mL	< 24.8 ng/mL
Estradiol (E2)	40 pg/mL	41 - 170 pg/mL
Albumin	4.2 g/dL	2.8 - 7.2 g/dL
SHBG	65 nmol/L	15 - 120 nmol/L
Hemoglobin	12 g/dL	9 - 15 g/dL
Hematocrit	36%	30 - 45%
Free Testosterone	10 pg/mL	2 - 20 pg/mL
Bioavailable Testosterone	10 ng/dL	4.5 - 55 ng/dL
Total Testosterone	40 ng/dL	20 - 130 ng/dL
Progesterone	5.1 ng/mL	3.3 - 10 ng/mL
17-Hydroxyprogesterone (17-OHP)	37 ng/dL	5 - 108 ng/dL
DHEA-S	210 µg/dL	30 - 310 µg/dL
Androstenedione	115 ng/dL	32 - 230 ng/dL
Cortisol	12 µg/dL	8 - 19 µg/dL
IGF-1	130 ng/mL	100 - 300 ng/mL

To our customer: we recommend that you share these results with your healthcare provider. This test is solely meant for data collection purposes. These results do not diagnose any health condition - only your healthcare provider can make that determination. The performance specifications of all assays have been established and verified by Physicians Lab, Inc. (CLIA Lic. # 10D2147002) and as such, are considered Lab Developed Tests, which are not FDA approved.

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