

DEMO DEMO

Name: DEMO DEMO
Date of Birth: 05-06-1974
Biological Sex: Female
Age: 51
Height: 66 inches
Weight: 140 lbs
Fasting:

Telephone: 000-000-0000
Street Address:
Email:

FINAL REPORT

Accession ID: 2826339165

Provider Information

Practice Name: DEMO CLIENT, MD
Provider Name: DEMO CLIENT, MD
Phlebotomist: 0
Telephone: 000-000-0000
Address: 3521 Leonard Ct, Santa Clara, CA 95054

Report Information

Current Result Previous Result In Control Moderate Risk

Specimen Information

Sample Type	Collection Time	Received Time	Report	Final Report Date
Urine 1st Morning	2024-12-09 13:25 (UTC)	2024-12-11 21:49 (UTC)	Hormone Zoomer - P2	2024-12-30 22:35 (UTC)
Urine 2nd Morning	2024-12-09 15:40 (UTC)	2024-12-11 21:49 (UTC)	Hormone Zoomer - P2	2024-12-30 22:35 (UTC)
Urine Evening	2024-12-10 01:50 (UTC)	2024-12-11 21:49 (UTC)	Hormone Zoomer - P2	2024-12-30 22:35 (UTC)
Urine Night	2024-12-09 06:00 (UTC)	2024-12-11 21:49 (UTC)	Hormone Zoomer - P2	2024-12-30 22:35 (UTC)

INTRODUCTION

Vibrant Wellness is pleased to present to you 'Hormone Zoomer', to help you make healthy lifestyle, dietary and treatment choices in consultation with your healthcare provider. It is intended to be used as a tool to encourage a general state of health and well-being. The Vibrant Hormone Zoomer is a test to measure urinary hormones including estrogens, androgens, progestogens, endocrine disruptors, bone health and oxidative stress. The panel is designed to give a complete picture of an individual's levels of hormones and metabolites along with toxins that can affect hormone functionality and risk markers for bone health metabolites in urine.

Methodology:

The Vibrant Hormone Zoomer Panel uses Liquid Chromatography Tandem Mass Spectrometry methodology (LC-MS/MS) for quantitative detection of Cortisol and Cortisone metabolites, Melatonin, Endocrine Disruptors, Bone Health, Creatinine and Oxidative Stress markers and Gas Chromatography Tandem Mass Spectrometry (GC-MS/MS) for quantitative detection of Estrogens, Progesterone and Androgen metabolites in urine samples.

Interpretation of Report:

The report begins with the list of all adrenal hormones and illustrations, followed by the sex hormones along with corresponding illustrations. The hormones section is followed by endocrine disruptors and bone health metabolites. Reference ranges for each analyte have been established using a cohort of gender and menstrual phase matched 1000 apparently healthy individuals. Additionally, the previous value (if available) is also indicated to help check for improvements every time the test is ordered. For hormones section and bone health metabolites, classification of Red indicates a result that is outside the reference range and the classification of Green denotes a result that is within the reference range. The level of the endocrine disruptors is shown with three shades of color – Green, Yellow and Red. The result in green corresponds to 0th to 75th percentile indicates mild exposure to the respective toxin. The result in yellow corresponds to 75th to 95th percentile indicates moderate exposure to the respective toxin whereas the result in red corresponding to greater than 95th percentile indicates high exposure to the respective toxin. All contents provided in the report are purely for informational purposes only and should not be considered medical advice. Any changes based on the information should be made in consultation with the clinical provider.

The Vibrant Wellness platform provides tools for you to track and analyze your general wellness profile. Testing for the Urinary Hormones panel is performed by Vibrant America, a CLIA certified lab CLIA#:05D2078809. Vibrant Wellness provides and makes available this report and any related services pursuant to the Terms of Use Agreement (the "Terms") on its website at www.vibrant-wellness.com. By accessing, browsing, or otherwise using the report or website or any services, you acknowledge that you have read, understood, and agree to be bound by these terms. If you do not agree to these terms, you should not access, browse, or use the report or website. The statements in this report have not been evaluated by the Food and Drug Administration and are meant to be lifestyle choices for potential risk mitigation. Please consult your healthcare provider for medication, treatment, diet, exercise, or lifestyle management as appropriate. This product is not intended to diagnose, treat, or cure any disease or condition.

Please note:

Please Note: It is important that you discuss any modifications to your diet, exercise, and nutritional supplementation with your healthcare provider before making any changes. The Vibrant America Clinical Support team can only provide basic and generalized interpretation of hormone biomarkers and pathways. It is the Vibrant ordering provider's responsibility to provide comprehensive interpretation and individualized treatment recommendations for hormone lab test results.

Questionnaire Data

BACKGROUND

Date of Birth	1967-06-06	Last menstrual period	N/A	Regular menstrual cycles	NO
Biological sex	Female	Reproductive health status	Postmenopausal	Had a hysterectomy	NO

BONE HEALTH AND TOXIN EXPOSURE

Bone density scan	YES	If yes, scan result	OSTEOPOROSIS		
Experienced any fractures	NO	Exposed to toxic chemicals	NO		

SYMPTOM HISTORY

Hot flashes/night sweats	None	Sleep disturbances	None	Loss of muscle mass	Moderate
Mood swings/irritability	None	Joint pain	Moderate	Difficulty concentrating	None
Fatigue	Severe	Loss of libido	None	Urinary problems	None
Vaginal dryness	None				

MEDICAL BACKGROUND

MEDICAL HISTORY		COMORBIDITIES		FAMILY HISTORY	
Breast cancer	NO	Cardiovascular disease	YES	Cancer	NO
Ovarian cancer	NO	Liver disease	NO	Breast cancer	YES
Endometrial (uterine) cancer	NO	Hypertension	NO	Cardiovascular disease	NO
Stomach cancer	NO	Gallbladder complications	NO	Cerebrovascular disease	NO
Pancreatic cancer	NO	Thyroid conditions	NO	SLE or Autoimmune	NO
Colon or rectal cancer	NO	Obesity	YES	Venous thrombus embolism	NO
Any cancer not listed above	N/A	Type 2 diabetes	NO	Thyroid disease	YES
		Blood clots or venous thromboembolism	YES	Hypertension	NO
		Other	N/A	Other	N/A

TREATMENT CONSIDERATIONS

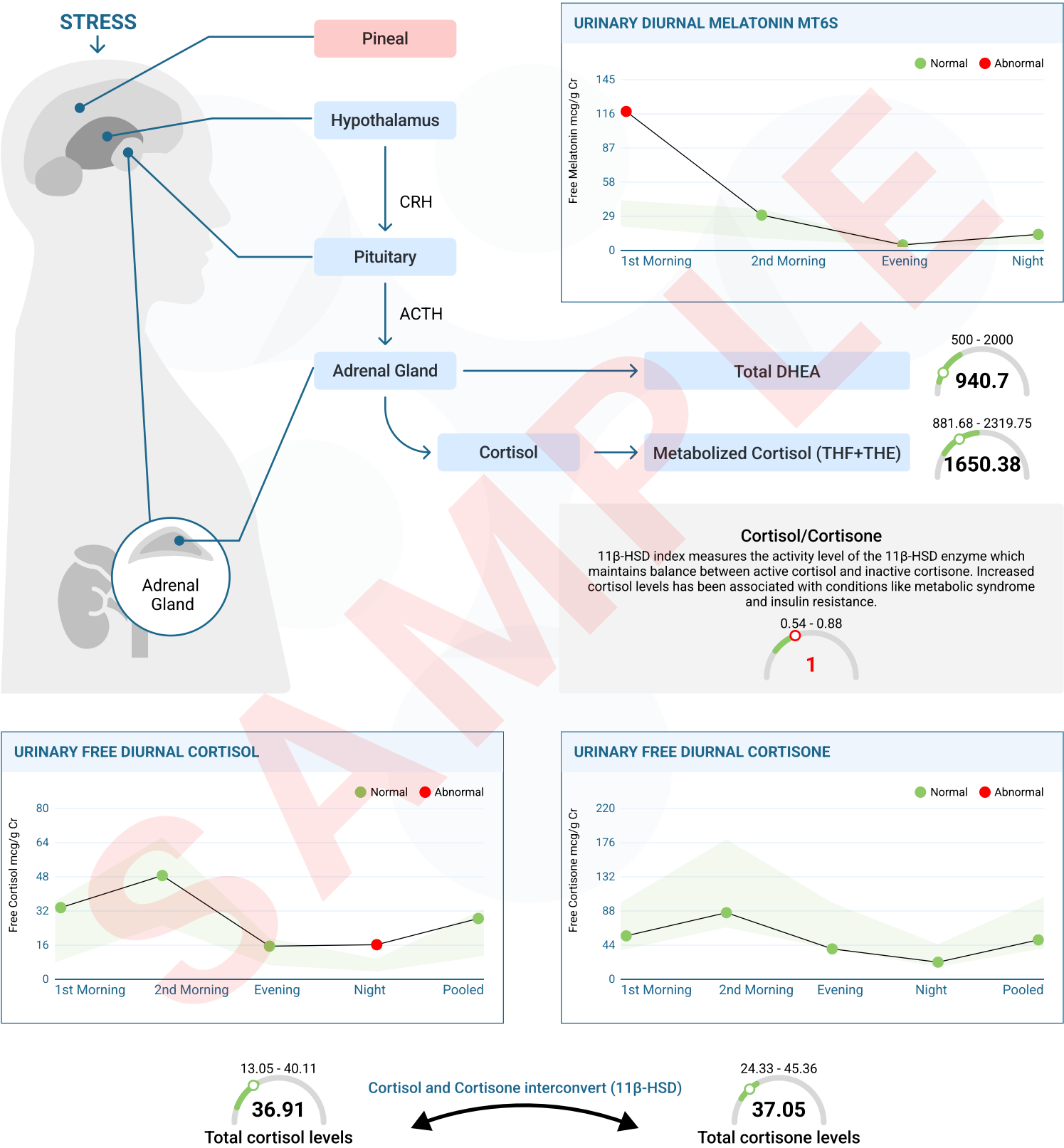
Hormone treatment preference	HRT	Sensitive skin (Affects certain forms of HRT)	NO	Peanut Allergy (Affects certain forms of HRT)	YES
Undergoing HRT and/or taking any medications	NO	If yes, please list and provide necessary details:	Null		

ADDITIONAL INFORMATION


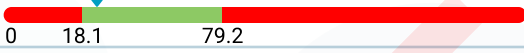

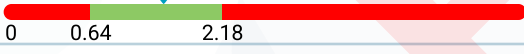



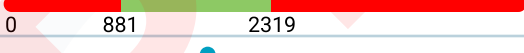


N/A

Adrenal Hormone

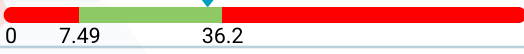




ModerateHigh / Low



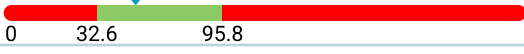

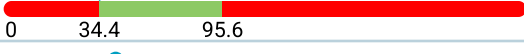

Adrenal Hormones

Test Name	Current	Previous	Result	Reference
b-Tetrahydrocortisol (b-THF) (mcg/g)	670.63			265.2-729.3
a-Tetrahydrocortisol (a-THF) (mcg/g)	24.43			18.12-79.22
b-Tetrahydrocortisone (b-THE) (mcg/g)	955.32			598.36-1511.23
Deoxycorticosterone (mcg/g)	1.49			0.65-2.18
Corticosterone (mcg/g)	3.32			2.18-9.47
DHEA (mcg/g)	27.29			6.77-42.11
DHEA-S (mcg/g)	12.11			5.22-31.78
Metabolized Cortisol (THF+THE) (mcg/g)	1650.38			881.68-2319.75
Total Cortisol (mcg/g)	36.91			13.05-40.11
Total Cortisone (mcg/g)	37.05			24.33-45.36


Diurnal Cortisol

Test Name	Current	Previous	Result	Reference
Free Cortisol (1st Morning) (mcg/g)	33.20			7.5-36.2
Free Cortisol (2nd Morning) (mcg/g)	48.31			24.9-66.4
Free Cortisol (Evening) (mcg/g)	15.05			6.1-18.9
Free Cortisol (Night) (mcg/g)	15.75			3.2-9.2
Free Cortisol (pooled) (mcg/g)	28.08			10.43-32.68

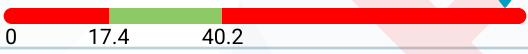



Diurnal Cortisone

Test Name	Current	Previous	Result	Reference
Free Cortisone (1st Morning) (mcg/g)	51.97			32.7-95.8
Free Cortisone (2nd Morning) (mcg/g)	82.45			63.1-179.2
Free Cortisone (Evening) (mcg/g)	34.78			34.5-95.6
Free Cortisone (Night) (mcg/g)	17.26			11.2-40.9

Diurnal Cortisone

Test Name	Current	Previous	Result	Reference
Free Cortisone (pooled) (mcg/g)	46.62			35.38-102.88

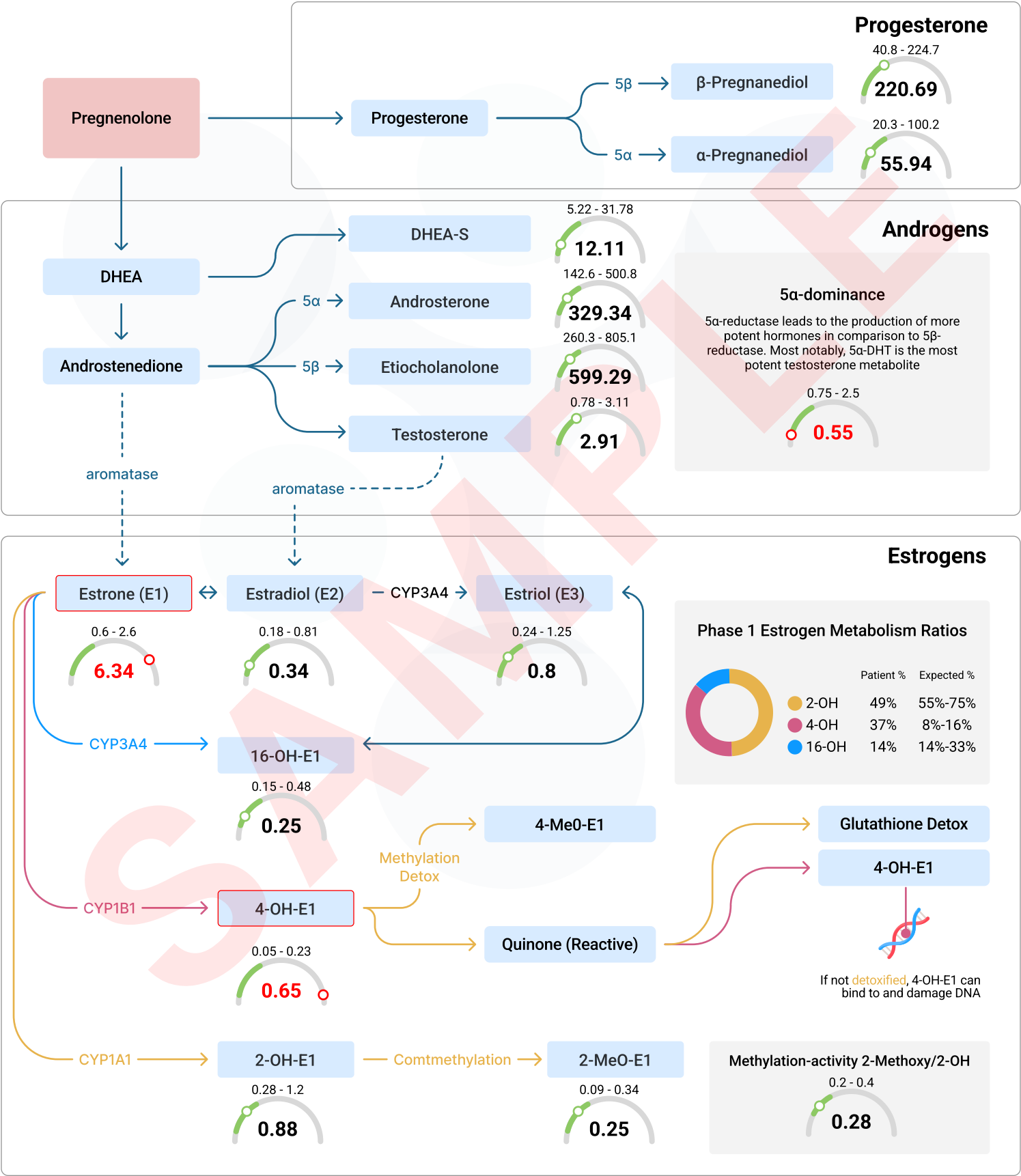
Diurnal Melatonin

Test Name	Current	Previous	Result	Reference
Melatonin (1st Morning) (mcg/g)	117.24			17.5-40.2
Melatonin (2nd Morning) (mcg/g)	27.23			7.1-32.6
Melatonin (Evening) (mcg/g)	1.43			0.87-2.0
Melatonin (Night) (mcg/g)	10.50			1.9-12.3


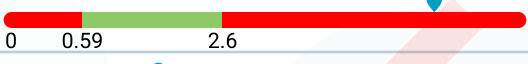
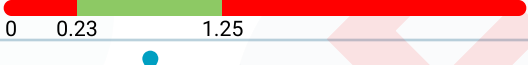
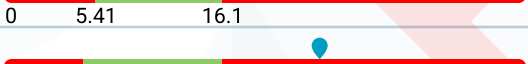
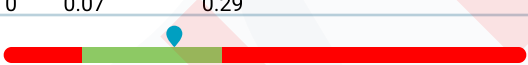
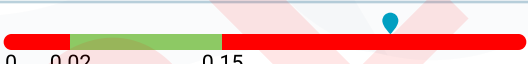
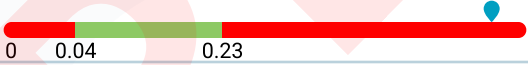
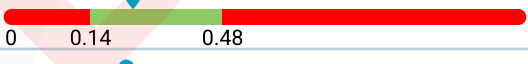
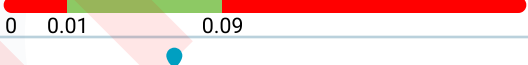
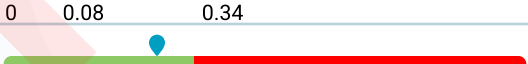


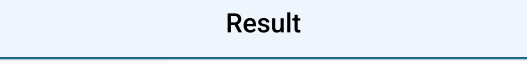
Sex Hormone - Urine

Moderate

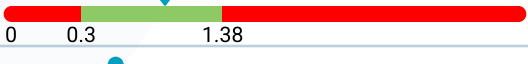
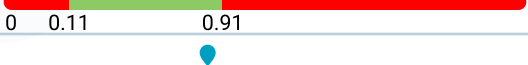
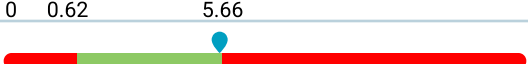
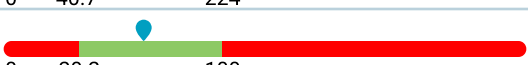

High / Low



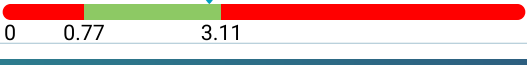
Estrogen

Test Name	Current	Previous	Result	Reference
Estradiol (E2) (mcg/g)	0.34			0.18-0.81
Estrone (E1) (mcg/g)	6.34			0.6-2.6
Estriol (E3) (mcg/g)	0.80			0.24-1.25
Total Estrogen (mcg/g)	9.98			5.42-16.13
2-OH Estradiol (mcg/g)	0.48			0.08-0.29
2-OH Estrone (mcg/g)	0.88			0.28-1.2
4-OH Estradiol (mcg/g)	0.32			0.03-0.15
4-OH Estrone (mcg/g)	0.65			0.05-0.23
16a-OH Estrone (mcg/g)	0.25			0.15-0.48
2-MeO Estradiol (mcg/g)	0.04			0.02-0.09
2-MeO Estrone (mcg/g)	0.25			0.09-0.34
4-MeO Estradiol (mcg/g)	0.04			≤0.05
4-MeO Estrone (mcg/g)	0.10			≤0.05


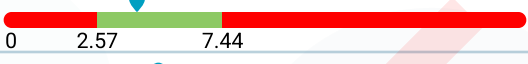
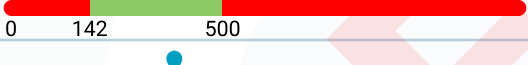
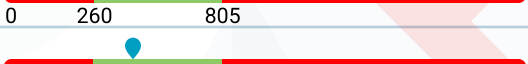
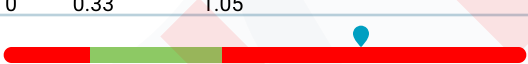
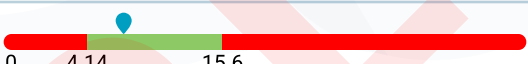

Progesterone

Test Name	Current	Previous	Result	Reference
Allopregnanolone (mcg/g)	0.94			0.31-1.38
3aDihydroprogesterone (mcg/g)	0.35			0.12-0.91
20aDihydroprogesterone (mcg/g)	5.17			0.63-5.66
b-Pregnanediol (mcg/g)	220.69			40.8-224.7
a-Pregnanediol (mcg/g)	55.94			20.3-100.2


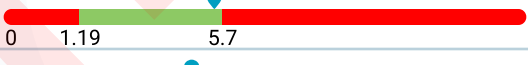
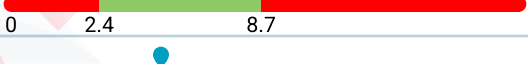
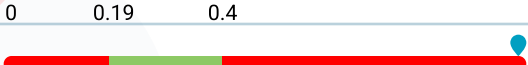





Testosterone

Test Name	Current	Previous	Result	Reference
Testosterone (T) (mcg/g)	2.91			0.78-3.11


Testosterone


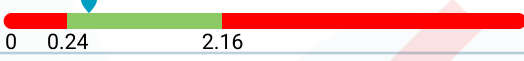

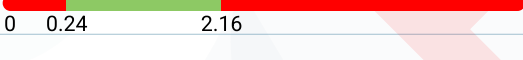
Test Name	Current	Previous	Result	Reference
Epi-Testosterone (Epi-T) (mcg/g)	0.54			0.35-1.25
Androstenedione (mcg/g)	4.11			2.58-7.44
Androsterone (mcg/g)	329.34			142.6-500.8
Etiocholanolone (mcg/g)	599.29			260.3-805.1
5a-DHT (mcg/g)	0.55			0.34-1.05
5a,3a-Androstanediol (mcg/g)	16.65			2.46-8.59
5b-Androstanediol (mcg/g)	7.20			4.15-15.66

Hormone Ratios

Test Name	Current	Previous	Result	Reference
E3/(E1+E2) Ratio	0.12			≤0.4
2-OH (E1 + E2)/16a-OH E1	5.44			1.2-5.7
2-OH E1 /4-OH E1	6.0			2.5-8.7
2-MeO E1/2-OH E1	0.28			0.2-0.4
4-MeO E1/4-OH E1	0.71			0.11-0.23
4-MeO E2/4-OH E2	0.13			0.25-0.42
T/Epi-T	1.32			1.5-4.3
b-Pregnanediol/E2	649.09			226.67-277.41
Cortisol/Cortisone (mcg/g)	1.00			0.54-0.88

Oxidative Stress

Test Name	Current	Previous	Result	Reference
8-hydroxy-2'-deoxyguanosine (8-OHdG) (mcg/g)	4.44			≤4.77

Creatinine				
Test Name	Current	Previous	Result	Reference
Creatinine (1st Morning) (mg/ml)	1.66			0.25-2.16
Creatinine (2nd Morning) (mg/ml)	0.51			0.25-2.16
Creatinine (Evening) (mg/ml)	1.47			0.25-2.16
Creatinine (Night) (mg/ml)	0.53			0.25-2.16

Endocrine Disruptors

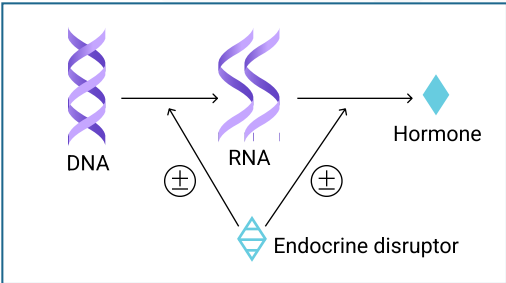
Test Name	Current	Previous	Result		Reference
			75th	95th	
Atrazine ^ (ug/g)	0.98		<div><div></div></div>		≤0.05
			0.02	0.05	

Atrazine is a chlorinated herbicide that prevents pre and post-emergence broadleaf weeds in crops like maize (corn), soybean, and sugarcane, as well as on turf like golf courses and residential lawns. It used to be the most commonly detected pesticide contaminating drinking water. It is an endocrine disruptor and alters the levels of LH, FSH, testosterone, and estrogen. This can result in delayed puberty and reproduction health problems like low sperm motility and changes in the menstrual cycle. Accumulation of atrazine in the body can affect hormonal function, potentially leading to endocrine disorders and other diseases, which necessitates its elimination to minimize this risk.

HORMONE AFFECTED
Estrogen, LH, FSH

Hormone synthesis

Mechanism



The body can control how hormones are made through feedback mechanisms. For thyroid hormones, this process involves a hormone called TSH activating a receptor and the uptake of iodine, along with other intracellular signals that help activate specific enzymes. Proteins and peptide hormones are stored in vesicles after they are made in the body. In the case of steroid hormones, a precursor (prohormone) is turned into an active hormone by various enzymes. However, some chemicals, known as endocrine disruptors (EDCs), can interfere with hormone production; for example, Atrazine has been shown to boost estrogen production in animals, which is linked to lower testosterone levels and higher estrogen levels in the blood. Additionally, Atrazine increases the activity of aromatase, the enzyme responsible for converting testosterone into estrogen.

Endocrine Disruptors

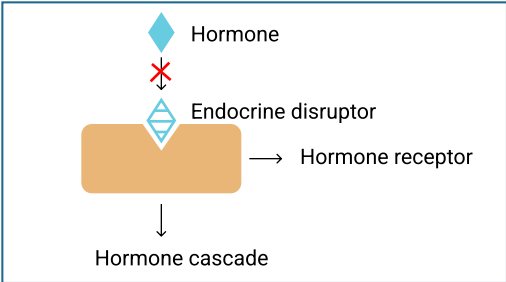
Test Name	Current	Previous	Result	Reference
			75th95th	
Butylparaben^ (ug/g)	0.45		<div><div></div></div> 0.254.39	≤4.39

Butylparaben belongs to the paraben family and is one of the most common antimicrobial preservatives in cosmetics such as such as makeup, moisturizers, hair-care products, and shaving creams. It is also used in medication suspensions, and as a flavoring additive in food. When exposed to high levels of butylparaben via inhalation, irritation to the respiratory tract results; symptoms include coughing and shortness of breath. Ingestion of large doses of butylparaben may cause irritation to the gastrointestinal (GI) tract. Butylparaben is an endocrine disruptor. In animal models, butylparaben increased the levels of TSH and T4. They also reduced the levels of estrogen and estrogen/Progesterone ratio. Parabens bind to estrogen receptors and mimic its activity, which can lead to fertility problems. Accumulation of butylparaben in the body can therefore, affect hormonal function, potentially leading to endocrine disorders and other diseases, which necessitates its elimination to minimize this risk.

HORMONE AFFECTED

Estrogen, Progesterone, TSH, T4

Agonist (mimics hormone function)

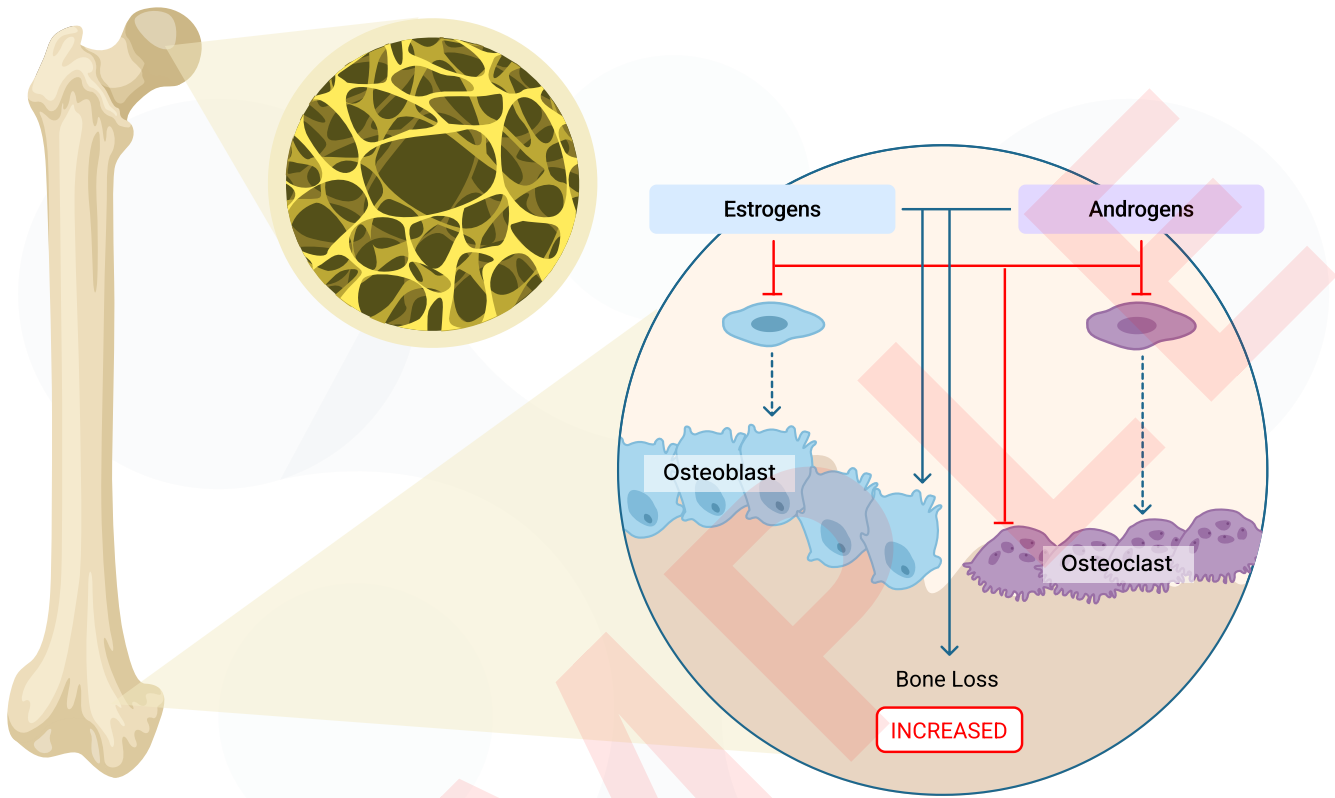


Mechanism

Hormone agonists mimic natural hormones by acting like them. They bind to hormone receptors and trigger similar biological responses. Endocrine-disrupting chemicals (EDCs) act as these mimics, potentially causing harmful effects; Parabens bind to estrogen receptors, imitating estrogen's function and amplifying its effects. This increases breast cell growth, raising concerns about their potential role in breast cancer. Parabens also block the enzyme 17β-hydroxysteroid dehydrogenase, which regulates the conversion between estradiol and estrone, disrupting hormonal balance.

Endocrine Disruptors					
Test Name	Current	Previous	Result		Reference
			75th	95th	
Perchlorate (PERC)^ (ug/g)	4.30		<div><div></div><div></div><div></div></div> <div>4.8910.7</div>		≤10.7
Glyphosate (ug/g)	0.56		<div><div></div><div></div><div></div></div> <div>1.657.6</div>		≤7.6
Mono-ethyl phthalate (MEtP)^ (ug/g)	0.94		<div><div></div><div></div><div></div></div> <div>94.2541</div>		≤541
Mono-2-ethylhexyl phthalate (MEHP)^ (ug/g)	0.92		<div><div></div><div></div><div></div></div> <div>2.738.47</div>		≤8.47
Mono-(2-ethyl-5-hydroxyhexyl) phthalate (MEHHP)^ (ug/g)	2.89		<div><div></div><div></div><div></div></div> <div>14.137.7</div>		≤37.7
Mono-(2-ethyl-5-oxohexyl) phthalate (MEOHP)^ (ug/g)	0.08		<div><div></div><div></div><div></div></div> <div>8.9923.4</div>		≤23.4
Methylparaben^ (ug/g)	0.08		<div><div></div><div></div><div></div></div> <div>180653</div>		≤653
Propylparaben^ (ug/g)	0.03		<div><div></div><div></div><div></div></div> <div>36.7222</div>		≤222
Ethylparaben ^ (ug/g)	0.04		<div><div></div><div></div><div></div></div> <div>5.4199.3</div>		≤99.3
Bisphenol A (BPA)^ (ug/g)	1.46		<div><div></div><div></div><div></div></div> <div>2.125.09</div>		≤5.09
Triclosan (TCS)^ (ug/g)	8.41		<div><div></div><div></div><div></div></div> <div>29.9358</div>		≤358

Bone Health



Test Name	Current	Previous	Reference	Test Name	Current	Previous	Reference
Deoxypyridinoline (DPD) (nmol/mmol)	18.60			Pyridinoline (PYD) (nmol/mmol)	30.00		

Suggestions

Diurnal Cortisol

SUPPLEMENTS	Magnesium 350 mg/day	Magnesium supplements decrease cortisol by regulating the hypothalamic-pituitary-adrenal (HPA) axis, which controls stress response. Magnesium acts as a cofactor for enzymes involved in neurotransmitter synthesis, promoting GABA activity, and reducing excessive neuronal firing, which helps lower cortisol production. Additionally, magnesium enhances sleep quality, further reducing cortisol levels.
	Vitamin C 1500 mg/day	Vitamin C supplementation decreases cortisol levels by reducing the secretion of cortisol in response to stress. It supports the adrenal glands, which produce cortisol, thereby improving their function and reducing excessive cortisol release. Additionally, vitamin C acts as an antioxidant, mitigating oxidative stress that can stimulate cortisol production.
	Ashwagandha 600 mg/day	Ashwagandha or its root extract decreases cortisol by inhibiting the activity of the hypothalamic-pituitary-adrenal (HPA) axis, leading to reduced adrenal cortisol production. It enhances the resilience of the body to stress, promoting homeostasis and lowering cortisol levels. Additionally, ashwagandha's bioactive compounds modulate neurotransmitter activity, further aiding in stress reduction.
	Tangeretin 200 mg/day	Tangeretin, a polymethoxylated flavone found in citrus peels, decreases cortisol levels by inhibiting the enzyme 11β-hydroxysteroid dehydrogenase type 1 (11β-HSD1), which converts inactive cortisone to active cortisol. This inhibition reduces the overall production of cortisol within tissues. Additionally, tangeretin's antioxidant properties may mitigate stress-induced cortisol secretion, further lowering cortisol levels in the body.

Diurnal Melatonin

SUPPLEMENTS	Caffeine 200 mg/day	Caffeine is metabolized in the liver by cytochrome P450 (CYP)1A2, which also metabolizes melatonin. By competing for the same enzyme, caffeine reduces melatonin breakdown, leading to higher nighttime melatonin levels. This interaction was confirmed in a study where participants showed a 32% increase in melatonin after caffeine ingestion compared to placebo.
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Estrogen

SUPPLEMENTS	Soy 40 mg/day	Soy supplements contain phytoestrogens like genistein, which compete with estrone for estrogen receptors, reducing estrone's effects. These compounds also influence estrogen metabolism, leading to lower circulating estrone levels. The combined impact helps to modulate estrogenic activity in the body.
	Wheat bran 10 g/day	Wheat bran increases dietary fiber intake, which binds estrogens and enhances their excretion through the feces. This process reduces the enterohepatic recirculation of estrogens, leading to lower serum estrone levels. Consequently, decreased serum estrone can also reduce urinary estrone excretion.
	Soy isoflavones 30 mg/day	Soy isoflavones, such as genistein, inhibit the activity of aromatase, reducing estrogen synthesis. They also act as selective estrogen receptor modulators, which can decrease the formation of 4-OH estradiol. Additionally, they increase the expression of detoxification enzymes, promoting the metabolism and excretion of 4-OH estradiol.

Suggestions

Estrogen

SUPPLEMENTS	Vitamin D 600 IU/day
	Vitamin D supplements can lower estradiol levels by promoting the expression of enzymes that convert estradiol to its less active metabolites. This process is mediated through the regulation of estrogen metabolism and the modulation of estrogen receptor activity. Consequently, increased vitamin D levels can indirectly reduce estradiol availability for 2-hydroxylation. Together, these mechanisms can contribute to lower circulating and urinary levels of 2-hydroxyestradiol, potentially reducing estrogen-related proliferative activity.

Testosterone

SUPPLEMENTS	Chromium picolinate 200 µg/day
	Chromium picolinate enhances insulin sensitivity by facilitating glucose metabolism, which helps regulate blood sugar levels. This, in turn, can reduce elevated androgen levels linked to hirsutism. Improved insulin sensitivity may contribute to decreased hair growth in individuals with insulin resistance-related hirsutism.
	Calcium and vitamin D (Ca/ Vit.D) 1,000 mg of calcium
SUPPLEMENTS	Calcium and vitamin D supplements prevent hirsutism by maintaining adequate calcium levels and enhancing vitamin D absorption, which are crucial for proper hormonal balance. Vitamin D helps regulate androgen levels, while calcium supports overall endocrine function. This combined action helps mitigate the excessive hair growth associated with hirsutism.
	Melatonin 5 mg/day
SUPPLEMENTS	Melatonin supplements help prevent hirsutism by regulating androgen levels and reducing the activity of hair growth-promoting hormones. Additionally, melatonin exhibits anti-inflammatory effects that can address underlying conditions contributing to excessive hair growth. This combined action helps manage and mitigate the symptoms associated with hirsutism.

Hormone Ratios

SUPPLEMENTS	Vitamin D 600 IU/day
	Vitamin D supplements decrease cortisol/cortisone levels by modulating the hypothalamic-pituitary-adrenal (HPA) axis, leading to reduced adrenal gland secretion of these hormones. This regulation involves vitamin D receptor (VDR) activation, which influences gene expression associated with cortisol production. Additionally, vitamin D's anti-inflammatory properties can indirectly lower cortisol levels by reducing systemic inflammation.
	Soy isoflavones 30 mg/day
	Soy isoflavones, such as genistein, inhibit the activity of aromatase, reducing estrogen synthesis. They also act as selective estrogen receptor modulators, which can decrease the formation of 4-OH estradiol. Additionally, they increase the expression of detoxification enzymes, promoting the metabolism and excretion of 4-OH estradiol.
	Pyridoxal 5'-phosphate 30 mg/kg/day
SUPPLEMENTS	Pyridoxal 5'-phosphate, the active form of vitamin B6, decreases breast cancer by modulating gene expression and inhibiting angiogenesis, thus reducing tumor growth. It also enhances the immune response against cancer cells and induces apoptosis.
	Fenugreek seeds extract 600 mg/day
SUPPLEMENTS	Fenugreek seeds extract increases testosterone primarily by inhibiting the enzyme 5-alpha reductase, which reduces testosterone conversion to dihydrotestosterone (DHT). Additionally, it can stimulate Luteinizing Hormone (LH) secretion, enhancing endogenous testosterone production. The active compound saponins in fenugreek also support these effects.
	DHEA
SUPPLEMENTS	DHEA supplements increase testosterone by serving as a precursor hormone that converts into testosterone and other androgens in the body. This conversion mainly occurs in the adrenal glands and gonads through enzymatic processes. As a result, DHEA supplementation can elevate testosterone levels, potentially enhancing anabolic effects and overall hormone balance.

Suggestions

Hormone Ratios

SUPPLEMENTS	Vitamin D	600 IU/day
	Vitamin D supplements increase testosterone by enhancing the expression of testosterone synthesis-related genes in the testes and improving calcium absorption, which is vital for testosterone production. Additionally, Vitamin D receptors in the Leydig cells of the testes facilitate the production of testosterone. This hormone synthesis boost is particularly notable in individuals with Vitamin D deficiency.	

Endocrine Disruptors

SUPPLEMENTS	Lycopene	8 mg/day
	Lycopene may provide cardioprotective effects and reduce oxidative stress, potentially mitigating atrazine-induced damage, although specific mechanisms against atrazine toxicity are unclear	
	Spirulina	3 g/day
	Spirulina has been shown to reduce oxidative stress and inflammation induced by atrazine (ATZ) in hepatic tissues. It modulates the expression of inflammatory cytokines, up-regulating IL-10 while down-regulating IL-1 β , thereby mitigating hepatotoxic injury.	
	Vitamin C	75 mg/day
	Vitamin C has been shown to ameliorate atrazine-induced oxidative stress and inflammation in hepatic tissues. It helps regulate liver function biomarkers and counteracts apoptosis by enhancing antioxidant defenses.	
	Soybean	25 g/day
	The protective effects of soybeans against atrazine toxicity are not well-documented; however, their isoflavones may provide some antioxidant benefits that could theoretically mitigate oxidative stress.	
	Quercetin	500 mg/day
	Quercetin exhibits antioxidant properties that may help reduce oxidative stress and inflammation caused by atrazine exposure, although specific protective effects against atrazine toxicity require further investigation.	
	Vitamin E	22 IU/day
	Vitamin E is known for its antioxidant effects, which can help protect against oxidative damage induced by atrazine; however, specific studies demonstrating its efficacy against atrazine toxicity are limited.	
	Melatonin	10 mg/day
	Melatonin may help mitigate oxidative stress and inflammation associated with atrazine exposure through its antioxidant properties, but specific evidence regarding its protective role against atrazine toxicity is lacking.	
	Ginger	15 mg/day
	The potential protective effects of ginger against atrazine toxicity are not well-established; however, its anti-inflammatory and antioxidant properties may offer some benefits in reducing oxidative stress related to atrazine exposure.	
	Curcumin	500 mg/day
	Curcumin has shown protective effects against atrazine-induced testicular toxicity by enhancing reproductive hormone levels and improving histological features in studies involving co-treatment with quercetin.	
	Iodine	120 mcg/day
	Iodine prevents exposure to endocrine disruptors by acting as an antioxidant, neutralizing reactive oxygen species (ROS) and reducing oxidative stress that can lead to hormonal imbalances. It supports thyroid hormone synthesis, which is crucial for maintaining metabolic and hormonal balance in the body. Additionally, iodine can induce apoptosis in cancer cells and modulate immune responses, further protecting against the disruptive effects of environmental toxins.	

Suggestions

Bone Health

SUPPLEMENTS	Calcium 1500 mg/day Calcium supplementation reduces bone resorption by inhibiting osteoclast activity, leading to decreased collagen breakdown. Calcium MCHC is a more bioavailable form of calcium and includes phosphorus, collagen and other minerals and is a preferred version for better absorption. This supplementation lowers the release of deoxypyridinoline (DPD) into circulation. As a result, urinary DPD levels, a marker of bone degradation, decreases.
	Soy flavones 56 mg/day Soy isoflavones decrease urinary deoxypyridinoline (DPD) by inhibiting bone resorption through estrogen receptor activation, leading to reduced osteoclast activity. This suppression decreases collagen breakdown, lowering DPD levels. Additionally, isoflavones promote bone formation, further reducing bone turnover.
	RNAse-enriched-Lactoferrin (R-ELF) 125 mg/day RNAse-enriched-Lactoferrin (R-ELF) inhibits osteoclast activity, reducing bone resorption and consequently lowering urinary deoxypyridinoline (DPD), a marker of collagen breakdown. R-ELF also promotes osteoblast differentiation, enhancing bone formation.
	Genistein 54 mg/day Genistein decreases urinary deoxypyridinoline (DPD) by inhibiting osteoclast activity, leading to reduced bone resorption. It modulates estrogen receptors and promotes osteoblast differentiation, enhancing bone formation. This dual action lowers collagen degradation markers like DPD in urine.

Risk and Limitations

This test has been developed and its performance characteristics determined and validated by Vibrant America LLC., a CLIA certified lab. These assays have not been cleared or approved by the U.S. Food and Drug Administration. Vibrant Wellness provides additional contextual information on these tests and provides the report in more descriptive fashion.

Hormone Zoomer testing is performed at Vibrant America and utilizing effective procedures in place to protect against technical and operational problems. However, such problems may still occur. Examples include failure to obtain the result for a specific test due to circumstances beyond Vibrant's control. Vibrant may re-test a sample to obtain these results but upon re-testing the results may still not be obtained. As with all medical laboratory testing, there is a small chance that the laboratory could report incorrect results. A tested individual may wish to pursue further testing to verify any results.

Tested individuals should not change their diet, physical activity, or any medical treatments they are currently using based on the results without consulting their personal health care provider. The information in this report is intended for educational purposes only. While every attempt has been made to provide current and accurate information, neither the author nor the publisher can be held accountable for any errors or omissions. Tested individuals may find their experience is not consistent with Vibrant's selected peer reviewed scientific research findings of relative improvement for study groups. Science in this area is still developing, and many personal health factors affect diet and health. Since subjects in the scientific studies referenced in this report may have had personal health and other factors different from those of tested individuals, results from these studies may not be representative of the results experienced by tested individuals. Further, some recommendations may or may not be attainable, depending on the tested individual's physical ability or other personal health factors. A limitation of this testing is that many of these scientific studies may have been performed in selected populations only. The interpretations and recommendations are done in the context of these studies, but the results may or may not be relevant to tested individuals of different or mixed ethnicities. Please note that pediatric ranges have not been established for these tests. Interference studies have not been established for individuals on immunosuppressive drugs.

Based on test results and other medical knowledge of the tested individual, health care providers might consider additional independent testing, or consult another health care provider or a genetic counselor. The suggested supplements and dosages in this report are based on current research and are not intended as medical advice. Individual needs may vary, and these suggestions should not replace professional medical guidance. Consult with a qualified healthcare provider before starting any new supplement regimen, especially if you have pre-existing health conditions or are taking medications. For specific scientific references supporting these suggestions, please contact our support team.

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The supplement recommendations and dosage guidelines provided are intended for general informational purposes only and should not replace professional medical advice; final dosage decisions must be made in consultation with your healthcare provider. Vibrant disclaims any liability for adverse effects, outcomes, or consequences arising from the use of these suggestions.

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