



MY BODY | MY PET | MY ENVIRONMENT

GUIDE TO TESTING

Saliva | Blood Spot | Dried Urine



GUIDELINES FOR SELECTING A TEST MEDIUM

SALIVA TESTING

Suitable for:

- Assessing “free” (unbound to carrier proteins) hormone levels
- Monitoring hormone replacement given orally, topically, vaginally or via pellets
- Determining diurnal cortisol levels (4 times during one day) for adrenal stress assessment

Not suitable for:

- Monitoring sublingual/troche hormone replacement
- Patients with dry mouth, e.g. due to Sjogren’s Syndrome

BLOOD SPOT TESTING

Suitable for:

- Patients with dry mouth and/or children who may have difficulty collecting saliva
- Monitoring all hormone replacement therapy (oral, topical, vaginal, sublingual, pellet)
- Assessing interstitial tissue/capillary hormone levels
- Assessing thyroid health, fertility parameters, toxic and nutritional elements, and cardiometabolic risk factors

Not suitable for:

- Patients who are uncomfortable about collecting their own sample (samples may be collected in provider’s office)

URINE TESTING

Suitable for:

- Measuring steroid hormone metabolites, e.g., for breast cancer risk assessment
- Determining toxic element exposure and iodine/selenium sufficiency for thyroid health
- Determining diurnal cortisol production at 4 time points for stress assessment
- Assessing nocturnal and diurnal melatonin production

Not suitable for:

- Monitoring topical or intravaginal hormone replacement therapy

Best recommendation for steroid hormone testing in different body fluids following different routes of hormone supplementation

Type of Body Fluid	No Exogenous Steroids	Oral Steroids	Topical Steroids	Vaginal Steroids	Troche/Sublingual Steroids	Pellet/IM Steroids
SERUM	✓	✓	✗	✗	✓	✓
SALIVA	✓	✓	✓	✓	✗	✓
DRIED URINE	✓	✗	✗	✗	✓	✓
DRIED BLOOD SPOT	✓	✓	✓	✓	✓	✓



FEMALE/MALE SALIVA PROFILES I, II & III

Three convenient saliva profiles are offered to assess sex and adrenal hormone levels. These profiles test waking levels of estradiol, progesterone, testosterone, DHEA-S, and cortisol, while Profile II includes a bed-time cortisol test and Profile III a full diurnal cortisol profile at four time points during the day (morning, noon, evening, night).



Saliva Profile I includes: E2, Pg, T, DS, C

Saliva Profile II includes: E2, Pg, T, DS, Cx2

Saliva Profile III includes: E2, Pg, T, DS, Cx4

Consider for WOMEN: Baseline levels before hormone replacement therapy, amenorrhea, PMS, dysfunctional uterine bleeding (DUB), estrogen dominance symptoms, hypogonadism, sexual dysfunction, osteoporosis, fibrocystic breast disease, infertility screening, polycystic ovarian syndrome (PCOS) screening, anovulation, menopausal symptoms, screening for adrenal fatigue. Ideal for monitoring HRT dosing.

Consider for MEN: Monitor for estrogen dominance, hypogonadism, andropause, fatigue, low libido, erectile dysfunction, infertility, osteoporosis screening, and adrenal dysfunction.

DIURNAL CORTISOL PROFILE

The full diurnal cortisol profile at four time points during the day.

Diurnal Cortisol Profile includes: Cx4

Consider for stress, immune dysfunction, chronic fatigue, and/or multiple symptoms of adrenal imbalance.

ADRENAL STRESS PROFILE

The profile tests the adrenal hormones DHEA-S and diurnal cortisol. When individuals experience continuous stress, not only from emotional stressors (e.g., marital, financial, and occupational) but also from physical stressors (e.g., sleep deprivation, caffeine consumption, pain, extreme exercise), it can lead to changes in adrenal hormone levels, related to disorders ranging from anxiety to infertility.

Adrenal Stress Profile includes: DS, Cx4

Consider for individuals under stress with multiple symptoms of adrenal imbalance, including immune dysfunction, fatigue, allergies, and sleep disturbances.

HORMONE TRIO - SALIVA

Combines three of our most popular saliva hormone tests at a lower price than individual tests.

Hormone Trio includes: E2, Pg, T

Consider for WOMEN: Baseline levels before hormone replacement therapy, amenorrhea, PMS, DUB (dysfunctional uterine bleeding), estrogen dominance symptoms, hypogonadism, sexual dysfunction, osteoporosis, fibrocystic breast disease, PCOS screening, anovulation, menopausal symptoms. Ideal for monitoring HRT dosing.

Consider for MEN: Monitor for estrogen dominance, hypogonadism, andropause, fatigue, low libido, erectile dysfunction, osteoporosis screening.



CARDIOMETABOLIC PROFILE

This profile, entirely in dried blood spot collected after an overnight fast, allows early detection of major indicators associated with metabolic/insulin resistance syndrome. As a screening profile it can facilitate appropriate treatment to reduce Type 2 diabetes and cardiovascular disease (CVD) risks.

CardioMetabolic Profile includes: Insulin, hsCRP, HbA1c, TG, CH, HDL, LDL, VLDL

Consider for atherosclerosis, CVD, type 2 diabetes, dyslipidemia, hypertension, infertility, insulin resistance, metabolic syndrome, obesity, PCOS, weight issues.



ESSENTIAL THYROID PROFILE

Thyroid dysfunction can explain a wide variety of symptoms because of the central role of thyroid hormones in directing the metabolic activity of cells. A properly regulated thyroid is essential to a wide array of biochemical processes in the body. This profile can help detect both overt and subclinical thyroid disease, as well as monitor thyroid replacement therapy.

Essential Thyroid Profile includes: TSH, fT3, fT4, TPOab

Full assessment of thyroid health, including screening for hypo- or hyperthyroidism, determining Free T4 and Free T3 levels, testing for autoimmune thyroid disease, and monitoring thyroid replacement dosages.

Consider for alopecia, anxiety, arthralgias, constipation, depression, fatigue, Hashimotos, hyperlipidemia, hypertension, infertility, menstrual disorders (DUB, amenorrhea), mood disorders, obesity, sleep disorders, and weight issues.

FEMALE BLOOD PROFILES I & II

Two dried blood spot profiles are offered for women: Profile I tests sex and adrenal hormone levels in blood, as an alternative to Saliva Profile I for those women who have difficulty producing enough saliva for testing, or who are using sublingual hormones that might interfere with the saliva test. SHBG is included in the profile so that free (unbound) testosterone can be calculated, since most of the testosterone circulating in the blood is bound to SHBG. Profile II includes the same tests as Profile I with the addition of the Essential Thyroid Profile tests.

Female Blood Profile I includes: E2, total; Pg, total; T, total; SHBG; DS; C

Female Blood Profile II adds: TSH, fT3, fT4, TPOab

Female Blood Profile I tests the primary male sex hormones and their major binding globulin, and screens for adrenal health through morning cortisol.

Consider for assessment of total baseline levels before hormone replacement therapy, adrenal fatigue, amenorrhea, anovulation, DUB (dysfunctional uterine bleeding), estrogen dominance symptoms, fibrocystic breast disease, hypogonadism, infertility screening, menopausal symptoms, osteoporosis, PCOS screening, PMS, sexual dysfunction.

Female Blood Profile II is a more comprehensive assessment of hormonal and thyroid imbalances.



MALE BLOOD PROFILES I & II

Two dried blood spot profiles are offered for men: Profile I tests sex and adrenal hormone levels in blood, and includes a PSA test to help assess prostate health. Profile II includes the same tests as Profile I with the addition of the Essential Thyroid Profile tests.

Male Blood Profile I includes: E2, total; T, total; PSA; SHBG; DS; C

Male Blood Profile II adds: TSH, fT3, fT4, TPOab

Male Blood Profile I tests the primary male sex hormones and their major binding globulin, and screens for adrenal health through morning cortisol.

Consider for monitoring for estrogen dominance, hypogonadism, andropause, fatigue, low libido, erectile dysfunction (ED), infertility, osteoporosis screening, adrenal dysfunction.

Male Blood Profile II is a more comprehensive assessment of hormonal and thyroid imbalances.

HORMONE TRIO - BLOOD SPOT

Combines three of our most popular hormone tests at a lower price than individual tests.

Hormone Trio includes: E2, Pg, T

Consider for WOMEN: Baseline levels before hormone replacement therapy, amenorrhea, PMS, DUB (dysfunctional uterine bleeding), estrogen dominance symptoms, hypogonadism, sexual dysfunction, osteoporosis, fibrocystic breast disease, PCOS screening, anovulation, menopausal symptoms. Ideal for monitoring HRT dosing.

Consider for MEN: Monitor for estrogen dominance, hypogonadism, andropause, fatigue, low libido, erectile dysfunction (ED), osteoporosis screening.

ELEMENTS DRIED BLOOD SPOT PROFILE

We are all exposed to different amounts of essential and toxic elements depending on where we live, our diet and supplementation routine, and environmental pollution of the air we breathe. Essential elements are only conducive to optimal health when they are within optimal ranges - levels that are too low or too high can have detrimental effects on health – and exposure to toxic heavy metals has multiple adverse health effects. Dried blood spot testing represents red blood cell levels of the nutritional elements magnesium, zinc, and copper, revealing deficiencies earlier than a typical serum test, and is a convenient alternative to whole blood testing for lead.

Elements Dried Blood Spot Profile includes: Mercury, Cadmium, Lead, Zinc, Copper, Selenium, Magnesium

Assesses an individual’s levels of the essential nutrients zinc, copper, selenium, and magnesium, and their exposure to the toxic heavy metals mercury, cadmium, and lead.

Consider for smokers; patients with exposure to toxic heavy metals through hobbies, work, or dentistry; people who live or have lived in older homes or areas where metals (e.g., lead) may be present in drinking water; and patients whose health issues could be a result of nutritional deficiencies or imbalances in essential elements.



DRIED URINE PROFILES

HORMONE METABOLITES PROFILES

Seven profiles give a broad range of choices for an assessment of how patients are metabolizing a variety of hormones. They include:

- a wide array of estrogen, progesterone, and androgen metabolites useful for assessment of breast cancer risk
- glucocorticoid metabolites, diurnal free cortisol, and diurnal free cortisone for adrenal assessment
- diurnal 6-sulfatoxymelatonin (MT6s) to assess sleep/wake cycle dysfunction
- the xenoestrogen Bisphenol A (BPA)

Sex steroid hormone metabolites results are useful for monitoring hormone therapy patients using patches, pellets or injectables. They offer a more complete picture of hormone health when used in conjunction with saliva or blood spot hormone testing.

ADRENAL

A picture of adrenal hormone metabolism.

Consider for patients with adrenal dysfunction or stress. Useful as a second step of testing for those with adrenal fatigue symptoms, but whose saliva cortisol levels are normal (i.e., may indicate hyperexcretion of cortisol/excessive conversion to cortisone). Useful as a screening test for Addison's or Cushing's disease.

ESTROGEN ESSENTIAL

A baseline view of how a patient is metabolizing estrogens.

Consider for anyone with a personal or family history of estrogen-dependent cancer (e.g., breast cancer).

ESTROGEN ELITE

Estrogen, progesterone, and select androgen metabolites with BPA.

Consider for anyone with a personal or family history of estrogen-dependent cancer (e.g., breast cancer), patients with symptoms of estrogen/progesterone imbalance, men with prostate cancer risk, or patients who want to assess their exposure to BPA.

ANDROGEN ELITE

Comprehensive androgen plus select estrogen and progesterone metabolites.

Consider as an ideal profile for men considering hormone replacement, for men with prostate problems, or for women with androgen excess.

BASIC

A baseline view of sex steroid hormone metabolite levels plus total cortisol.

Consider as a baseline assessment for hormone replacement therapy.

INTERMEDIATE

An expanded look at sex steroid hormone metabolite levels, with a broader view of cortisol metabolism plus first-morning melatonin and BPA.

Consider as a standard profile for men or women considering hormone replacement therapy or concerned with cancer risk, for assessment of overnight melatonin production and adrenal health, and for patients who want to assess their exposure to BPA.

ADVANCED

Our broadest view of sex steroid hormone metabolite levels and cortisol metabolism, with full diurnal melatonin and BPA.

Consider as a comprehensive assessment for patients at risk of breast cancer, patients with symptoms of estrogen/progesterone imbalance, men with prostate problems, and patients who want to assess exposure to BPA. Also beneficial for patients struggling with weight or insulin resistance, who have signs of adrenal dysfunction, or who have sleep problems affecting health.



Urine Metabolites Profile Options		ADRENAL	ESTROGEN ESSENTIAL	ESTROGEN ELITE	ANDROGEN ELITE	BASIC	INTERMEDIATE	ADVANCED
Estrogens	Estradiol		•	•	•	•	•	•
	Estrone		•	•	•	•	•	•
	Estriol		•	•	•	•	•	•
	2-Hydroxy Estradiol		•	•				•
	2-Hydroxy Estrone		•	•	•		•	•
	4-Hydroxy Estradiol		•	•			•	•
	4-Hydroxy Estrone		•	•			•	•
	16 α -Hydroxy Estrone		•	•	•		•	•
	2-Methoxy Estradiol		•	•				•
	2-Methoxy Estrone		•	•			•	•
	4-Methoxy Estradiol		•	•			•	•
	4-Methoxy Estrone		•	•				•
	Bisphenol A (BPA)			•			•	•
Progestogens	Pregnanediol			•	•	•	•	•
	Allopregnanolone			•	•	•	•	•
	Allopregnanediol							•
	3 α -Dihydroprogesterone							•
	20 α -Dihydroprogesterone							•
	Deoxycorticosterone							•
	Corticosterone							•
Androgens	Testosterone			•	•	•	•	•
	Epi-Testosterone			•	•	•	•	•
	5 α -Dihydrotestosterone			•	•	•	•	•
	Androstenedione			•	•		•	•
	DHEA	•		•	•	•	•	•
	5 α ,3 α -Androstenediol				•			•
Glucocorticoids	Total Cortisol	•			•	•	•	•
	Free Cortisol x4	•					•	•
	Total Cortisone	•			•		•	•
	Free Cortisone x4	•					•	•
	Tetrahydrocortisol	•			•		•	•
	Tetrahydrocortisone	•			•		•	•
Melatonin	Melatonin (MT6s)						•	
	Melatonin (MT6s) x4							•

Creatinine is measured in all samples to correct results for urine dilution.

DRIED URINE PROFILES

ELEMENTS DRIED URINE PROFILE

We are all, to varying degrees exposed to the elements iodine, bromine, selenium, arsenic, mercury, and cadmium. Iodine is an essential component of T3 and T4, so its deficiency has a serious impact on thyroid hormone synthesis, while bromine in excess competes with iodine in the thyroid. Selenium is a component of the selenoproteins, including the deiodinases that convert inactive T4 to active T3, and glutathione peroxidase, an important antioxidant which prevents free radical damage to tissues. Arsenic and mercury reduce selenium's bioavailability and disrupt thyroid health. Arsenic, mercury, and cadmium represent 3 of the 4 most toxic heavy metals according to the CDC.



Elements Dried Urine Profile includes:
Iodine, Bromine, Selenium, Arsenic,
Mercury, Cadmium

Creatinine: Measured in all samples to correct for urine dilution

Allows physicians to see if an individual has too little, or too much, of the essential nutrients iodine and selenium, or if they have been exposed to too much of the toxic elements bromine, arsenic, mercury, and cadmium.

Consider for smokers, patients at risk of exposure to toxic heavy metals, or patients with thyroid issues and/or possible disruption of T4 to T3 conversion due to excesses or deficiencies of the elements tested.

SLEEP BALANCE PROFILE

ZRT is the only laboratory offering testing for the circadian rhythm of melatonin in concert with cortisol and cortisone to assess sleep/wake cycle dysfunction. Circulating melatonin is efficiently hydroxylated and conjugated with sulfate in the liver to form its primary metabolite, 6-sulfatoxymelatonin (MT6s), and excreted into urine; it is this metabolite that is measured in the Sleep Balance Profile. Adrenal cortisol, produced in response to stress, is also known for its diurnal variation linked to the sleep/wake cycle. It has the opposite pattern to melatonin production in a healthy individual. Urine is collected on filter strips at 4 time points throughout the day representative of the peaks and troughs of melatonin and cortisol production. The first urine void represents the 8 hours or so of overnight peak melatonin production, eliminating the need for middle of the night collection.

Sleep Balance Profile includes: MT6s x4,
Free Cortisol x4, Free Cortisone x4

Creatinine: Measured in all samples to correct for urine dilution

Allows physicians to pinpoint imbalances of melatonin and cortisol circadian rhythms associated with acute or chronic sleep disturbances.

Consider for patients with inability to get to sleep, frequent waking, or chronic sleeplessness affecting vitality, cognition, weight, and diabetes/cardiovascular disease risks.



COMBINATION PROFILES

FERTILITY PROFILE

The profile provides a thorough evaluation that can identify many problems related to hormone imbalances that are associated with infertility. Dried blood spot samples are collected on days 3 and 21 of the menstrual cycle, and saliva samples are collected only on day 21. LH and FSH are tested on day 3, while on day 21 estradiol, progesterone, testosterone, DHEA-S, SHBG, and the thyroid hormones are tested in dried blood spot and diurnal cortisol is tested in saliva.

**Fertility Profile includes: Saliva: Cx4;
Blood spot: E2, total; Pg; T, total; SHBG; DS;
TSH; fT3; fT4; TPOab; FSH; LH**

Meets the requirement for initial screening for fertility assessment by reproductive endocrinologists. Assessment of ovarian reserve as well as screening for multiple common reasons for infertility including: anovulation, PCOS, hypothyroidism, premature ovarian failure or ovarian insufficiency.

Consider for women who have been trying to get pregnant without success, or who would like to be proactive in their preconception planning by getting a baseline screening.

COMPREHENSIVE THYROID PROFILE

This profile combines ZRT's innovative Elements Dried Urine Profile (see Urine Profiles) in dried urine with thyroid testing in dried blood spot for a more comprehensive thyroid assessment.

**Comprehensive Thyroid Profile
includes: Urine: Iodine, Bromine, Selenium,
Arsenic, Mercury, Cadmium, Creatinine;
Blood spot: T4, Tgbn, TSH, fT3, fT4, TPOab**

Allows doctors to see if an individual has too little, or too much, iodine and selenium, and/or exposure to the iodine/selenium antagonists bromine, arsenic, and mercury; full assessment of thyroid health, including screening for hypo or hyperthyroidism, determines Free T4 and Free T3 levels, testing for autoimmune thyroid disease, and monitoring thyroid replacement dosages.

Consider for patients with thyroid dysfunction coupled with concerns about toxic element exposure and iodine/selenium deficiency's impact on T4 to T3 conversion.

SKIN VITALITY PROFILE

Skin is not only a major target of hormone action, it is also a site of local hormone synthesis, activation and metabolism. The range of hormones tested in the Skin Vitality Profile can help providers identify hormone deficiencies or excesses that are contributing to skin problems.

**Skin Vitality Profile includes:
Saliva: E2, E3, Pg, T, DS, Cx4;
Blood spot: TSH, Vitamin D2/D3**

Detection of hormone imbalances can lead to treatment of previously undiagnosed conditions such as a thyroid disorder or PCOS, or adjustment or initiation of hormone replacement therapy.

Consider for patients with thinning skin, wrinkling, dryness, oiliness, acne, hirsutism, hair loss, melasma, itching, myxedema, or slow wound healing.



WEIGHT MANAGEMENT PROFILE

The Weight Management Profile identifies hormonal imbalances that contribute to obesity, weight gain and difficulty losing or sustaining a healthy weight. Used as a screening tool, it serves as an early indicator of insulin resistance and risks for metabolic syndrome and diabetes.

Weight Management Profile includes:

Saliva: E2, Pg, T, DS, Cx4; Blood spot: TSH, Vitamin D2/D3, Insulin, HbA1c

Allows physicians to isolate specific imbalances of one or more hormones that contribute to weight gain, slowed metabolism, increased body fat deposition, and food/sugar cravings. Facilitates correction of imbalances for proactive weight control, and associated risks for cardiometabolic disease and diabetes.

Consider for WOMEN with premenstrual weight gain and fluid retention; perimenopausal and/or menopausal weight gain in hips/thigh, and/or inability to lose/tendency to regain weight, central obesity, PCOS, adrenal and thyroid dysfunction; breast cancer risks.

Consider for MEN with andropausal weight gain in hips/thighs (female fat distribution pattern) and/or inability to lose/tendency to regain weight, central obesity, adrenal and thyroid dysfunction; prostate cancer risks.

Optional Thyroid Add-on: free T3, free T4, and TPOab antibodies provide a better estimation of thyroid hormone bioavailability to facilitate effective thyroid therapy.

Consider when symptoms of thyroid deficiency are problematic.

Optional Cardio Add-on: Cardiometabolic risk markers hs-CRP, triglycerides, total cholesterol, LDL, HDL and VLDL cholesterol for early detection of pro-inflammatory CVD risks and pre-diabetes.

Consider for abdominal obesity, and symptoms of insulin resistance/metabolic syndrome.

COMPREHENSIVE ELEMENTS PROFILE

We are all exposed to different amounts of essential and toxic elements depending on where we live, our diet and supplementation routine, and environmental pollution of the air we breathe. Essential elements are only conducive to optimal health when they are within optimal ranges - levels that are too low or too high can have detrimental effects on health – and exposure to toxic heavy metals has multiple adverse health effects. The comprehensive profile allows a complete assessment of the most important elements implicated in health-related effects, as it includes a measure of both short and long term exposure to all 4 of the most toxic environmental heavy metals, as well as highlighting nutritional element deficiencies earlier than a typical serum test.

Comprehensive Elements Profile includes:

Urine: Cadmium, Mercury, Selenium, Arsenic, Iodine, Bromine

Creatinine: Measured in all samples to correct for urine dilution

Blood spot: Mercury, Cadmium, Lead, Zinc, Copper, Selenium, Magnesium

Assesses an individual's levels of the essential nutrients iodine, zinc, copper, selenium, and magnesium, and their exposure to the toxic elements mercury, cadmium, lead, arsenic, and bromine.

Consider for smokers; patients with exposure to toxic heavy metals through hobbies, work, or dentistry; people who live or have lived in older homes or areas where metals (e.g., lead) may be present in drinking water; and patients whose health issues could be a result of nutritional deficiencies or imbalances in essential elements.



DIRECTORY OF TESTS

Saliva, blood spot and dried urine are used for the minimally-invasive hormone testing that is the hallmark of ZRT Laboratory. The simplicity of sample collection and stability of samples in storage and transport have made these ideal for clinical use as well as research. See the table at right for a list of all our current offerings.

* For these hormones tested in both saliva and blood spot, saliva measures free (bioavailable) hormone levels whereas blood spot measures total (free plus protein bound) hormone levels.

** Explanation of assay type abbreviations:

EIA = Enzyme Immunoassay

FIA = Time-Resolved Fluorescence assay

GC-MS/MS = Gas chromatography/tandem mass spectrometry

ICPMS = Inductively Coupled Plasma Mass Spectrometry

ITA = Immunoturbidimetric assay

LC-MS/MS = Liquid chromatography/tandem mass spectrometry

LIA = Luminescence immunoassay

***Any test offered as a Single Test can be added to any other test or profile at a discounted price.

****Creatinine is included with all urine tests as a correction factor for urine dilution.

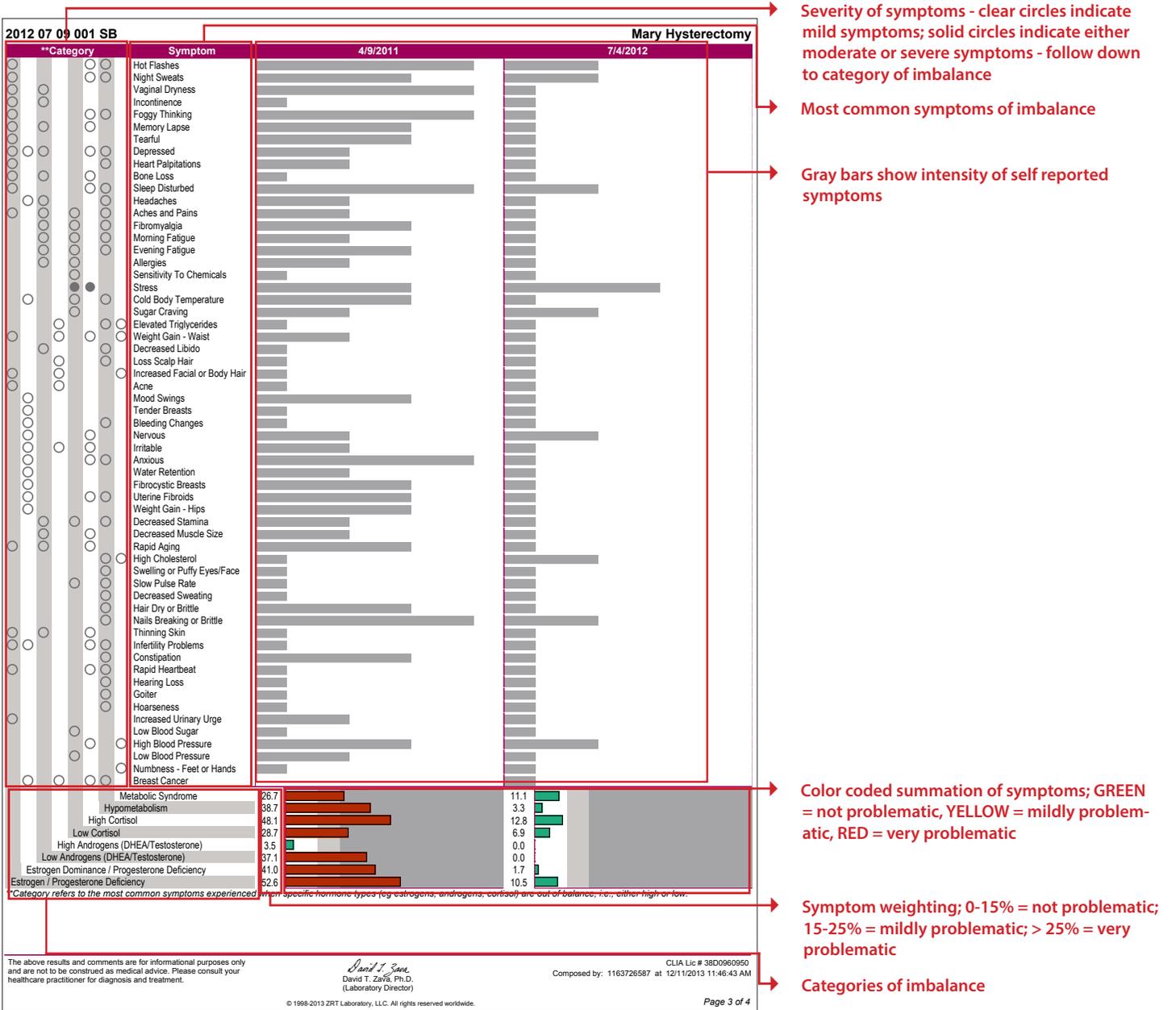


TEST	CPT CODE	ASSAY TYPE**	BLOOD SPOT	SALIVA	DRIED URINE	AVAILABLE AS "SINGLE" OR "ADD-ON" TEST***
HORMONE TESTING						
Estradiol (E2)*	82670	EIA	✓	✓		✓
Estradiol (E2)	82670	GC-MS/MS			✓	
Estriol (E3)	82677	LC-MS/MS		✓		✓
Estriol (E3)	82677	GC-MS/MS			✓	
Estrone (E1)	82679	LC-MS/MS		✓		✓
Estrone (E1)	82679	GC-MS/MS			✓	
Progesterone (Pg)*	84144	EIA	✓	✓		✓
Testosterone (T)*	84402	LIA		✓		✓
Testosterone (T)*	84403	EIA	✓			✓
Testosterone (T)	84403	GC-MS/MS			✓	
DHEA-S	82627	EIA	✓	✓		✓
DHEA + DHEA-S	82626	GC-MS/MS			✓	
Cortisol (C)*	82530	EIA		✓		✓
Cortisol (C)*	82533	EIA	✓			✓
Free Cortisol	82530	LC-MS/MS			✓	
Total Cortisol	82533	GC-MS/MS			✓	
Free Cortisone	82530	LC-MS/MS			✓	
Total Cortisone	82533	GC-MS/MS			✓	
Steroid hormone metabolites: 2-OH estradiol, 4-OH estradiol, 2-MeO estradiol, 4-MeO estradiol 2-OH estrone, 4-OH estrone, 16 α -OH estrone, 2-MeO estrone, 4-MeO estrone Pregnanediol, allopregnanediol Allopregnanolone 3 α -dihydroprogesterone 20 α -dihydroprogesterone Deoxycorticosterone Corticosterone Epi-testosterone 5 α -dihydrotestosterone Androstenedione 5 α ,3 α -Androstanediol Tetrahydrocortisol, tetrahydrocortisone	82670 82679 84135 84140 84144 83499 82633 82528 82542 80327 82157 82154 83491	GC-MS/MS			✓	
Bisphenol A	82542	GC-MS/MS			✓	
Melatonin (MT6s)	82542	LC-MS/MS			✓	
SHBG	84270	LIA	✓			✓
Prostate Specific Antigen (PSA)	84153	LIA	✓			✓
Free Thyroxine (fT4)	84439	EIA	✓			✓
Free Triiodothyronine (fT3)	84481	EIA	✓			✓
Thyroid Stimulating Hormone (TSH)	84443	LIA	✓			✓
Thyroid Peroxidase Antibodies (TPOab)	86376	EIA	✓			✓
Thyroxine (T4), total	84436	EIA	✓			✓
Thyroglobulin	84432	LIA	✓			✓
IGF-1 (Somatomedin C)	84305	EIA	✓			✓
Luteinizing Hormone (LH)	83002	LIA	✓			✓
Follicle-Stimulating Hormone (FSH)	83001	LIA	✓			✓
25-OH Vitamin D, Total (D2 plus D3)	82306	LC-MS/MS	✓			✓
CARDIOMETABOLIC RISK TESTING						
Insulin (Ins), fasting	83525	EIA	✓			✓
Cholesterol (CH), total	82465	Enzymatic	✓			
HDL Cholesterol (HDL)	83718	Enzymatic	✓			
High-Sensitivity C-Reactive Protein (hsCRP)	86141	EIA	✓			✓
Hemoglobin A1c (HbA1c)	83036	ITA	✓			✓
Triglycerides (TG)	84478	Enzymatic	✓			✓
ELEMENTS TESTING						
Iodine (I)	84311	ICPMS			✓	✓
Bromine (Br)	83789	ICPMS			✓	
Arsenic (As)	82175	ICPMS			✓	
Selenium (Se)	84255	ICPMS	✓		✓	
Mercury (Hg)	83825	ICPMS	✓		✓	
Cadmium (Cd)	82300	ICPMS	✓		✓	
Lead (Pb)	83655	ICPMS	✓			
Zinc (Zn)	84630	ICPMS	✓			
Copper (Cu)	82525	ICPMS	✓			
Magnesium (Mg)	83735	ICPMS	✓			
ADJUNCT TO URINE TESTS						
Creatinine (Cr)****	82570	Colorimetric			✓	

TEST RESULTS - PAGE 2 (not pictured) **ZRT Laboratory Reference Ranges**

Reference ranges are observed ranges based on collected laboratory data. Supplement type and dosage, where included, are for health care provider information and are not recommendations for treatment.

TEST RESULTS - PAGE 3



In the event that cortisol levels (high or low) differ on the bar graph of your test report than on page one, this is indicative of the weighted value of self-reported symptoms.

TEST RESULTS - PAGE 4 (not pictured) **Comments**

The Comments page is a thorough explanation which provides a better understanding of tested levels in relation to intensity of self-reported symptoms (mild, moderate, severe), menstrual history in women, and supplementation at the time of testing. The self-reported symptoms do not influence lab results, but are included in the individualized comments as they relate back to lab results.

