



Wellness & Fitness Testing

*Discover True Clinical Utility with the
Industry's Best Testing*



Clinical Utility of Wellness, Fitness or Athlete Testing

The Wellness Metrics Profile allows providers to identify specific hormone imbalances associated with menopause/andropause, PCOS, excess weight gain or obesity, vitamin D deficiency, and hypothyroidism in their patients. As a risk assessment profile, it allows for early detection of insulin resistance, metabolic syndrome, and type 2 diabetes.

ZRT Laboratory's comprehensive test report is designed to help clinicians recommend effective treatments to rebalance sex hormone and adrenal hormone levels, address vitamin D and thyroid deficiencies, reduce overall risk for metabolic syndrome, and potentially avoid the onset of type 2 diabetes.

The Fitness and Elite Athlete Metrics Profiles allow identification of hormone imbalances or vitamin D deficiency that can affect performance, increase injury risk, or prevent an athlete from competing at their highest level. It is best to start with a baseline before rigorous training begins, and to track your hormones throughout your training regimen to look for big changes that can indicate problems and to make sure that your hormones are optimally balanced right before a competition.

Advantages of Saliva & Blood Spot Testing

- ▶ Convenient sample collection at home - no phlebotomist required.
- ▶ Easy shipment of samples from home to the lab.
- ▶ Samples stable for several weeks at room temperature.
- ▶ Excellent correlation with serum/plasma assays.



MOST CONVENIENT

ZRT's at-home sample collection lets you test on a day that works for you.



MOST MEANINGFUL REPORT

ZRT's test report includes levels and personalized comments that provide insight into a patient's individual condition.



NO SUPPLEMENT SALES

ZRT is dedicated to testing. Unlike other labs, we don't sell supplements – which avoids any conflicts of interest.

TESTS INCLUDED IN EACH PROFILE:

	E2	Pg	T	DS	Cortisol	Diurnal Cortisol	SHBG	TSH	IT3	IT4	TPOab	Vit D2/D3	Insulin	HbA1c	TG, CH, HDL, LDL, VLDL	hsCRP	LH
Wellness Metrics	Saliva	Saliva	Saliva	Saliva		Saliva		Blood Spot				Blood Spot	Blood Spot	Blood Spot			
Wellness Metrics <i>Optional Add-ons</i>									Blood Spot	Blood Spot	Blood Spot				Blood Spot	Blood Spot	
Fitness Metrics	Blood Spot	Blood Spot	Blood Spot	Blood Spot	Blood Spot		Blood Spot	Blood Spot				Blood Spot			Blood Spot		
Fitness Metrics <i>Optional Add-ons</i>									Blood Spot	Blood Spot	Blood Spot		Blood Spot	Blood Spot		Blood Spot	Blood Spot
Elite Athlete Metrics	Saliva	Saliva	Saliva	Saliva		Saliva		Blood Spot	Blood Spot	Blood Spot	Blood Spot	Blood Spot					
Elite Athlete Metrics <i>Optional Add-ons</i>													Blood Spot	Blood Spot	Blood Spot	Blood Spot	Blood Spot



ZRT Laboratory's Wellness Metrics Profile

The adrenal, thyroid, and sex hormones work in concert with each other to maintain a state of balance in the body. When one or more hormones are outside optimal ranges, this affects the harmony of the whole system. Used as a screening tool, the Wellness Metrics Profile identifies specific imbalances of one or more hormones that govern key aspects of our health, contributing to changes in mood, energy, libido, altered metabolism, increased body fat deposition, food/sugar cravings, and increased risks for cardiometabolic disease and diabetes.

Who Benefits from Wellness Metrics Profile Testing?

Individuals with:

- Excessive fatigue
- Weight gain and/or excess belly fat
- Sugar cravings
- Chronic stress
- Low sex drive
- Interest in hormone therapy

Women with:

- Premenopausal or menopausal symptoms
- Menstrual bleeding abnormalities
- Infertility
- Excessive facial/body hair
- Hair loss
- PCOS



ZRT Laboratory's Fitness Metrics Profile

Hormones play an important role in our athletic performance. Being able to track your hormones over the course of a training regimen will enable you to prevent or reduce the risk of injury and ensure optimal performance when a competition occurs. The Fitness Metrics Profile will give you a basic understanding of where your hormone levels are and determine your vitamin D status, as well as blood lipid levels. By understanding your hormones, lipids, and vitamin D status, and tracking them over time, you can monitor how fitness training is affecting your overall health, and also prevent overtraining syndrome so you can be at your best for your next competition.

Who Benefits from Fitness Metrics Profile Testing?

People who are:

- Looking to start a fitness program
- Interested in losing weight
- Monitoring fitness or weight loss goals



ZRT Laboratory's Elite Athlete Metrics Profile

Like the Fitness Metrics Profile, the Elite Athlete Metrics Profile allows you to track your hormones over the course of a training regimen, but the sex hormone tests and cortisol are done in saliva instead of blood spot, allowing a diurnal assessment of cortisol production at 4 time points during the day. It also includes a full thyroid assessment in blood spot as standard, and vitamin D.

Who Benefits from Elite Athlete Metrics Profile Testing?

Individuals who:

- Train for competitions
- Compete at a high level
- Feel like they are "hitting a wall"
- Suffer from nagging or persistent injuries
- Are interested in seeing how their workouts affect their hormones



Wellness tests you should know...

YOUR LAB *of* CHOICE

www.zrtlab.com
1-866-600-1636
info@zrtlab.com

ZRT Laboratory
8605 SW Creekside Place
Beaverton, OR 97008

Free, helpful ZRT webinars:
www.zrtlab.com/webinars

- ▶ **Estradiol (E2)** is the predominant, and most potent, circulating estrogen. Saliva E2 represents the bioavailable fraction. It binds to estrogen receptors and activates over 250 genes that are involved in neurotransmitter synthesis, cell growth and proliferation, and synthesis of progesterone receptors.
- ▶ **Progesterone (Pg)** balances the actions of estradiol in the body and has wide-ranging physiological roles in fertility, protection of the heart and brain, maintenance of skin elasticity, and development of bone tissue.
- ▶ **Testosterone (T) & DHEA-S (DS)** help maintain libido and increase lean muscle mass and metabolic rate. Low androgens can cause reduced vitality and tolerance for exercise, low libido, irritability, loss of muscle mass and strength, weight gain, osteoporosis, and adverse changes in blood lipids. In women, high T and DHEA are linked to Polycystic Ovarian Syndrome (PCOS), insulin resistance, and abdominal weight gain.
- ▶ **Cortisol** imbalances can create problems with blood sugar control, sleep patterns, appetite, food cravings, and exercise tolerance. Under chronic stress, excessive cortisol production leads to insulin resistance and elevated circulating levels of glucose and insulin, which promotes fat storage in abdominal adipose tissue. Chronically elevated cortisol is a known risk factor for pre-diabetes and cardiovascular disease.
- ▶ **Sex Hormone Binding Globulin (SHBG)** is a protein made in the liver in response to circulating estrogens and thyroid hormone. SHBG binds with high affinity to T and its more potent metabolite dihydrotestosterone (DHT) and less so to E2. The amount of free or bioavailable hormone in saliva is reflective of the amount of T, DHT, and E2 that is released from SHBG in the bloodstream into tissues.
- ▶ **Thyroid Stimulating Hormone (TSH)** elevations, even within the high-normal range, are linked with hypothyroidism, low metabolic rate and weight gain. TSH rises in response to thyroid hormone levels lower than normal, signaling the thyroid gland to produce more thyroid hormones.
- ▶ **Free Triiodothyronine (fT3) & Free Thyroxine (fT4)** imbalances indicate hypo- or hyperthyroidism. Having a properly working thyroid is important for athletic performance as the thyroid influences energy processes during physical exercise. Thyroid hormones regulate cardiac function, protein (muscle) synthesis, and calcium homeostasis. Hypothyroidism is linked to chronic high cortisol. Imbalances in thyroid function can lead to low stamina, fatigue, depression, and low libido, and can have a negative impact on athletic performance through weight loss and tachycardia.
- ▶ **Thyroid Peroxidase (TPO)** is an iron-dependent enzyme responsible for oxidizing iodine and attaching it to tyrosine residues on the thyroid-specific protein thyroglobulin to begin the process of synthesizing T3 and T4. High TPO antibodies are a sign of autoimmune thyroid illness.
- ▶ **Vitamin D (D2, D3)** deficiency does not have obvious symptoms but has been linked with a wide range of diseases including susceptibility to infections like flu, cardiovascular disease, osteoporosis, stroke, rheumatoid arthritis, diabetes, depression, and several cancers.
- ▶ **Fasting Insulin (In)**, when elevated, is a marker of insulin resistance which precedes metabolic syndrome, PCOS, and type 2 diabetes. Increased levels, particularly in concert with cortisol lead to central obesity and increased inflammatory and other cardiovascular disease markers. Hyperinsulinemia also contributes to decreased testosterone levels in men, but increased testosterone and decreased ovulation in women.
- ▶ **Hemoglobin A1c (HbA1c)** is an indirect measure of the average circulating glucose levels over the previous three months. The normal range is between 4% and 5.6%, while levels between 5.7% and 6.4% are indicative of poor blood sugar control and prediabetes. An HbA1c of 6.5% or more is indicative of type 2 diabetes and consequently high cardiovascular disease risk.
- ▶ **Luteinizing Hormone (LH)** is a pituitary hormone that stimulates the production of reproductive hormones. Low levels can be caused by excessive testosterone supplementation or opioid painkiller use and are seen in exercise-induced amenorrhea.
- ▶ **Blood Lipids (triglycerides, total cholesterol, HDL, LDL, and VLDL)** are a barometer of cardiovascular disease risk that can be improved by fitness training and other lifestyle modifications such as better diet.
- ▶ **High-sensitivity C-reactive protein (hs-CRP)** gives an indication of inflammation in the body.