

# ADRENAL & THYROID BLOOD SPOT

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*Lifestyle, physical and psychological stresses put constant demands on the adrenal glands. If they get depleted adrenal fatigue or insufficiency may be experienced. Symptoms include fatigue, hypotension, and lowered resistance to stress, salt cravings, hypoglycaemia, and lowered immunity. Assessing cortisol, DHEA and other adrenal hormone levels may help to identify these patients and will assist effective therapy.*

*Thyroid abnormalities are one of the most common endocrine disorders affecting millions worldwide. Thyroid hormones are well known for their role in basal metabolic rate, development and growth. Hypothyroidism affects approximately 4-5% of the population whilst estimates for hyperthyroidism are 0.4-2%. Thyroid function testing should be considered in all high risk populations including the ageing population, postpartum women, those with autoimmune disorders, those with a family history of autoimmune thyroid disorders, patients with previous head, neck or thyroid surgery, and those with Down's or Turner's syndrome.*

*This test provides a focused overview of the adrenal and thyroid hormones: **Salivary DHEAs and Cortisol, and TSH, free T4, free T3, Thyroid peroxidase antibodies via blood spot.***

## Stress and Thyroid

Lifestyle, physical and psychological pressure puts constant demands on the adrenal glands. Although they are designed to cope with stress, changing physiological functions to deal with the 'fight or flight', the adrenal glands suffer in today's high stress society. Most individuals however who have depleted adrenal glands are not medical emergencies. They just go through life with fatigue, not knowing what is wrong with them. These people may be suffering from adrenal fatigue which is also known as hypoadrenia, sub-clinical hypoadrenia, sub-clinical adrenal exhaustion or adrenal insufficiency.

Thyroid abnormalities are one of the most common endocrine disorders, affecting many millions around the world. Thyroid hormones are well known for their role in basal metabolic rate; however, they affect development and growth.

The thyroid hormones interact with receptors found in the nucleus of every cell of the body and this interaction leads to the turning on and off of many genes and ultimately to the modification of many bodily functions. Therefore, it is understandable that abnormalities in the level of thyroid hormones can lead to a diverse array of symptoms involving the heart, brain, skin and reproductive systems.

Adrenal dysfunction correlates with thyroid dysfunction due to the fact that cortisol has the potential to block active T3 and TSH production.

SYMPTOMS AND CONDITIONS ASSOCIATED WITH ADRENAL INSUFFICIENCY	
Anxiety	Hypoglycemia
Alcoholism and drug addiction	Lack of stamina
Asthma, colds and other respiratory disorders	Mild depression
Allergies	Muscle weakness
Brain fog	Post-Traumatic Stress Syndrome
Chronic Fatigue Syndrome	Postural hypotension
Decreased ability to handle stress	Premenstrual syndrome & menopausal symptoms
Decreased immunity	Rheumatoid arthritis
Fatigue	Salt cravings
Flu-like symptoms	Sexual dysfunction
General lethargy	Where corticosteroids are involved in treatment

SYMPTOMS AND CONDITIONS ASSOCIATED WITH THYROID DYSFUNCTION	
HYPOTHYROIDISM	HYPERTHYROIDISM
Fatigue	Fatigue
Weight gain	Weight loss
Cold intolerance	Heat intolerance
Skin and hair dryness, hair loss	Increased sweating
Constipation	Frequent bowel movements
Poor concentration	Poor concentration
Depression	Anxiety and restlessness
Apathy	Irritability
Memory impairment	Insomnia
Muscle cramps and myalgias	Muscle weakness
Bradycardia, dyslipidemia	Palpitations, hypertension
Irregular, heavy menstrual periods	Irregular menstrual periods

### Blood and Saliva Testing

Blood spot is capillary blood obtained from pricking the skin to draw drops of blood. Saliva testing is safe, effective and easy to use test. Saliva measures free and available hormones.

## ADVANTAGES OF BLOOD SPOT AND SALIVA TESTING

Measures the free, bioavailable fraction of hormones

No blood draw required

Do-it-yourself at home collection offers ease of collection for patient

Collection times can be optimized, either at various times in a day or frequently

Blood spot provides results which correlate with conventional blood draw

### ADRENAL & THYROID BLOOD SPOT [Test code: 1416]

- ❖ Saliva: DHEAs (6-8am), Cortisol (6-8am, noon, 4pm, 8pm)
- ❖ Bloodspot: TSH, free T4, free T3, Thyroid peroxidase antibodies

### Other adrenal and thyroid tests available

- **Thyroid Profile - Basic (serum) [1113]:** TSH, free T4, free T3
- **Thyroid profile - Extensive (serum) [1114]:** TSH, FT3, FT4, rT3, TPO Ab, ATG Ab, TSH Receptor Ab
- **Reverse T3 (serum) [1112]:** Reverse T3
- **Thyroid Hormone Profile – Basic (urine) [1219]:** T4, T3, T4/T3 ratios
- **Adrenal Hormone Profile: Level 1 (spot & 24 hour urine):** Cortisol, DHEA, 17-Keto steroids, Total OH Corticoids
- **Adrenal Hormone Profile: Level 2 (spot & 24 hour urine):** Cortisol, DHEA, 17-Keto steroids, Total OH Corticoids, Ratios, Aldosterone, Pregnenetriol (Pregnenolone).
- **Adrenal Hormone Profile: Level 3 (24 hour urine) [1203]:** Cortisol, DHEA, 17-Keto steroids, Total OH Corticoids, Aldosterone, Androsterone, Etiocholanolone, 11-OH-Androsterone, 11-OH-Etiocholanolone, 11-Ketoetiocholanolone, 11-Ketoandrosterone, Pregnenetriol (Pregnenolone).
- **Adrenocortex Stress Profile (saliva) [1001]:** DHEAs-6-8am, Cortisol (6-8am, 12noon, 4pm, 8pm)
- **Cortisol Profile (saliva) [1003]:** Cortisol (6-8am, 12 noon, 4pm, 8pm).
- **Anabolic/Catabolic Index (spot & 24 hour urine):** 17-Keto steroids, Total OH Corticoids.
- **Cortisol & Cortisol Binding Globulin Test (serum) [1102]:** Cortisol, Cortisol Binding Globulin, Free Cortisol Index.
- **Adrenal Dried Urine [1507]:** DHEA, Total Cortisol, Free Cortisol, Total Cortisone, Free Cortisone, Tetrahydrocortisol, Tetrahydrocortisone

### How to order a test kit:

To order a test kit simply request the test name and/or test code on a NutriPATH request form test code and have the patient phone NutriPATH Customer Service on 1300 688 522.



Phone 1300 688 522 for further details  
[www.nutripath.com.au](http://www.nutripath.com.au)