

# ADRENAL & MALE HORMONE 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.*

*The aging male experiences a decrease in testosterone at a rate of 10% per decade from the age of 30. This reduction of testosterone and other androgens experienced as a consequence of the aging process has been named andropause or androgen deficiency of the aging male (ADAM). Symptoms associated with ADAM can be associated with impaired  $5\alpha$  reductase or aromatase activity, enzymes responsible for conversion of testosterone to dihydrotestosterone (DHT) or estrogens. Diagnosing and treating androgen deficiency is vital for improving quality of life and reducing age-related health decline in the aging male population.*

*This test provides a focused overview of the adrenal and male hormones: **Salivary DHEAs and Cortisol, and Estradiol (E2), Testosterone, SHBG and PSA via blood spot.***

## **Stress, Hormones and Aging**

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, subclinical hypoadrenia, subclinical adrenal exhaustion or adrenal insufficiency.

## 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 and menopausal symptoms
Decreased immunity	Rheumatoid arthritis
Fatigue	Salt cravings
Flu-like symptoms	Sexual dysfunction
General lethargy	Where corticosteroids are involved in treatment

## Androgen Deficiency in Aging Males (ADAM)

The aging male experiences a decrease in testosterone at a rate of 10% per decade from the age of 30. In addition, sex hormone binding globulin (SHBG) increases during this time-frame reducing the amount of free 'bioavailable' testosterone available to the body. To make matters worse, estradiol often rises during this process, leading to gynecomastia, increased body fat and increased prostate cancer risk. This reduction of testosterone and other androgens experienced as a consequence of the aging process has been named andropause. In contrast to women, the decline in hormone levels in men is gradual, partial, and is a slow progressive process without steps. Furthermore, the age and testosterone level at which each individual experiences clinical symptoms can be highly variable. Therefore alternative names have been suggested for this disorder including androgen deficiency in aging males (ADAM), partial androgen deficiency in aging males (PADAM) and symptomatic androgen deficiency in aging males (SADAM).

## SYMPTOMS AND CONDITIONS ASSOCIATED WITH ADAM

Alzheimer's disease	Thinning Skin
Hypogonadism	Hypopituitarism
Bone loss	Low libido
Depression and other mood disorders	Loss of body hair
Dementia	Myofascial pain
Fatigue	Obesity
Fibromyalgia	Poor memory
Heart palpitations	Low muscle tone & muscle aches
Erectile dysfunction	General aches & pains
Diminished sense of wellbeing	Adrenal fatigue

## Blood and Saliva Testing

Blood spot is capillary blood obtaining 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 & MALE HORMONE BLOOD SPOT [Test code: 1415]

- ❖ Saliva: DHEAs (6-8am), Cortisol (6-8am, noon, 4pm, 8pm)
- ❖ Bloodspot: Estradiol (E2), Testosterone, SHBG, PSA

## Other adrenal and male hormone tests available

- **Male Hormone Profile – Basic (saliva) [1007]:** DHEAs, E1, E2, Testosterone
- **Male Hormone Profile – Extensive (saliva) [1008]:** DHEAs, E1, E2, Testosterone, DHT, Androstenedione
- **Male Hormone Profile (serum) [1110]:** DHEAs, E2, E1, SHBG, Testosterone, calculated free Testosterone
- **Androgen Profile (24 hour urine) [1206]:** Cortisol, DHEA, 17-ketosteroids, Total Hydroxy corticoids, ratios, Testosterone, Allo-tetrahydrocortisol, Tetrahydrocortisol, Tetrahydrocortisone, Tetrahydrodeoxycortisol, Aldosterone, Androsterone, Etiocholanolone, 11OH-androsterone, 11OH-etiocholanolone, 11-ketoetiocholanolone, 11-ketoandrosterone, Pregnanetriol (Pregnenolone), DHT metabolite
- **Male Hormone Profile – Extensive (urine) [1216]:** T4, T3, T4/T3 ratios, Cortisol, DHEA, Testosterone, E1, E2; 17-ketosteroids, Total Hydroxy corticoids, ratios, Allo-tetrahydrocortisol, Tetrahydrocortisol, Progesterone, Tetrahydrocortisone, Tetrahydrodeoxycortisol, Aldosterone, Androsterone, Etiocholanolone, 11OH-androsterone, 11OH-etiocholanolone, 11-ketoetiocholanone, 11-ketoandrosterone, Pregnanetriol (Pregnenolone), DHT metabolite, 20HE1, 16 $\alpha$ OHE1, 2:16 ratio, 4OHE1, Melatonin, Na, Ca, P, K, Mg, Cr
- **Male Hormone Profile (spot urine) [1315]:** T4, T3, T4/T3 ratios, Cortisol, DHEA, Testosterone, E1, E2
- **Male Hormone Blood Spot – Basic [1404]:** Estradiol (E2), Testosterone, SHBG, DHEAS, Cortisol, PSA
- **PSA Blood Spot [1413]:** Prostate Specific Antigen (PSA)
- **Adrenals & Male Hormone Blood Spot [1415]:** DHEAs (6-8am), Cortisol (6-8am, noon, 4pm, 8pm); Estradiol (E2), Testosterone, SHBG, PSA
- **Adrenal Hormone Profile: Level 1 (spot & 24 hour urine):** Cortisol, DHEA, 17-Keto Steroids, Total OH Corticoids, ratios.
- **Adrenal Hormone Profile: Level 2 (spot & 24 hour urine):** Cortisol, DHEA, 17-Keto Steroids, Total OH Corticoids, ratios, Aldosterone, Pregnanetriol (Pregnenolone).
- **Adrenal Hormone Profile: Level 3 (24 hour urine) [1203]:** Cortisol, DHEA, 17-Keto Steroids, Total OH Corticoids, ratios, Aldosterone, Androsterone, Etiocholanolone, 11-OH-Androsterone, 11-OH-Etiocholanolone, 11-Ketoetiocholanone, 11-Ketoandrosterone, Pregnanetriol (Pregnenolone).
- **Adrenocortex Stress Profile – Basic (saliva) [1001]:** DHEAs, Cortisol (6-8am, 12noon, 4pm, 8pm)
- **Anabolic/Catabolic Index (spot & 24 hour urine):** 17-Keto steroids, Total OH Corticoids, ratios.
- **Cortisol & Cortisol Binding Globulin Test (serum) [1102]:** Cortisol, Cortisol Binding Globulin, Free Cortisol Index.

## 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)