# Adrenal Saliva Test Interpretation and Example

## Understanding Stages of Adrenal Fatigue

There's a progression in the stages of adrenal exhaustion that are common to most who suffer from adrenal fatigue and burnout. The stress can start **as early as your childhood** – abuse, bullying, family financial stress, fighting between your parents, divorce, feeling unsafe – all contribute. For a lot of people, adrenal burnout stems back from when they were very little.

### Stage Progression

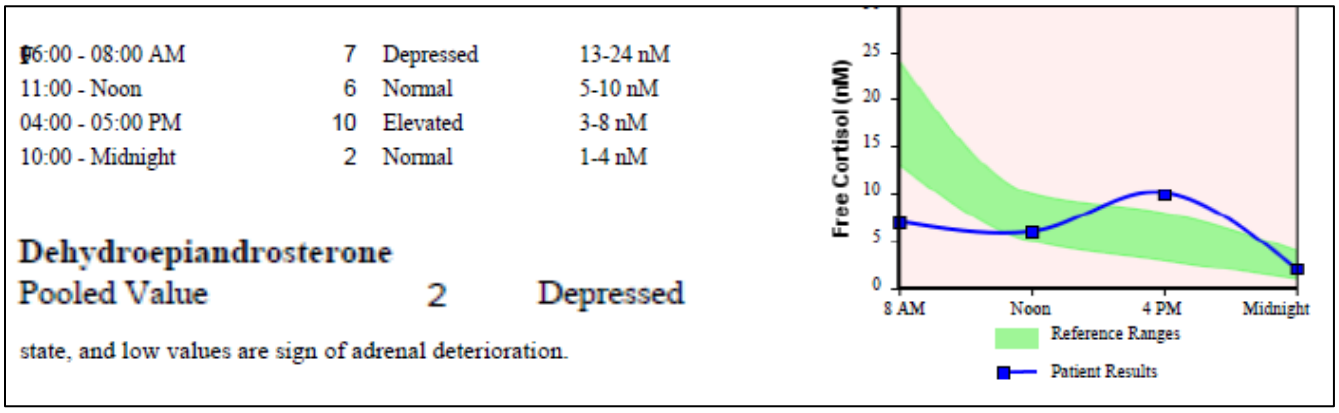
- Generally, you're born in the **"Normal" Stage**, although not always depending on your mom's health and stress during pregnancy and how easy or difficult your birth was.
- First stop along the way to adrenal fatigue is what's called the **Alarm Stage**, and that's where your adrenals are really overactive, cortisol levels are high, but it's not causing you damage…yet.
- Next is **Stage 1** of adrenal exhaustion, hallmarked by very high cortisol levels, just like the alarm stage. The difference is that DHEA, considered a growth and repair hormone and an anti-aging hormone is decreased in Stage 1 as a result of chronically elevated cortisol levels.
- **Stage 2** is where the total cortisol starts to fall back into the normal range, because your adrenals are getting too tired to handle the load. It's easy to confuse this stage with normal stage if you don't test DHEA, which decreases as a result of chronically high cortisol. An Adrenal Stress Index Salivary test done in Stage 2 will often show peaks and valleys of cortisol and lower than optimal DHEA.
- In **Stage 3**, total cortisol is low and DHEA is low. Long periods of stress precede Stage 3. Sometimes in Stage 3 there's a temporary rise in DHEA as one last heroic attempt to restore balance.
- After Stage 3 is **Adrenal Failure**. At this point it's hard to even get up off the couch and it's often referred to as "chronic fatigue syndrome".

The stage of adrenal health/fatigue determines the most appropriate diet, herb, lifestyle, and supplement protocol. It generally takes at least 3-4 months to restore adrenal function with the right plan in place. It can take an even longer if the depletion has existed for an extended period of time.

# Interpreting the Adrenal Stress Index Salivary Hormone Test

In order to be classified as being in one of the three stages of adrenal fatigue, the following guidelines apply when interpreting your **Adrenal Stress Index** Test:

- **Stage 1:** Ideal **total cortisol** is 38; low normal DHEA is 6 or 7, ideal is 8 or above. If total cortisol is high, at least one cortisol reading is elevated and DHEA is borderline low or low, it's most likely stage 1, the initial stage of adrenal fatigue.
- **Stage 2:** If **total cortisol** is normal and morning, noon, and/or afternoon cortisols are low or borderline low and DHEA is borderline low or low, (below 7) it's likely stage 2, the intermediate stage of adrenal fatigue.
- **Stage 3:** If both **total cortisol** and DHEA are low, and most cortisols are low or borderline low, it's likely stage 3, the advanced state of adrenal fatigue.



| | | | |
|---|---|---|---|
| 06:00 - 08:00 AM | 7 | Depressed | 13-24 nM |
| 11:00 - Noon | 6 | Normal | 5-10 nM |
| 04:00 - 05:00 PM | 10 | Elevated | 3-8 nM |
| 10:00 - Midnight | 2 | Normal | 1-4 nM |

**Dehydroepiandrosterone**

**Pooled Value** 2 **Depressed**

state, and low values are sign of adrenal deterioration.



While it's really quite a bit more complicated than this, it's a great starting point and will give you good direction for beginning to correct the problem. If cortisol level is high and DHEA is high normal, it's what's called the **"alarm state"** in the model of Hans Selye, a Nobel Prize winning scientist who first classified adrenal fatigue. From this state, the adrenals will eventually burn out, resulting in lower cortisol and DHEA production.

Under times of stress, the body will divert to cortisol the hormone **pregnenolone**, the precursor, also called the "mother" (or "grandmother") of all steroid hormones. When pregnenolone gets diverted to cortisol, it's at the expense of DHEA and sex hormones and the result includes accelerated aging and decreased libido. One of DHEA's functions is to lower cortisol, so when cortisol is low, be very careful about supplementing DHEA. It's better to supplement with more pregnenolone and only tiny amounts of DHEA, if any. Nutrient support via whole foods, herbs, and nutritional supplements is important in all stages.

If DHEA is high normal or high and cortisol is low, it could be a very advanced stage of adrenal fatigue in which the body is making a last ditch attempt to recover. Usually, if this is the case, there are low levels of SIgA and/or 17-OH progesterone.

## Chart 1: Adrenal Salivary Testing Interpretation

*Use **Chart 1** to determine the stage of Adrenal Fatigue based on Adrenal Salivary Testing.*

| | | Normal | Alarm State | Stage 1 | Stage 2 | Stage 3 |
|---|---|---|---|---|---|---|
| **ASI Results** | **Total Cortisol** | normal | high | high | normal | low |
| | **DHEA** | normal | normal | low | low | low |
| | **SIgA** | normal | normal | normal or low | normal or low | low |
| | **17-OH-Progesterone** | normal | normal | normal or low | normal or low | low |

## Chart 2: Adrenal Fatigue Staging Based on Signs and Symptoms

*Use **Chart 2** to determine roughly the stage of adrenal fatigue without the salivary testing.*

| | | Normal | Alarm State | Stage 1 | Stage 2 | Stage 3 |
|---|---|---|---|---|---|---|
| **Signs and Symptoms** | **Blood Pressure** | normal | high or normal | high or normal | normal or low | low |
| | **Energy** | normal | wired | Wired and tired – mid-day slump and awake at bedtime | Tired, possibly with spikes of energy | Very tired |
| | **Immune system** | normal | normal | Possibly impaired | Probably impaired | Likely impaired |
| | **Libido** | normal | normal | Possibly low | Probably low | Likely low |
| | **Salt Cravings** | no | no | no | yes | strong |
| | **Perspiration** | normal | normal | excessive | variable | minimal |
| | **Memory** | normal | normal | intermittent | failing | poor |