



Order: 999999-9999



Test: X999999-9999-1

Client #: 999999

Doctors Data Inc

123 Main St.

St. Charles, 60174 USA

Patient: Sample Patient

Id: 999999

Age: 40 DOB: 01/01/1984

Sex: Female

Menopausal Status: Pre-menopausal,

Sample Collection Date/Time

Midsleep 11/14/2024 04:07

Dinnertime 11/13/2024 19:19

Bedtime 11/13/2024 21:07

Waking 11/14/2024 07:36

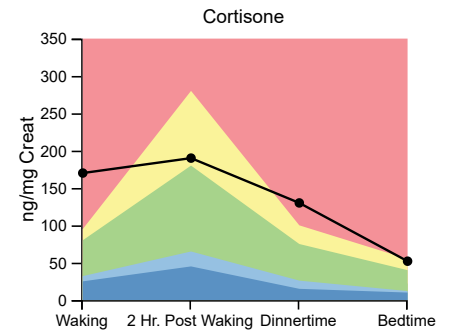
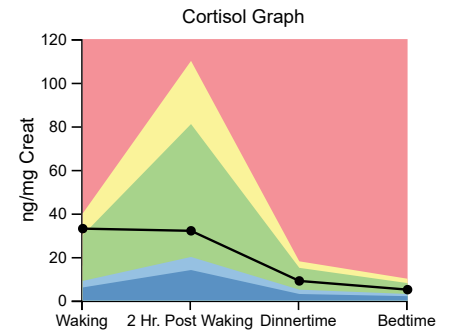
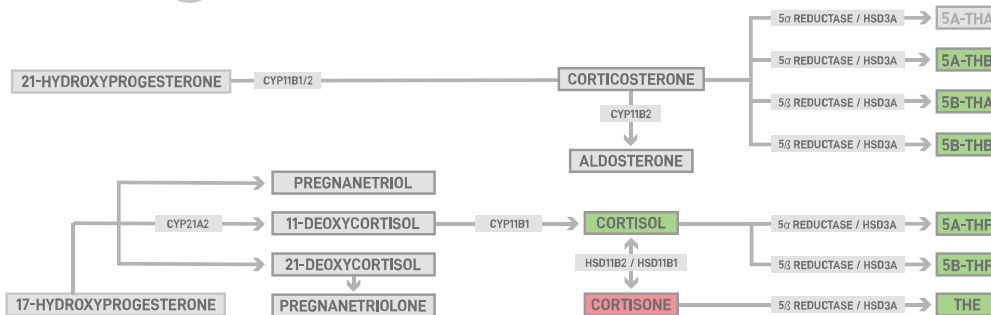
2 Hr. Post Waking 11/14/2024 09:47

Collection Period Multipoint daily

Date Received 11/20/2024

Date Reported 11/27/2024

C



| Free Cortisol and Cortisone        | Result  | Unit            | L | WRI | H | Reference Interval |
|------------------------------------|---------|-----------------|---|-----|---|--------------------|
| Cortisol Waking <sup>‡</sup>       | 33      | ng/mg Creat     |   |     |   | 6 – 40             |
| Cortisol Waking+2hrs <sup>‡</sup>  | 32      | ng/mg Creat     |   |     |   | 14 – 110           |
| Cortisol Dinnertime <sup>‡</sup>   | 9       | ng/mg Creat     |   |     |   | 3 – 18             |
| Cortisol Bedtime <sup>‡</sup>      | 5       | ng/mg Creat     |   |     |   | 2 – 10             |
| Cortisol/day <sup>‡</sup>          | (F) 28  | ng/mg Creat/Day |   |     |   | 9 – 35             |
| Cortisone Waking <sup>‡</sup>      | 170     | ng/mg Creat     |   |     |   | 25 – 95            |
| Cortisone Waking+2hrs <sup>‡</sup> | 190     | ng/mg Creat     |   |     |   | 45 – 280           |
| Cortisone Dinnertime <sup>‡</sup>  | 130     | ng/mg Creat     |   |     |   | 15 – 100           |
| Cortisone Bedtime <sup>‡</sup>     | 52      | ng/mg Creat     |   |     |   | 10 – 55            |
| Cortisone/day <sup>‡</sup>         | (E) 150 | ng/mg Creat/Day |   |     |   | 30 – 95            |
| Creatinine Waking                  | 51.0    | mg/dL           |   |     |   | 30 – 225           |

**Notes:**

WRI – Within Reference Interval - represented by bracket and stated ranges on report, Dark Blue = Below RI, Light Blue = WRI low, Green = Optimal, Yellow = WRI high, Red = Above RI, <dl = result below detection limit

<sup>‡</sup>This test was developed and its performance characteristics determined by Doctor's Data Laboratories in a manner consistent with CLIA requirements. The U.S. Food and Drug Administration (FDA) has not approved or cleared this test; however, FDA clearance is not currently required for clinical use.

Methodology: LCMS QQQ



## Adrenal Corticoid Metabolites; urine



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| Free Cortisol and Cortisone                  |          | Result | Unit                             | L | WRI | H | Reference Interval |
|----------------------------------------------|----------|--------|----------------------------------|---|-----|---|--------------------|
| Creatinine Waking+2hrs                       |          | 73.0   | mg/dL                            |   |     |   | 30 – 225           |
| Creatinine Dinnertime                        |          | 15.3   | mg/dL                            |   |     |   | 30 – 225           |
| Creatinine Bedtime                           |          | 24.8   | mg/dL                            |   |     |   | 30 – 225           |
| Creatinine/day                               |          | 40.2   | mg/dL/Day                        |   |     |   | 30 – 225           |
| Corticoid Metabolites and DHEA               |          | Result | Unit                             | L | WRI | H | Reference Interval |
| Tetrahydrodehydrocorticosterone <sup>‡</sup> | (5B-THA) | 71     | ng/mg Creat/Day                  |   |     |   | 40 – 130           |
| 5β-Tetrahydrocorticosterone <sup>‡</sup>     | (5B-THB) | 94     | ng/mg Creat/Day                  |   |     |   | 58 – 240           |
| 5α-Tetrahydrocorticosterone <sup>‡</sup>     | (5A-THB) | 290    | ng/mg Creat/Day                  |   |     |   | 90 – 380           |
| 5α-Tetrahydrocortisol <sup>‡</sup>           | (5A-THF) | 580    | ng/mg Creat/Day                  |   |     |   | 450 – 1300         |
| 5β-Tetrahydrocortisol <sup>‡</sup>           | (5B-THF) | 1470   | ng/mg Creat/Day                  |   |     |   | 720 – 2050         |
| Tetrahydrocortisone <sup>‡</sup>             | (THE)    | 3050   | ng/mg Creat/Day                  |   |     |   | 1650 – 4000        |
| Dehydroepiandrosterone <sup>‡</sup>          | (DHEA)   | 13     | ng/mg Creat/Day                  |   |     |   | 15 – 190           |
| Dehydroepiandrosterone Sulfate <sup>‡</sup>  | (DHEAS)  | 17     | ng/mg Creat/Day                  |   |     |   | 45 – 3000          |
| Ratios and Calculations                      |          | Result | Unit                             | L | WRI | H | Reference Interval |
| DHEA+DHEAS <sup>‡</sup>                      |          | 30     | ng/mg Creat/Day                  |   |     |   | 50 – 2000          |
| THE+5A-THF+5B-THF <sup>‡</sup>               |          | 5100   | ng/mg Creat/Day                  |   |     |   | 2600 – 7200        |
| 5A-THF+5B-THF/THE <sup>‡</sup>               |          | 1      | (Cortisol/Cortisone Metabolites) |   |     |   | 0.6 – 1.2          |
| Cortisol/Cortisone <sup>‡</sup>              |          | 0.19   | (11B HSD activity)               |   |     |   | 0.18 – 0.60        |
| 5A-THF/5B-THF ratio <sup>‡</sup>             |          | 0.40   | (alpha vs beta metabolism)       |   |     |   | 0.19 – 0.82        |



### Adrenal Corticoid Metabolites Information

Under stress, the HPA axis controls the secretion of cortisol from the adrenal cortex. In saliva and blood, cortisol levels are the highest 30 minutes after waking and gradually decline throughout the day (measured by "cortisol awakening response" – CAR). When testing cortisol in urine throughout the day, highest value is typically seen during the second timed collection. Adrenal corticoid page provides four different aspects of cortisol metabolism and excretion: graphical pattern of cortisol and cortisone excretion, average cortisol and cortisone per day, metabolized cortisol, and metabolic preference for cortisol or cortisone. Cortisol and cortisone output is graphed in a diurnal pattern over the course of the day. Metabolized cortisol calculation includes the daily metabolites of cortisol (5A-THF, 5B-THF) and cortisone (THE) which may be a better representation of daily cortisol output than measuring cortisol and cortisone alone.

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## Androgens

### ↓ Dehydroepiandrosterone (DHEA)

Dehydroepiandrosterone (DHEA) is a hormone predominantly produced in the adrenal glands which serves as a precursor hormone for androstenedione and eventually estrone and testosterone. DHEA naturally declines with age and under the influence of chronic and sub-chronic stress. Declining DHEA may manifest as decreased cognition, libido, mood, flexibility, and cardiovascular health.

### ↓ Dehydroepiandrosterone Sulfate (DHEAS)

Dehydroepiandrosterone sulfate (DHEAS), the sulfated form of dehydroepiandrosterone (DHEA), is primarily produced by the zona reticularis of the adrenal glands and serves as a reservoir for DHEA. Like DHEA, DHEAS naturally declines with age. Research suggests symptoms of declining DHEAS can manifest as decreased cognition, libido, mood, flexibility, and cardiovascular health.

## Corticoids

### ↑ Cortisone

Cortisone is the inactive form of cortisol. Elevations of cortisone may reflect high cortisol production, excessive 11B-HSD2 activity, or insufficient conversion by 11B-HSD1.

### ↓ DHEA + DHEAS

DHEA and DHEAs are produced in the adrenal gland and serve as precursors to androgens and estrogens. Due to the interconversion between via SULT2A1 and/or STS, the sum of DHEA and DHEAs may be a better representation of total DHEA synthesis.

### ↓ Dehydroepiandrosterone (DHEA)

Dehydroepiandrosterone (DHEA) is a hormone predominantly produced in the adrenal glands which serves as a precursor hormone for androstenedione and eventually estrone and testosterone. DHEA naturally declines with age and under the influence of chronic and sub-chronic stress. Declining DHEA may manifest as decreased cognition, libido, mood, flexibility, and cardiovascular health.