**Expanded Female Hormone Panel**

<table>
<thead>
<tr>
<th>Test</th>
<th>Description</th>
<th>Result</th>
<th>Ref Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>DHEA</td>
<td>Dehydroepiandrostosterone Free [DHEA + DHEA-S]</td>
<td>Pooled Value 10 Normal</td>
<td>Adults (M/F): 3-10 ng/ml</td>
</tr>
<tr>
<td>TTF</td>
<td>Free Testosterone</td>
<td>Cycle Average 68 Elevated</td>
<td>Borderline: 6-9 pg/ml Normal: 10-38 pg/ml</td>
</tr>
</tbody>
</table>

In the absence of exogenous hormone intake, elevated Testosterone in women is suggestive of ovarian cysts.
I. Progesterone (P) Interpretation

Luteal Surge of Progesterone Occurred Around Day 13
Luteal Phase Length is Normal, Expected Range 12-18 days

Luteal Phase Progesterone Analysis:
Net Output: 1152 pg
Total Output: 1560 pg
Relative Net: 74 %, Expected Minimum is 55%

Luteal P Output Distribution:
Patient approached 90% of Progesterone Output by Day 25 of Period or by Day 12 of Luteal Phase.
Optimal Progesterone Output Distribution

II. Estradiol Interpretation

Normal Timing of Preovulatory Estradiol Peak with Respect to Cycle Duration.
Normal Preovulatory Estradiol Peak Value.
Normal Luteal Phase Estradiol Output
Optimal Preovulatory Timing of Estradiol Peak with Respect to Ovulation

Follicular E2 Surge Analysis
This ratio is an index of ovarian capacity to respond to FSH stimulation.
A low ratio indicates a weak FSH Surge or low ovarian capacity and response.
Patient value: 3.10 Acceptable values: > 1.8

Estradiol Analysis:
Total Cycle Estradiol Output: 101 pg Range: 22 - 110 pg
Preovulatory Phase Estradiol Output: 46 pg Borderline Low: 22 - 31 pg
Luteal Phase Estradiol Output: 55 pg
Relative Luteal Phase Estradiol Output: 54 %

Follicular Estrogen Priming Index (E^{F})
(a) The $E^{F}$ is a quantitation of Estrogen Exposure in target tissues (uterus, breast, brain, bone, skin, etc.) during the follicular phase. A sufficient Estrogen exposure is required for optimal tissue response. Low $E^{F}$ values favor reduced functional impact of Progesterone on E2 sub-primed tissue.

(b) The index is a function of concentration and duration of Estrogen exposure. Upper and lower reference values are individualized for each patient based on the period length.

(c) Significance: The genomic influence of Estrogen on target tissue structure and organization is cumulative and prolonged:
Example 1 - Breast, fat cell, and fibroid tissue proliferation under increased Estrogen influence is rather lasting; because once formed, the maintenance of the proliferated tissue requires minimal amounts of Estrogen.
Example 2 - Degenerative effects of suboptimal Estrogen (E2) and Progesterone (P1) on bone tissue are also prolonged. Bones require optimal E2 and P1 balance for long periods of time to reverse osteoporosis.
$E^{F}$ Patient value: 951 Reference: 272 - 1360

III. Progesterone: Estradiol Balance (P/E2)

Luteal P/E2 target range: 30 - 40
The Average Ratio of Luteal Phase Output of Progesterone to Estradiol = 28
**The FSH Surge** must attain a certain level (amplitude) to mediate maturity and selection of the dominant follicle, and promote optimal conversion of androgen to estrogen.

Patient Value: 2.28 Range: 2.3 - 4.7

**The FSH Output** reflects the pituitary capacity to release FSH in the periovulatory time window. This biomarker is an index for the NET effect of all higher centers and other hormones combined on FSH production. The FSH output tends to increase with age and also varies with diet, stress level, hormone and medication use ...

Patient Value: 484.00 Range: Variable

**The Follicle Response Index** is a biomarker of the quality of follicular response to FSH stimulation. Lower values reflect reduced ovarian sensitivity to FSH. The lowest sensitivity occurs at menopause and on.

Patient Value: 1.35 Range: 0.5 - 2.3

**The LH Surge** must attain a certain threshold to induce, and trigger ovulation to stimulate the formation of a viable corpus luteum for progesterone production.

Patient Value: 1.76 Range: 3.3 - 6.6

**The LH Output** reflects the pituitary capacity to release LH at ovulation time and in the early luteal phase. The timing and output of LH reflects the net effect of all influences (diet, stress, hormones, age ... etc) on this gonadotropin.

Patient Value: 115.00 Range: Variable

**The Corpus Luteum Response Index** reflects the degree of corpus luteum responsiveness to LH measured as luteal progesterone output. Corpus size, differentiation + sensitivity determine the response. LH increases with age as ovarian response blunts.

Patient Value: 42.03 Range: 8 - 27

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**Example of Restoration Plan:**

CONSIDER USE OF GRADUATED PROGESTERONE SUPPLEMENTS FROM AROUND DAY 16 THROUGH END OF CYCLE.

**TYPICAL EXAMPLE OF ORAL MICRONIZED PROGESTERONE AUGMENTATION - AM & PM**

DAYS 16 TO 18 B.I.D. 50-75 MG
DAYS 19 TO 21 B.I.D. 75 MG
DAYS 22 TO 23 B.I.D. 50-75 MG
DAYS 24 TO 25 B.I.D. 35-50 MG
DAYS 26 TO 27 B.I.D. 25-35 MG
N.B. TRANSMUCOSAL (e.g. SUBLINGUAL) DOSING IS 1/2 TO 2/3 OF ORAL DOSING.

Diagnosis Code: Not Provided To The Lab.

Please Note: All examples of patient treatment or therapy are for illustrative and/or educational purpose. Use this report in context of the clinical picture and patient history before initiating hormone or other therapies or recommendations.

COURTESY INTERPRETATION of test and technical support are available upon request, to Physician Only.
Qualitative Patient Report For: FEMALE PATIENT

This Report not Applicable in Cases of Deviation off Recommended Collection Schedule, or Hormone Overdosing.

Description:
This hormone panel maps the changes in estrogen and progesterone throughout your cycle. It also provides your cycle average for both DHEA and Testosterone hormones. The expanded version of the panel, when ordered, will provide you with additional information on how well your brain hormones, FSH and LH, are regulating your ovaries.

What do my results tell me? Your results provide information about 3 important aspects of your hormone cycle.

I. Time Elements
* Your cycle length was reported as 27 days.
* The first part of the cycle before egg release was 13 days.
   In this phase (Follicular) the egg matures and the various tissues are primed with estrogen from the ovary to prepare for progesterone exposure in the second half of the cycle.
* Your estrogen priming is normal.
* Ovulation: Your cycle showed an ovulation between days 12 and 14. Ovulation is the release of an egg
   Your Luteal Phase, 2nd half of cycle, starts with ovulation
   The luteal phase of your cycle was Normal with a duration of 14 days.

Notes: In the 2nd half of your cycle several things happen:
- The ovaries are prompted by the brain to produce progesterone.
- The uterus lining changes under the influence of progesterone.
- The recruitment of underdeveloped eggs for the next cycle takes place.
- The balance of progesterone to estrogen plays an important role in cognitive, mood, sleep and other functions.

II. Your Individual Hormones

Your Progesterone State
Following ovulation the amount of progesterone released in the second half of your cycle seems sufficient.

Your Estrogen State
The estrogen production by your ovaries is normal. The tissue exposure to estrogen in the first half of the cycle (Estrogen priming) appears normal thus allowing a more optimal progesterone effect to follow in the second half of your cycle.

Your DHEA Level
The DHEA value on your report is derived from several samples you submitted, and can be considered a cycle average.
Your average DHEA value is 10 ng/ml. Reference Range: 3-10 ng/ml

Your Testosterone Level
The testosterone value reported reflects the average concentration of several specimens submitted.
Your average testosterone value is 68 pg/ml. The borderline range is 6-9 pg/ml, normal is 10-38 pg/ml.

III. Progesterone To Estrogen Balance
The balance of hormones in the luteal phase is acceptable.

Course of Action
Your health care provider may use the Data in the quantitative report section to construct your treatment plan.
Please note most hormone treatments have gradual and cumulative effects. Synchronizing the treatment plan with your hormone patterns as shown in this report helps insure a logical, gentle and body-harmonized approach.