

DUTCH CYCLE MAPPING™ PLUS - PROVIDER INFORMATION SHEET



The DUTCH Cycle Mapping™ PLUS maps estrogen and progesterone through the monthly menstrual cycle, adding comprehensive hormone metabolites along with the cortisol awakening response (CAR)



WHY USE DUTCH CYCLE MAPPING™ PLUS?

The DUTCH Cycle Mapping™ PLUS not only maps estrogen and progesterone through the monthly menstrual cycle but also adds the comprehensiveness of all the hormone metabolites along with the cortisol awakening response (CAR).

Hormonal balance is key. Fluctuating levels of estradiol and progesterone play a major role in a woman's overall health. This panel is designed for cycling women who struggle with ongoing symptoms such as monthly migraines, fertility issues, or PCOS. The addition of the cortisol awakening response (CAR), a transient, immediate rise in cortisol upon awakening (distinct from the diurnal rhythm), provides a fuller assessment of hormone fluctuations, baseline stress response, and reflects a patient's ability to cope with anticipated challenges. CAR also shows a patient's perception of control around chronic stress, providing insight into HPA resiliency.

Altered cortisol is seen in pain and migraines as well as psychiatric issues such as depression. In patients with migraines, altered cortisol may be of physiological origin and can contribute to pain and depression, especially when a high CAR is found. Estrogen fluctuations have also been linked to migraine frequency for some women, combining the monthly measurement, hormone metabolites and the CAR is ideal for fully assessing hormonal interactions with patients who have migraines.

In addition, women with PCOS often also have altered HPA axis function. As many providers know, PCOS is a syndrome but not all women have all the symptoms, so treatment should be guided by the unique set of circumstances an individual woman faces. And although the syndrome is named after dysfunction in the ovaries, it is truly a syndrome involving the hypothalamic signaling, and some women experience adrenal-sourced androgen excess. Thoroughly assessing the HPA axis is essential for starting on the right path in treating PCOS.



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Dealing with fertility issues can be stressful, and stress increases the incidence of anovulatory cycles and poor fertility rates. When assessing the cycle for issues, providers may also benefit from seeing a patient's baseline response to stress (CAR) as it may be impacting pregnancy.

WHEN IS DUTCH CYCLE MAPPING™ PLUS RECOMMENDED?

- When struggling with infertility
- For women with cycling hormones and no menses
- Partial hysterectomy (ovaries intact but no uterus)
- Ablations
- Mirena IUD (no actual menstrual bleeding due to IUD but still has hormonal symptoms)
- Women with irregular cycles
- PCOS
- If the luteal phase shifts month-to-month
- Unsure when to test due to long or short cycles
- Women whose hormonal symptoms tend to fluctuate throughout the cycle
- When suffering PMS, mid-cycle spotting, migraines, etc.

WHEN IS DUTCH CYCLE MAPPING™ PLUS NOT NEEDED? (DUTCH COMPLETE™ OR DUTCH PLUS® IS SUFFICIENT)

- Postmenopausal women
- Women on birth control
- Women with cycles following the expected pattern

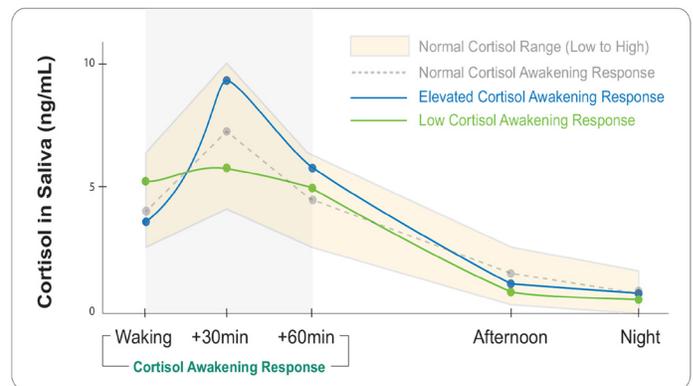
EASY SAMPLE COLLECTIONS

DUTCH Cycle Mapping™ PLUS uses more sample collections for mapping (first-morning urine collections) and performs testing on targeted samples based on the actual length of the cycle. In addition, one full day of four (4) urine and five (5) or six (6) saliva samples are collected, providing the comprehensive hormone metabolite and cortisol awakening response (CAR) results.

WHAT CAN INCLUDING THE DUTCH PLUS® AND CAR TELL YOU?

Even though a patient may have "normal" free cortisol levels throughout the day, that does not always mean everything is functioning properly. The graph below shows two good examples. A blunted or exaggerated CAR can appear even when single samples return "normal" results. The HPA axis might not be appropriately responding when faced with a stressor, even when cortisol levels are fluctuating nicely throughout the day.

Daily Free Cortisol with Cortisol Awakening Response



DO DRIED URINE SAMPLES COMPROMISE THE ANALYSIS?

Dried urine samples are accurate for hormone testing and values correlate to liquid samples.

