

# DUTCH COMPLETE™ - PROVIDER INFORMATION SHEET



## HOW DOES DUTCH COMPARE TO OTHER HORMONE TESTS



### WHY USE DUTCH?

**The Easiest Patient Collection:** Patients collect just four or five dried urine samples over a 24-hour period. Dried samples are stable for several weeks making them convenient to ship worldwide.

**Analytical and Clinical Validation:** Precision Analytical's testing methods go through a rigorous validation process to verify accuracy, recovery, and linearity. We pride ourselves in being relentlessly pursuing the most accurate and precise techniques available for testing. See the data on the next page (especially the analytical and clinical validation of this powerful new test model).

**Effective HRT Monitoring** DUTCH testing was designed to be optimally effective for most forms of hormone replacement therapy. Unique methods are used for improved monitoring of oral progesterone and vaginal hormones.

**DUTCH vs. Saliva Testing** - While the free cortisol in saliva has clinical value, measuring a patient's HPA-Axis status, measuring cortisol metabolite status, should be measured to avoid misdiagnosis. Cortisol clearance is abnormal in many hormonal imbalances and HRT monitoring. Dried samples make them convenient to ship.

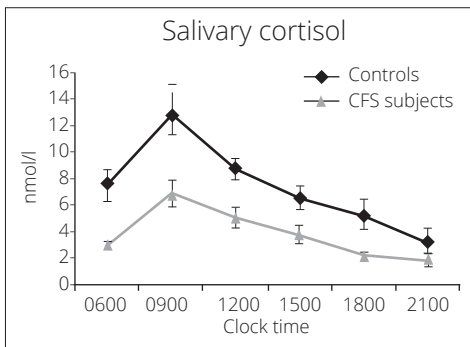
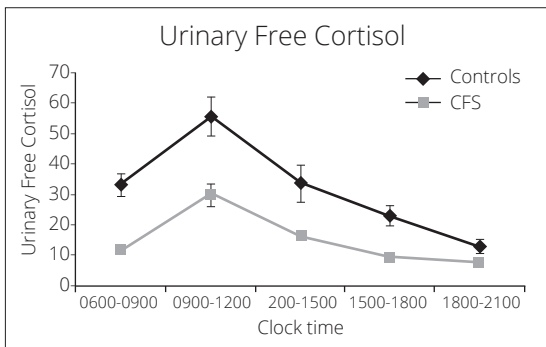
**DUTCH vs. Serum Testing** - While the most accepted testing method (due to cleared analyzers that are relatively accurate), serum testing is lacking in some areas. We pride ourselves in being the most accurate and precise techniques available for testing (especially metabolite testing) to support your data.

**DUTCH vs. 24-Hour Urine Testing** - There are two drawbacks to 24-hour urine testing. Collection is cumbersome, and collection is error-prone (Tanaka et al., 2008). DUTCH testing was designed to be optimally effective for most forms of hormone replacement therapy. Unique methods are used for improved monitoring of oral progesterone and vaginal hormones. DUTCH eliminates the

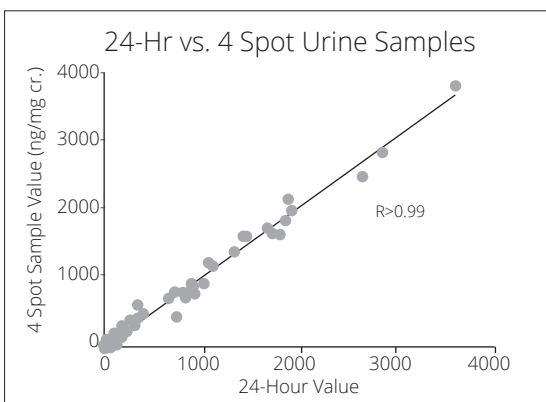


## DUTCH - Dried Urine Test for Comprehensive Hormones

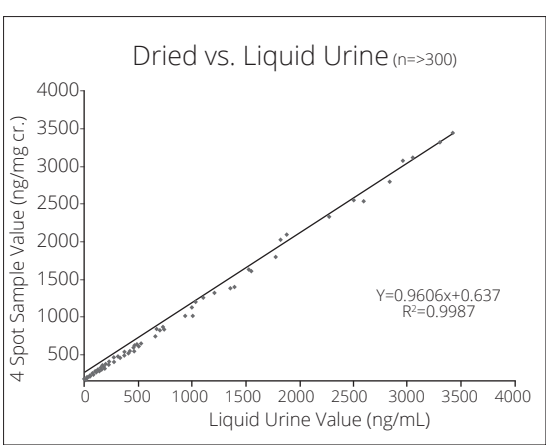
This advanced hormone testing was developed to offer the most extensive profile of sex and adrenal hormones along with their metabolites. Additionally, the daily (diurnal) pattern (6-OHMS), 8-OHdG, and six organic acids. This information is available by any other method.



Jerjes (2005) studied the diurnal pattern of free cortisol in chronic fatigue patients (CFS) in saliva and urine. There is a very good agreement between the two tests (see graph).



**Do values compare favorably to 24-hour collections**  
 The DUTCH correlation to 24-hour collections (see graph, left). Because the dried samples are collected over the course of the day (6-8 hours overnight), they represent the entire day's average of the four samples. This is especially true for all hormones other than cortisol, which can be presented relative to creatinine to correct for hydration. This is an excellent correlation to 24-hour collections, a very respectable alternative to the addition of diurnal free cortisol.



**Do dried samples compromise the analysis**  
 Dried samples are accurate for hormone analysis and correlate to liquid samples (see graph). Once they are dried and easier to handle.

**Methods Used for Testing**  
 Cortisol, cortisone, 8-OHdG, melatonin, and acid tests and metabolites related to adrenal function are analyzed by LC-MS/MS. The remaining hormones are analyzed by immunoassay. The most accurate methods available for hormone testing. These methods show increased accuracy when used in typical serum and saliva.

