

# Blood Cortisol, DBS

Self-Collection Capillary Blood Microsample Method.

## Performance Characteristics

### ● Within-Run Precision

Within-run precision was determined by testing microsamples containing two concentrations of Cortisol. Each of the microsamples was tested ten times:

Cortisol ( µg/dL )	Standard Deviation	Coefficient of Variation (%)
3.90	0.02	0.6
25.5	0.68	2.7

### ● Clinical Sensitivity and Specificity

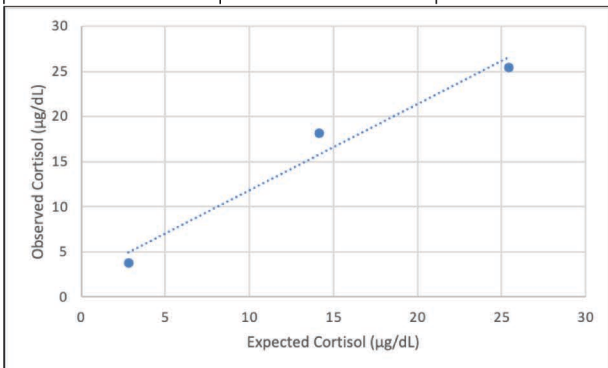
Clinical sensitivity and specificity were determined by testing paired venous samples and capillary blood microsamples from 34 donors and the results evaluated at a cut-off value of 23 µg/dL:

N=34	Capillary Cortisol ≥ 23 µg/dL	Capillary Cortisol < 23 µg/dL
Venous Cortisol ≥ 23 µg/dL	3	0
Venous Cortisol < 23 µg/dL	0	31

### ● Linearity

Capillary blood samples containing different levels of Cortisol, expanding throughout the reportable range, were selected and the assay was performed in triplicate:

Observed Cortisol (µg/dL)	Expected Cortisol (µg/dL)	Recovery (%)
3.8	3.0	97.4
18.1	15.0	120.7
25.4	25.5	99.6



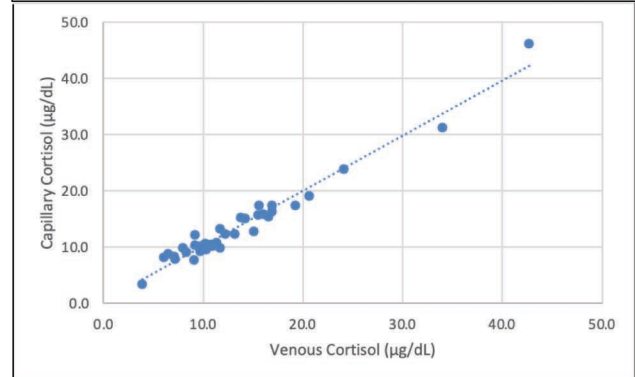
### ● Microsample Stability

Dried blood microsamples are stable for two weeks when stored at ambient temperature during regular shipping and handling conditions.

### ● Accuracy

Paired venous samples, and capillary blood microsamples containing varying concentrations of Cortisol, were tested. Cortisol concentrations observed for the dried blood microsamples versus venous (enhanced chemiluminescence method) were statistically analyzed by simple regression.

N=34		
Correlation Coefficient	0.9600	
Slope	0.9700	
Intercept	0.5100	
	Microsample	Comparable Standard Method
Mean Value of Cortisol	13.6	13.8
Standard Deviation of Range	7.6	7.6



### ● Sample Requirements

The Cortisol dried blood microsample test requires capillary blood placed into a Microcollection device. The device is then placed in the return box and mailed to the laboratory for analysis.

### ● Convenience and Simplicity

Simple stepwise instructions are provided to health awareness participants for collection of a Microsample using a finger lancet:

1. The collection kit is provided
2. Participant deposits 5 blood drops into transport device
3. The Microsample is mailed to the laboratory

### ● Interpretation

The Cortisol test is typically used in the evaluation of mild hormone elevations (pseudo-Cushing states) associated with common health problems such as obesity, high blood sugar, and high blood pressure.