



LAB UPDATE

BIOTIN INTERFERENCE-NEW CHEMISTRY INSTRUMENTATION **WITH ADDITIONAL INFORMATION AND REFERENCES**

EFFECTIVE DATE: MARCH 19, 2019

Mid America Clinical Laboratories is implementing new chemistry instrumentation across our network. With this change, a number of tests have the potential to be affected by Biotin interference **when performed within the Hospital Based Laboratory**.

Healthcare providers are encouraged to talk with their patients regarding the use of biotin supplements and the potential interference that may affect accurate lab results.

It is recommended that supplements be suspended 24 hours prior to collection to minimize the potential of interference. However, those patients that receive biotin therapy intravenously can experience interference for longer periods of time depending on the dose and metabolism of the patient.

The following is a list of tests that are known to demonstrate at least a 10% bias due to biotin interference. Information regarding the biotin interference is included in the MACL Directory of Service order information.

Test Name	Biotin Concentration	Bias Observed Abs.	Bias Observed (%)
CKMB	30 ng/mL	-0.674 to -6.10	Negative (14-16%)
FSH	8 ng/mL	-0.51 to -4.2	Negative (10%)
B-hCG	18 ng/mL	-0.599 to -5.025	Negative (10-12 %)
LH	8 ng/mL	-0.638 to -6.77	Negative (10%)
PROGESTERONE	30 ng/mL	0.291 to 0.894	POSITIVE (1.5-10%)
TROPININ-I	4 ng/mL	-0.011 to -0.588	Negative (12-14%)
TSH	5-8 ng/mL	-0.060 to -1.77	Negative (17-23%)
ESTRADIOL	30 ng/mL	9.53 to 16.89	POSITIVE (4-23%)

Follow the links below to find helpful educational materials and fact sheets:

<http://ods.od.nih.gov/factsheets/Biotin-HealthProfessional/>

<http://labtestsonline.org/articles/biotin-affects-some-blood-test-results>

<http://clinchem.aaccjnl.org/content/63/2/619>

Diagnostics, O. C. (2018), Technical Bulletin Biotl, Interference Data, Rochester: Ortho Clinical Diagnostics

Diagnostics, O.C. (2018), Technical Bulletin – Correction to IFU Interferent Data. Rochester: Ortho Clinical Diagnostics.

If you have any questions, please contact:

Becky Brtva, Chemistry Manager, Mid America Clinical Laboratories – (317) 803-0101

Dr. Terence Cudahy, M.D., Medical Director, Mid America Clinical Laboratories – (317) 803-0253