



 **WVU**Medicine

**UNIVERSITY HEALTHCARE**

**LAB ALERT**

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**Test Name: Free T4**

Biotin supplements may interfere with free T4 assay

Beckman Coulter has determined that high levels of biotin may interfere with the biotin-streptavidin assay design for free T4. Other assays performed at BMC and JMC are unaffected.

Serum samples may contain higher biotin levels than is typical of a healthy population when a patient undergoes biotin therapy and/or ingests supplements with high levels of biotin.

The free T4 result in patients taking biotin supplementation may be **falsely elevated**.

If thyroid testing is to be performed, question patients on biotin use. Biotin may be ingested as a labeled biotin supplement or may be found more subtly in combination supplements for skin, hair and nails, or in some multivitamin products. Discontinuation of biotin-containing supplements for 48 hours prior to phlebotomy should eliminate the interference.

At this time all elevated free T4 results will be reported with the following comment: "Excess biotin is an interfering substance for this assay and may result in falsely elevated free T4 results. It is recommended that patients discontinue biotin-containing supplements at least 48 hours prior to thyroid function testing."

\*If you have any questions call BMC at 304-264-1212, option # 7 or JMC at 304-728-1759.

Effective Date: May 30, 2017