



NMS Labs

CONFIDENTIAL

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Demo Report

Report Issued 04/03/2020 11:22

Patient Name 0939B-POS
Patient ID 0939B-POS
Chain 20000749
Age Not Given **DOB** Not Given
Gender Not Given
Workorder 20000749

To: 88888
Forensic Example Report
Attn: Example Reports
200 Welsh Road
Horsham, PA 19044

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Positive Findings:

| <u>Compound</u> | <u>Result</u> | <u>Units</u> | <u>Matrix Source</u> |
|-----------------|---------------|--------------|----------------------|
| Calcium | 5.0 | mg/dL | 001 - Blood |

See Detailed Findings section for additional information

Testing Requested:

| <u>Analysis Code</u> | <u>Description</u> |
|----------------------|---|
| 0939B | Calcium - Total, Postmortem, Blood (Forensic) |

Specimens Received:

| <u>ID</u> | <u>Tube/Container</u> | <u>Volume/ Mass</u> | <u>Collection Date/Time</u> | <u>Matrix Source</u> | <u>Miscellaneous Information</u> |
|-----------|-----------------------|-------------------------|---------------------------------|----------------------|--------------------------------------|
| 001 | Clear vial | Not Given | Not Given | Blood | |

All sample volumes/weights are approximations.

Specimens received on 03/31/2020.



Detailed Findings:

| Analysis and Comments | Result | Units | Rpt. Limit | Specimen Source | Analysis By |
|-----------------------|--------|-------|------------|-----------------|-------------|
| Calcium | 5.0 | mg/dL | 0.50 | 001 - Blood | ICP/OES |

Other than the above findings, examination of the specimen(s) submitted did not reveal any positive findings of toxicological significance by procedures outlined in the accompanying Analysis Summary.

Reference Comments:

1. Calcium - Blood:

Calcium is a major constituent of the human body, accounting for approximately 2% of the body's mass, mostly in the bones and teeth. Small quantities can also be found dispersed throughout the body, and is required for vital tissue functions such as blood clotting, chemical secretion of hormones, and the contraction and relaxation of cardiac and skeletal muscle.

Calcium is primarily obtained through dietary sources. Insufficient calcium intake and/or absorption and metabolism can lead to diseases such as osteoporosis and/or osteomalacia. Both too much (hypercalcemia) and too little (hypocalcemia) can lead to severe pathologies.

A blood calcium test cannot be used to detect poor calcium intake or the loss of calcium from the bones (osteoporosis). Blood calcium levels are usually kept within normal limits even when a person's diet does not contain enough calcium. Calcium is removed from the bones to keep blood levels normal because calcium is important to brain, muscle, heart, and nerve function. Other tests, such as bone densitometry, measure the amount of calcium in the bones.

Approximately 40 - 50% of the calcium in the serum is bound to proteins, primarily albumin, and the remaining calcium is unbound. The unbound portion of calcium in blood is described as 'free calcium' or ionized calcium. Total serum calcium assays measure both the unbound and bound portions of calcium.

Blood levels of calcium are highly dependent on pre- and post-collection variables as well as the testing laboratory. Disparate concentrations ranging from 3 - 10 mg/dL have been reported as normal.

Analysis Summary and Reporting Limits:

All of the following tests were performed for this case. For each test, the compounds listed were included in the scope. The Reporting Limit listed for each compound represents the lowest concentration of the compound that will be reported as being positive. If the compound is listed as None Detected, it is not present above the Reporting Limit. Please refer to the Positive Findings section of the report for those compounds that were identified as being present.

Acode 0939B - Calcium - Total, Postmortem, Blood (Forensic)

-Analysis by Inductively Coupled Plasma/Optical Emission Spectrometry (ICP/OES) for:

| Compound | Rpt. Limit | Compound | Rpt. Limit |
|----------|------------|----------|------------|
| Calcium | 0.50 mg/dL | | |

Specimens for elemental testing should be collected in certified metal-free containers. Elevated results for elemental testing may be caused by environmental contamination at the time of specimen collection and should be interpreted accordingly. It is recommended that unexpected elevated results be verified by testing another specimen.