
Lab Dept: Chemistry

Test Name: CALCIUM

General Information

Lab Order Codes: CA

Synonyms: Ca

CPT Codes: 82310 – Calcium; total

Test Includes: Calcium concentration reported in mg/dL.

Logistics

Test Indications: Calcium is the fifth most common element and the most prevalent cation found in the body. Calcium exists in 3 physiochemical states in plasma; free/ionized, bound, and complexed with small anions. Calcium testing is used for assessment and treatment of parathyroid disease, a variety of bone diseases and chronic renal disease.

Lab Testing Sections: Chemistry

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 1 hour

Special Instructions: N/A

Specimen

Specimen Type: Blood

Container: **Preferred:** Green top (Li Heparin) tube
Alternate: Red, marble, or gold top tube or Green (NaHep) tube

Draw Volume: 0.6 mL blood

Processed Volume: 0.2 mL plasma/serum

Collection: Routine venipuncture

Special Processing: Lab Staff: Centrifuge specimen, remove plasma/serum aliquot into plastic sample cup. Analyze sample immediately or store at 2-8 degrees Centigrade for up to 3 weeks.

Patient Preparation: None

Sample Rejection: Mislabeled or unlabeled specimen

Interpretive

| | | |
|-------------------------|------------------------------------|-----------------------|
| Reference Range: | Age: | Range (mg/dL): |
| | Reference ranges by Method: | |
| | Method Abbott | |
| | Premature newborns: | 6.2 – 11.0 mg/dL |
| | 0 – 10 days: | 7.6 – 10.4 mg/dL |
| | 10 days – 24 months: | 9.0 – 11.0 mg/dL |
| | 2 – 12 years: | 8.8 – 10.8 mg/dL |
| | 12 – 60 years: | 8.4 – 10.2 mg/dL |
| | >60 years: | 8.8 – 10.0 mg/dL |

Critical Values: <6.0 or >14.0 mg/dL

Limitations: N/A

Methodology: ABBOTT: Arsenazo III

References: Biorad Liquichek Unassayed Chemistry Control Product Insert, Bio-Rad Laboratories, Irvine, CA 92618

Architect Calcium Pkg Insert, Abbott Laboratories Diagnostic Division, Abbott Park, IL 60064, January 2016

Alinity Calcium Pkg Insert, Abbott Laboratories Diagnostics Division, Abbott Park, IL 60064, February 2018

CALIPER pediatric reference range database (2019) Retrieved October 3, 2019 from <https://caliper.research.sidkkids.ca/#/>

Jacobs & DeMott Laboratory Test Handbook (2001) Lexi-Comp, Inc, Hudson, OH, 5th Edition

Updates:

7/14/2014: Method change from Dimension to Dimension Vista.

2/8/2016: Update alt tube types

10/18/2019: New backup instrumentation and related reference ranges

11/9/2020: Retired method VISTA, updated for Alinity, container