
Lab Dept: Chemistry

Test Name: PHOSPHORUS

General Information

Lab Order Codes: PO4
Note: Also included in Renal Panel (RENP)

Synonyms: PO4; Phosphate

CPT Codes: 84100 – Phosphorus inorganic (phosphate)

Test Includes: Phosphorus concentration is reported in mg/dL.

Logistics

Test Indications: Useful for the evaluation of phosphorus metabolism and calcium/phosphorus balance. Phosphorus in the form of inorganic phosphate is important and widely distributed in the human body, 85% skeletal. Serum phosphorus concentrations are diet dependent.

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: Whole blood

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

Draw Volume: 0.6 mL blood

Processed Volume: 0.2 mL serum/plasma

Collection: Routine blood collection. Mix tubes containing anticoagulant by gentle inversion.

Special Processing: Lab Staff: Centrifuge specimen, remove serum/plasma aliquot and transfer into a plastic sample cup. Store at refrigerated temperatures for up to 48 hours.

Patient Preparation: Preferable, the patient should be fasting. Phosphorus levels fluctuate following meals.

Sample Rejection: Mislabeled or unlabeled specimen

Interpretive

Reference Range:

Reference ranges by Method:	
Method Abbott	
0 – 14 days:	5.6 – 10.5 mg/dL
15 – 364 days:	4.8 – 8.4 mg/dL
1 – 4 years:	4.3 – 6.8 mg/dL
5 – 12 years:	4.1 – 5.9 mg/dL
13 – 15 years female:	3.2 – 5.5 mg/dL
13 – 15 years male:	3.5 – 6.2 mg/dL
16 – 18 years:	2.9 – 5.0 mg/dL
Adult:	2.3 – 4.7 mg/dL

Critical Values: <2.0 or >10.0 mg/dL

Limitations: Phosphorus concentrations may be increased by excess hemolysis or decreased by excess lipids.

Methodology: Phosphomolybdate

References: Architect Phosphorous Pkg Insert, Abbott Laboratories Diagnostics Division, Abbott Park, IL 60064, USA. January 2016

Architect Multiconstituent Calibrator Package Insert, Abbott Laboratories Diagnostics Division, Abbott Park, IL, 60064, USA. August 2017

Alinity Phosphorous Pkg Insert, Abbott Laboratories Diagnostics Division, Abbott Park, IL 60064, USA. December 2017

Alinity c Multiconstituent Calibrator Package Insert, Abbott Laboratories
Diagnostics Division, Abbott Park. IL, 60064, USA. December 2017

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

Bio-Rad Liquid Assayed Multiqual Unassayed Chemistry Control
Product Insert Bio-Rad Laboratories, Irvine, CA 92618

Bio-Rad Liquichek Urine Chemistry Control Product Insert, Bio-Rad
Laboratories, Irvine, CA 92618

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

Updates:

7/21/2015: Vista update

2/9/2016: Update alt tube type

7/6/2016: Updated reference ranges

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

11/24/2020: Updated for method Abbott Alinity, removed method
Siemens Vista