



Pathology and Laboratory Medicine

PHOSPHATE PLASMA

Orderable - PHO

Turn Around Time: 4 hours STAT: 1 hour

Alternate Name(s):

Inorganic Phosphate
Inorganic Phosphorus, PO4



Laboratory: Core Lab



Requisition: GENERAL LABORATORY REQUISITION



Method of Analysis: Endpoint photometric, Ammonium Molybdate



Test Schedule:

As required

Specimen:

Adult	Pediatric
4.5 mL Green top	0-2 years: 0.5 mL Green top
Vacutainer tube	Microtainer
	2-10 years: 3 mL Green top tube

Collection Information:

Collect blood aseptically in a Vacutainer tube.

Fasting sample preferred because levels tend to fall post prandially.

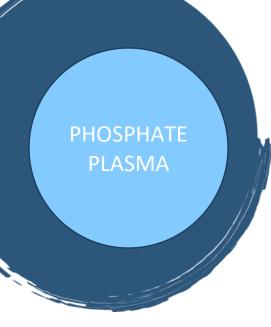
The minimum volume required for pediatric samples is 0.2 mL.

Reference Ranges:

Age	Range
< 1 year	01.30-2.60 mmol/L
1 year - 4 years	1.16-2.10 mmol/L
4 years - 14 years	1.10-1.90 mmol/L
> 14 years	0.80-1.33 mmol/L

Interpretive Comments:

Useful in the diagnosis and management of a variety of disorders including bone, parathyroid and renal disease. Phosphate levels alone are of limited diagnostic value and should be correlated with serum calcium levels.







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Serum phosphate concentrations are dependent on meals and hormone regulation (PTH, vitamin D).

Common causes of hypophosphatemia are: shift of phosphate from extracellular to intracellular, renal phosphate wasting, loss from the gastrointestinal tract, and loss from intracellular stores.

Hyperphosphatemia occurs in renal failure secondary to an inability of the kidneys to excrete phosphate. Other factors may relate to increased phosphate or viatmin D intake.

Comments:

Hemolysis may affect results.

In very rare cases gammopathy, in particular type IgM (Waldenstrom's macroblobulinemia) may cause unreliable results.