
Lab Dept: Chemistry

Test Name: OSMOLALITY

General Information

Lab Order Codes: OSM

Synonyms: Osmo

CPT Codes: 83930 – Osmolality; blood

Test Includes: Osmolality concentration reported in mOsm/kg.

Logistics

Test Indications: Determination of osmolality can be useful in the assessment of electrolyte and acid/base disorders. Comparisons can determine the status of renal water regulation settings of severe electrolyte disturbances, as might occur in diabetes insipidus.

Lab Testing Sections: Chemistry

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 4 hours

Special Instructions: N/A

Specimen

Specimen Type: Blood

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

Draw Volume: 0.6 mL blood

Processed Volume: 0.2 mL plasma/serum

Special Processing: Lab Staff: Centrifuge specimen, remove serum/plasma aliquot into plastic sample cup. Run within 4 hours or store at refrigerated temperatures.

Patient Preparation: None

Sample Rejection: Mislabeled or unlabeled specimen

Interpretive

Reference Range: 275 - 295 mOsm/kg

Critical Values: N/A

Limitations: N/A

Methodology: Freezing point depression

References: Advanced Instruments Osmometer Model 2020 Osmo1 User's Guide, 2025 Rev16, 081508, Two Technology Way, Norwood, MA 02062

Tietz Textbook of Clinical Chemistry and Molecular Diagnostics (2006)
Elsevier Saunders Company, pp 991 - 994

Jacobs & DeMott Laboratory Test Handbook Lexi-Comp, Inc (2001)
Hudson, OH, 5th Edition, pp 236-237

Updates: 2/9/2016: Update alt tube type