

Osmolality (urine)

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| Description | A measure of urine tonicity /concentration |
| Indication | Urine osmolality is a measure of the concentrating ability of the kidneys. The osmolality of urine is used to estimate the fluid balance status of the body, particularly in the presence of hyponatraemia. It is also required to diagnose diabetes insipidus, usually as part of a water deprivation test. |
| Additional Info | <p>Primary polydipsia can cause a low urine osmolality and should be considered as a cause particularly in psychiatric patients. Primary polydipsia will be associated with a dilutional hyponatraemia. With primary polydipsia urine may remain dilute even with fluid restriction but serum osmolality is often low or low to normal. A prolonged water deprivation test may be required.</p> <p>It is particularly important to note the time of collection and/or time since water restriction started for samples taken as part of a water deprivation test.</p> |
| Concurrent Tests | Plasma osmolality |
| Dietary Requirements | N/A |
| Interpretation | Interpretation requires a paired plasma and urine osmolality measurement and a corresponding set of electrolytes. It is also helpful to know the hydration status of the patient. |
| Collection Conditions | It is particularly important to note the time of collection and/or time since water restriction started for samples taken as part of a water deprivation test. |