

<h2>Sodium (Urine)</h2>	
<b>Description</b>	Major extracellular cation. Measured as part of urine U&E profile.
<b>Indication</b>	Assessment of electrolyte and fluid balance
<b>Additional Info</b>	Sodium and water balance are closely linked in order to maintain normal plasma osmolality and volume. Regulation is primarily by renal reabsorption of sodium and water via aldosterone and ADH respectively. Assessment of sodium and water balance requires interpretation of urine sodium in combination with urine osmolality, serum sodium, serum osmolality and clinical evaluation of hydration status.
<b>Concurrent Tests</b>	Serum sodium and osmolality and urine osmolality.
<b>Dietary Requirements</b>	N/A
<b>Interpretation</b>	<p>Interpretation of urine sodium should be made in combination with the serum sodium and the patient's hydration status. Normal daily urinary excretion of sodium is dependent on sodium intake and extra-renal sodium losses. It is essential to obtain a urine sample as early as possible in the patient's work-up as interpretation can be seriously confounded if the sample is collected following intravenous infusion of saline.</p> <p>In hypovolaemia, the normal renal response is maximal sodium reabsorption via the renin-angiotensin-aldosterone system, conserving sodium and water and thereby restoring the ECF volume. The urine sodium concentration should therefore be maximally dilute (e.g. &lt;10 mmol/L). A high random urine sodium (e.g. &gt;30 mmol/L) in the presence of hypovolaemia indicates inappropriate renal loss of sodium and water, e.g. caused by diuretics or mineralocorticoid deficiency. Continued inappropriate renal sodium loss may result in a low urine sodium concentration due to sodium depletion. It is also important to consider extra-renal sodium and water losses, e.g. gastrointestinal, transdermal and pulmonary.</p> <p>High urine sodium excretion is a feature of SIADH (note that the patient must also be normovolaemic with hypo-osmolar hyponatraemia, and must have normal renal and adrenal function in order to make this diagnosis).</p>
<b>Collection Conditions</b>	As early as possible in the patient's work-up (preferably before intravenous infusion of saline)
<b>Frequency of testing</b>	As required