



Thyroid Hormones 24 Hour Urine

Patient Details

Practitioner Details

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Client ID No:
Accession No:
Patients DOB:
Sample Date:
Date Of Report:

Urine Thyroid Hormones			
Analyte	Result	Units	Normal Range

Results & Ranges - Adult

Urine Volume	1800	mL	600 - 2500				
Triiodothyronine (T3)	312 L	pmol/24h	592 - 1850				
<table border="1"> <thead> <tr> <th>Analyte</th> <th>Reference Range (pmol/24h)</th> </tr> </thead> <tbody> <tr> <td>Urine T3</td> <td>592 - 1850</td> </tr> </tbody> </table>		Analyte	Reference Range (pmol/24h)	Urine T3	592 - 1850		
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Urine T3	592 - 1850						
Thyroxine (T4)	202 L	pmol/24h	347 - 1994				
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Urine T4	347 - 1994						
T3 : T4 Ratio	1.5	Ratio	0.50 - 2.00				

Commentary

Free T3 (FT3) is measured to be below the reference range, indicating functional hypothyroidism. FT3 measures the biologically active fraction of total T3, the majority of which is bound by protein carriers in the serum and is therefore inactive. T3 is 3-5 times as physiologically active as T4, and 80% of the circulating T3 is from the peripheral conversion of T4 predominately in the liver and kidney. Low FT3 in conjunction with a low FT4 is indicative of hypothyroidism in which the thyroid gland is simply not producing adequate levels of thyroid hormone. Decreased T3 production has been observed in states of severe calorie restriction, systemic inflammatory conditions, and/or prolonged or severe stress. The enzyme necessary for the conversion of T4 into T3 (5'-deiodinase) is selenium dependent. It can be impaired by a selenium deficiency or by the presence of the heavy metal selenium antagonists such as mercury, cadmium and lead.