

CATECHOLAMINES, 24 HOUR**URINE**

(HPLC)

Epinephrine

 $\mu\text{g}/24 \text{ hrs}$

Norepinephrine

 $\mu\text{g}/24 \text{ hrs}$

Dopamine

 $\mu\text{g}/24 \text{ hrs}$

ANALYTE	AGE IN YEARS	REFERENCE RANGE IN $\mu\text{g}/24 \text{ hrs}$
Epinephrine	0-1	0-2.5
	>1-2	0-3.5
	>2-4	0-6.0
	>4-7	0-10
	>7-10	0-14
	>10-14	0-20
	>14	4-20
Norepinephrine	0-1	0-10
	>1-2	0-17
	>2-4	0-30
	>4-7	0-45
	>7-10	0-65
	>10-14	0-70
	>14	23-105
Dopamine	0-1	0-180
	>1-3	0-240
	>3-9	30-378
	>9-13	51-474

	>13-17	51-645
	>17	62-446

Comment

Catecholamines are important neurotransmitters in Central Nervous System and play a crucial role in autonomic regulation of many homeostatic functions. The circulating fraction of catecholamines is derived almost exclusively from Adrenal medulla with small contribution from sympathetic ganglia. Their levels increase rapidly in response to changes in posture, environmental temperature, physical and emotional stress, hypovolemia, hypotension, hypoglycemia and exercise. Urine catecholamine levels are elevated in Pheochromocytoma and Paraganglioma.

Uses

- As an auxillary test to fractionated plasma and urine metanephrine measurements in the diagnosis of Pheochromocytoma and Paraganglioma
- As an auxillary test to urine VMA & HVA in the diagnosis and follow up of patients with Neuroblastoma and related tumors