TEST CHANGE

Catecholamines Fractionated, Plasma

0080216, CATE PF

Specimen Requirements:	
Patient Preparation:	Patient should be calm and seated for 15 minutes prior to collection. Alternately, patient may be calm and supine for 30 minutes prior to collection. Drugs and medications may affect results and should be discontinued for 72 hours prior to specimen collection, if possible.
Collect:	Green (sodium or lithium heparin), lavender (EDTA). Collect on ice.
Specimen Preparation:	Specimen should be centrifuged and frozen within one hour (refrigerated centrifuge is preferred but not required). Transfer 34 mL plasma to an ARUP standard transport tubeStandard Transport Tube. (Min: 12.1 mL)
Transport Temperature:	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.
Unacceptable Conditions:	SerumEDTA plasma, serum, or urine.
Remarks:	
Stability:	After separation from cells: Ambient: Unacceptable; Refrigerated: Unacceptable; Frozen at -20120 Degrees C: 1 month; Frozen at -70170 Degrees C: 1 year
Methodology:	Quantitative High Performance Liquid Chromatography-Tandem Mass Spectrometry (HPLC)
Performed:	Sun, Tue-Sat
Reported:	1-4 days
Note:	Medications that may interfere with catecholamines and metabolites. include amphetamines and amphetamine-like compounds, alpha-blockers (phenoxybenzamine), beta-blockers (including labetalol), caffeine, calcium channel antagonists, carbidopa, cocaine, ephedrine, levodopa, monoamine oxidase inhibitors, nicotine, pseudoephedrine, theophylline, tricyclic antidepressants, and vasodilators. The effect of drugs on catecholamine results may not be predictable. (N Rifai, ANader,, Andrea R. Horvath, and C. 1955- Wittwer. Tietz Textbook of Clinical Chemistry and Molecular

	Diagnostics. Sixth edition. St. Louis, Missouri: Elsevier, 2018; Table 63.9.) For optimum assessmentresults, patient should be supine for 30 minutes prior to specimen collection. Children, particularly those under 2 years of age, often show an elevated catecholamine response to stress.
CPT Codes:	82384
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Small increases in catecholamines (less than 2 times the upper reference limit) are usually are the result of physiological stimuli, drugs, or improper specimen collection. Significant elevation of one or more catecholamines (2 or more times the upper reference limit) can result from is associated with an increased probability of a neuroendocrine tumor. Measurement of plasma or urine fractionated metanephrines should be used for assessment of suspected pheochromocytoma or paraganglioma.

Lowerprovides better diagnostic sensitivity than measurement of catecholamines.

Higher catecholamine concentrations are observed in specimens collected from supineupright or standing adults.

To convert to picograms per milliliter (pg/mL), multiply the reported concentration for dopamine Epinephrine may be increased by 0.153, epinephrine by 0.163, andapproximately 20 percent; norepinephrine by 0.169

Access complete set of age- and/or gender-specific reference intervals for this test in the ARUP Laboratory Test Directory (aruplab.com).up to 700 pg/mL; dopamine, unchanged.

Supine Reference Intervals	
Dopamine	Less than or equal to 240 pmol/L
Epinephrine	Less than or equal to 265 pmol/L
Norepinephrine	680-3100 pmol/L

Reference Interval:

Test Number	Components	Reference Interval		
	Epinephrine			
		18 years and older ~~Age~~	~~Reference Interval (pg/mL)~~	
		Seated (15 min)~~2-10 days 11 days-3 months 4-11 months 12-23 months 24-35 months 3-17 years 18 years and older~~	Less than or equal to 330 pmol/L~~36-400 55-200 55-440 36-640 18-440 18-460 10-200~~	
	Norepinephrine			
		18 years and older~~Age~~	~~Reference Interval (pg/mL)~~	
		Seated (15 min)~~2-10 days 11 days-3 months 4-11 months 12-23 months 24-35 months 3-17 years 18 years and older~~	1050-4800 pmol/L~~170-1180 370-2080 270-1120 68-1810 170-1470 85-1250 80-520~~	
	Dopamine	~~2 days and older: 0-20 pg/mL~~		
		18 years and older		
		Seated (15 min)	Less than or equal to 240 pmol/L	

Supine

HOTLINE NOTE: There is a unit of measure change associated with this test. Refer to the Hotline Test Mix for interface build information.