



	Make/Change Appointment		Pay Online
---	---	---	----------------------------

METANEPHRINES (Free), PLASMA (METANEPHRINE and NORMETANEPHRINE)

Synonym(s):

[Back To Previous Page \(javascript: history.go\(-1\)\)](#)

Lab Section Category	Clinical Biochemistry Click here to find out more about the write-up (/clinical-departments-centers/pathology/pathology-handbook/lab-discipline-special-instructions/pages/clinical-biochemistry.aspx).
Specimen Required	3mL EDTA blood; keep cold with ice and send to lab immediately recommended collection: draw from fasting patient at supine position after 20-30min of rest
Method	Liquid Chromatography - Tandem Mass Spectrometry (LC-MS/MS)
Reference Interval/Value	all ages: Metanephrine (MET) 0 - 0.33 nmol/L all ages: Normetanephrine (NMET) 0 - 0.71 nmol/L Plasma metanephrine and normetanephrine reference intervals (URL 97.5 th percentile value) are from Eisenhofer et.al 2013 Annals Clin Biochem 50:62-69; above URLs used together demonstrated 93.9% sensitivity and 88.3% specificity. Plasma 3-methoxytyramine measurement assists confirmation of disease and useful for head and neck paragangliomas.
Turnaround Time	average 7 days
Day(s) Test Set up	Wednesday

Remarks	<p>Studies have suggested that age-specific / age-group specific reference intervals for plasma normetanephrine used in conjunction with metanephrine improved specificity and sensitivity for the diagnosis of pheochromocytoma. A curvilinear algorithm equation to calculate age-specific reference intervals for plasma normetanephrines was derived by Eisenhofer et.al (2013).</p> <p>Age-group specific reference intervals (using the first age of each group) obtained from the curvilinear algorithm is reproduced here. Used together with plasma metanephrine URL of 0.45 nmol/L has demonstrated 93.6% sensitivity and 96% specificity</p> <table data-bbox="768 475 1137 802"><tr><td>5-17yr:</td><td>0.54 nmol/L</td></tr><tr><td>18-29yr:</td><td>0.55 nmol/L</td></tr><tr><td>30-39yr:</td><td>0.60 nmol/L</td></tr><tr><td>40-49yr:</td><td>0.67 nmol/L</td></tr><tr><td>50-59yr:</td><td>0.80 nmol/L</td></tr><tr><td>>60yr:</td><td>0.99 nmol/L</td></tr></table> <p>Rao et.al 2017 Eur J Endocrinol 177:103-113 using LC-MS/MS in their study verified the use of age-specific reference intervals (NMET) in diagnosis. Additionally, the use of methoxytyramine (MTY) assists with positive confirmation.</p> <p>Interferences</p> <p>Subjects should abstain from caffeine, acetoaminophen, before testing. The following drugs: (on MET, NMET, MTY) isoproterenol, ephedrine, (on MTY) metamphetamine also interferes with the analysis technique.</p>	5-17yr:	0.54 nmol/L	18-29yr:	0.55 nmol/L	30-39yr:	0.60 nmol/L	40-49yr:	0.67 nmol/L	50-59yr:	0.80 nmol/L	>60yr:	0.99 nmol/L
5-17yr:	0.54 nmol/L												
18-29yr:	0.55 nmol/L												
30-39yr:	0.60 nmol/L												
40-49yr:	0.67 nmol/L												
50-59yr:	0.80 nmol/L												
>60yr:	0.99 nmol/L												

[Back To Previous Page \(javascript: history.go\(-1\)\)](#)

©Copyright 2018 Singapore General Hospital, Outram Road, Singapore 169608