



<u>Procedure</u>	<u>Result</u>	<u>Units</u>	<u>Ref Interval</u>	<u>Accession</u>	<u>Collected</u>	<u>Received</u>	<u>Reported/</u> <u>Verified</u>
Phenytoin - Free Level	2.4	ug/mL	[1.0-2.5]	19-070-900130	11-Mar-19 14:52:00	11-Mar-19 14:52:00	11-Mar-19 14:56:40
Phenytoin - Total	21.6 H	ug/mL	[10.0-20.0]	19-070-900130	11-Mar-19 14:52:00	11-Mar-19 14:52:00	11-Mar-19 14:56:40
Phenytoin - Percent Free	11.1	%	[8.0-14.0]	19-070-900130	11-Mar-19 14:52:00	11-Mar-19 14:52:00	11-Mar-19 14:56:40

11-Mar-19 14:52:00 Phenytoin - Percent Free:
 INTERPRETIVE INFORMATION: Phenytoin, Free And Total

Phenytoin - Total
 Therapeutic: 10.0-20.0 ug/mL

Toxic: Greater than 30.0 ug/mL

Phenytoin - Free Level
 Therapeutic: 1.0-2.5 ug/mL

Toxic: Greater than 2.5 ug/mL

Phenytoin - Percent Free
 8.0-14.0%

The therapeutic range is based on serum pre-dose (trough) draw at steady-state concentration. Free phenytoin may be important to monitor in patients with altered or unpredictable protein binding capacity because phenytoin is highly bound (greater than 90 percent) at therapeutic concentrations. Phenytoin is also subject to drug-drug interactions due to displacement of protein binding and extensive metabolism. Cross-reactivity with metabolites may account for differences in phenytoin concentrations among analytical methods. Calculating percent free attempts to minimize differences in assay cross-reactivity and may be useful in dose optimization.

Test developed and characteristics determined by ARUP Laboratories. See Compliance Statement B: aruplab.com/CS

* Abnormal, # = Corrected, C = Critical, f = Footnote, H = High, L = Low, t = Interpretive Text, @ = Reference Lab