

Patient: [REDACTED]
 DOB: [REDACTED] Age: [REDACTED] Sex: [REDACTED]
 Patient Identifiers: [REDACTED]
 Visit Number (FIN): [REDACTED]

Client: [REDACTED]
 Physician: [REDACTED]

ARUP Test Code: 3002598
 Collection Date: 10/04/2023
 Received in lab: 10/05/2023
 Completion Date: 10/06/2023

Patient History *

<u>Collection Date</u>	<u>PEth 16:0/18:1 (POPEth)</u>	<u>PEth 16:0/18:2 (PLPEth)</u>	<u>Accession Number</u>
10/04/2023	<10	<10	23-277-115986
09/19/2023	<10	<10	23-262-133185
09/07/2023	14	<10	23-250-117254
08/23/2023	74	17	23-235-113237
08/05/2021	467	228	21-217-101284
07/01/2022	931	709	22-182-114985
04/20/2022	1116	704	22-110-100758

*Up to the past 7 consecutive test results are displayed on this chart; however, this result set may be incomplete due to variations in the demographic information submitted for prior tests. If the information on this chart appears incomplete, please consult this patient's prior charts.

Detected results are highlighted above in red.

Interpretive Comments

INTERPRETIVE INFORMATION: Phosphatidylethanol (PEth), Whole Blood
 Phosphatidylethanol (PEth) homologues Result Interpretation

PEth 16:0/18:1 (POPEth)

- Less than 10 ng/mL.....Not detected
- Less than 20 ng/mL.....Abstinence or light alcohol consumption
- 20 - 200 ng/mL.....Moderate alcohol consumption
- Greater than 200 ng/mL.....Heavy alcohol consumption or chronic alcohol use

PEth 16:0/18:2 (PLPEth).....Reference ranges are not well established.
 (Reference: W. Ulwelling and K Smith 2018 J. Forensic Sci)

Phosphatidylethanol (PEth) is a group of phospholipids formed in the presence of ethanol, phospholipase D and phosphatidylcholine. PEth is known to be a direct alcohol biomarker. The predominant PEth homologues are PEth 16:0/18:1 (POPEth) and PEth 16:0/18:2 (PLPEth), which account for 37-46% and 26-28% of the total PEth homologues, respectively. PEth is incorporated into the phospholipid membrane of red blood cells and has a general half-life of 4-10 days and a window of detection of 2-4 weeks. However, the window of detection is longer in individuals who chronically or excessively consume



Patient: [REDACTED]
 ARUP Accession: 23-277-115986

Phosphatidylethanol (PEth), Whole Blood, Quantitative

Patient: [REDACTED] | Date of Birth: [REDACTED] | Sex: [REDACTED] | Physician: [REDACTED]
Patient Identifiers: [REDACTED] | Visit Number (FIN): [REDACTED]

alcohol. The limit of quantification is 10 ng/mL. Serial monitoring of PEth may be helpful in monitoring alcohol abstinence over time. PEth results should be interpreted in the context of the patient's clinical and behavioral history. Patients with advanced liver disease may have falsely elevated PEth concentrations (Nguyen VL et al 2018, Alcoholism Clinical and Experimental Research).

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the U.S. Food and Drug Administration. This test was performed in a CLIA-certified laboratory and is intended for clinical purposes.



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