Phosphohydryl ethanol (PEth) is an abnormal phosphohydryl formed in cell tissues following alcohol exposure. PEth in blood exists as a component of the red cell membrane. PEth is a real to long-term alcohol biomarker measurable after engaging in risky alcohol drinking behavior. A positive result is an indication of binge alcohol drinking during the 2-3 weeks prior to the collection of the blood or blood spot.

While ethyl glucuronide (EtG) is a sensitive and valuable assay for those individuals in treatment programs for alcohol abuse, recent studies have indicated that low level positive EtG results can be produced by certain agents like hand sanitizers and mouth wash. The PEThStat assay helps to discriminate between incidental exposure and intentional alcohol ingestion. The volume of alcohol required to trigger a positive PEth result is far above the level commonly attained by incidental exposure. Sample amount is 5 dried blood spots on USSTL provided filter paper when collecting from fingers or 5 milliliters of blood if using standard venipuncture collection. Results are available 4-7 days after the sample is received in the laboratory.

BloodSpot® Collection

Collection is as easy as:


BloodSpot collection is quickly becoming the fastest, most convenient way to test for PEth. USSTL provides the blood spot collection kits, which include 2 lancets, 2 alcohol prep pads, gauze, and the blood spot collection card. They also provide the requisition form for the collection which includes all necessary bar code stickies to maintain a proper chain-of-custody.

Unlike venipuncture, BloodSpot collection is performed by the individual being tested [the donor] and can be observed by any staff member, after a short training session.