

Guide to Sample Collections

On Arrival

Before any sample collection can take place, we have to be able to identify the donor. Our Collection Technician will need to see some identification to ensure we are collecting the sample from the correct person. We understand that some donors may not possess photographic identification, as such their identification can be verified by a solicitor, social worker or the witness present. The identity of a child/children should be verified by the person/party who has parental responsibility.

Chain of Custody Procedure

All samples are collected under strict chain of custody procedures to ensure the result is legally defensible for use in court. With a strict chain of custody procedure in place, we ensure integrity of samples from the time of collection. This means donors will be required to provide a signature, thus consenting to the sample analysis and will be asked for a photograph to be taken at the time of the sample collection.

Declaring Medication

It's helpful to prepare a list of any medication the donor is taking so that these can be declared at the time of the sample collection. This ensures that any prescribed medication is taken into consideration when interpreting the analysis results and is included in the Expert Report.



Hair Sample Collection

Prior to the collection

It's important to ensure that there are no hair products left on the hair such as hair gel, hairspray, oils etc. as it makes it easier for the Collection Technician to obtain a sample with minimum discomfort. If hair extensions are worn, they will need to be removed prior to the sample collection.

Collection

If a head hair sample is taken, our Collection Technician will section the hair and cut two samples of hair near to the scalp. Usually, our Collection Technician will take approximately a pencil width of hair, however there are cases where more hair may be needed as the weight and texture of hair varies from one individual to another. If the hair is being tested for Spice, psychoactive substances or steroids, then more samples need to be collected. In cases involving body hair, the sample sites will vary depending on what we are testing.

If there is little or no head hair, our Collection Technician can take a body hair sample. For alcohol analysis a sample can be taken from the chest or the leg/forearm. For drug analysis hair can be taken from the underarm, chest, legs or arms.



Blood Sample Collection

It's important to note that we offer three types of blood test. These are a Liver Function Test, known as LFT, Carbohydrate Deficient Transferrin known as CDT and Phosphatidylethanol known as PEth.

An **LF blood test** measures the enzymes and proteins that are produced by or are involved in liver function to assess whether levels of any of these are abnormal. The liver function test provides an indication of the health of the liver at the time of the sample collection. Whilst it cannot be used to determine the amount of alcohol consumed by an individual, certain markers, if raised, can be used to indicate the possibility of excessive alcohol consumption.

A **CDT blood test** is used to help detect excessive ethanol (alcohol) consumption. The exact period of time of alcohol consumption covered by the CDT test cannot be determined however to obtain a positive CDT result an increase in alcohol intake for longer than 2 – 4 weeks prior to the test is required.

A **PEth blood test** is used to create a picture of alcohol use. PEth is a direct alcohol biomarker found in red blood cell membranes following alcohol consumption. Because PEth is a direct biomarker of alcohol and requires ethanol for its production, it is a highly reliable blood test for alcohol use. PEth has also proven its reliability as it is not affected by medication or health problems. Blood concentrations of PEth are highly correlated to alcohol intake and has a high diagnostic sensitivity. A blood test for PEth provides a detection period of up to 4 weeks prior to collection.

Prior to the Collection

Prior to a blood sample collection, it is recommended that the donor drinks plenty of water. Drinking water before a blood test makes it easier to extract a sample, so more comfortable for the donor.

Collection

The Collection technician will take a quick blood sample using a small needle attached to a syringe, which is inserted into the vein and then used to draw out a sample of blood. There may be a small feeling of pricking or scratching as the needle goes in, but it shouldn't be painful.



DNA Sample Collection

Prior to the Collection

We recommend that the donor does not eat, drink, smoke or chew gum for 30 minutes prior to giving a DNA sample.

Collection

In order to obtain an oral fluid sample for a DNA test the Collection Technician will need to take a swab of the inside of the cheeks, near the back teeth.