



Testing for Alcohol Consumption

Understanding which test to use when



**Cansford
Laboratories**
Pioneering drug and alcohol testing

www.cansfordlabs.co.uk

+44 (0)29 2054 0567

info@cansfordlabs.co.uk

Introduction

The decisions that are made as a result of a test for alcohol consumption can be life changing for individuals and their families. That's why we are continually improving our testing processes, to provide clarity where its most needed.

These are some of benefits of instructing Cansford for alcohol consumption testing:



- Accredited to **UKAS ISO17025: 2017**.
- **3-day turnaround** for all tests.
- Cansford is the **only lab to offer segmented hair testing**, ideal for the monitoring of alcohol consumption over time.
- Our collectors only need take about a **shoelace worth of hair**, (no bald patch).
- Cansford is the **only UK lab** to be able to test hair to a level recommended by the Society of Hair Testing's as appropriate to measure alcohol abstinence.
- Our PEth testing for alcohol requires only **a few drops of blood** in the form of 'dry blood spots'. It can be selected with EtG - providing more **immediate and precise information** about recent alcohol use.

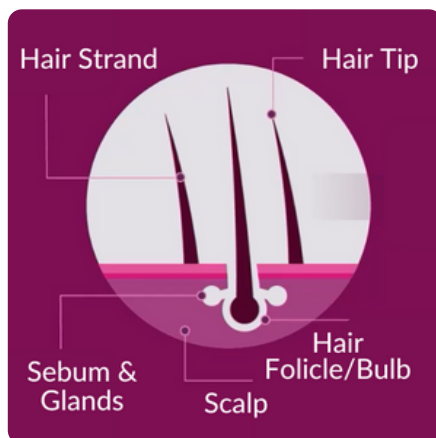


Hair Testing

A hair alcohol test looks for the EtG (Ethyl Glucuronide) and FAEE (Fatty Acid Ethyl Esters) markers in hair, in order to measure levels of long-term alcohol use (more than one week and up to six months).

EtG and FAEEs are both direct biomarkers of alcohol consumption, they will only be produced if the individual has consumed enough alcohol to be absorbed into the hair.

Both are widely used for monitoring alcohol consumption for both clinical and forensic purposes.



An EtG test alone can be enough to accurately measure long term alcohol consumption levels. At Cansford, we can measure EtG in hair to indicate abstinence or excessive alcohol consumption.

However, because of the different effects of some cosmetic hair treatments, such as bleaching on EtG levels in hair, there is a consensus that FAEE measurements in hair are useful in combination with EtG.

FAEEs are formed because of reactions between the ethanol in alcoholic drinks and fatty acids in the body – they are absorbed into the hair through sebum made in the sebaceous glands at the base of hair roots.

Overview or segmented hair testing. What are the benefits?

Overview hair testing for alcohol can provide a general indication of drug or alcohol use throughout a defined testing period, depending on the length of hair selected. An overview analysis will cover a whole section and identify alcohol use within that period.

For instance, a 3cm overview can provide an integrated average result of use over the entire three-month period but will not specify trends of use within that time.

They also add that ‘segmentation could be particularly beneficial where someone has drastically decreased their alcohol consumption or is trying to prove abstinence’.

Some labs say that the practice of segmenting hair samples to analyse alcohol consumption is against Society of Hair Testing guidelines.

Cansford have studied the results of over 3,000 samples which were segmented into 3 by 1cm sections.

But SoHT guidelines state that segmentation for alcohol analysis may provide additional information.

We found that segmentation was valuable and pertinent in cases where people – like your clients - needed to show they’d consistently cut down alcohol use over the period.

Hair strand test

A hair strand test is one of the most accurate laboratory tests for drugs and alcohol – and is almost impossible to cheat. The method can be used to detect virtually all drug and alcohol substances, between seven days and six months after their use.

Case Study - A claim of decreased consumption

A family law case involving a client who required a test to show levels of decreased alcohol consumption.

Our client had a 3cm section of hair taken for overview analysis, and a chronic excessive level of use was reported. The Solicitor representing the person reported their client had claimed decreased levels of alcohol consumption over the recent period.

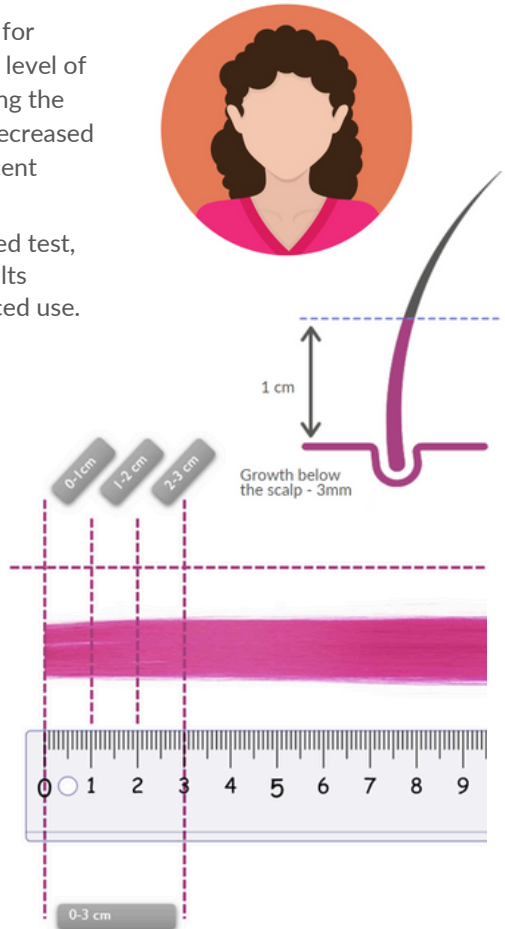
Cansford was able to carry out a segmented test, re-cutting the 0-1cm section, and the results supported the clients' declaration of reduced use.

Had we just measured a 0-3cm overview, we could not have interpreted the declaration of a decrease in alcohol consumption - and would only be able to state the client had consumed alcohol at a chronic excessive level within the previous three months covered. The Society of Hair Testing (SoHT) does advise caution when interpreting these results.

Cansford have studied the results of over 3,000 samples which were segmented into 3 by 1cm sections.

Because Cansford has committed extensive resource to this area, and has tested large numbers of samples, we know our methodology to be sound.

We are therefore confident that we can help clients when they need to prove a decrease in alcohol over a period of months, as described above. Depending on the circumstances, we may recommend PEth testing in conjunction with segmented hair testing for alcohol.





Nail Testing

Because nails are made of the same fibre (keratin) as hair, nails can also be used for testing for alcohol abuse. This is useful if the donor does not have sufficient hair to test.

Nail testing is only suitable as an overview test, it cannot be used to monitor consumption in a specific month.



Carbohydrate-deficient transferrin (CDT) tests

There are several blood tests commonly used to assess alcohol misuse. Carbohydrate-deficient transferrin (CDT) tests are one of the most used biomarkers for monitoring alcohol use.

CDT is very commonly court-ordered in the UK through family courts, although it does have some limitations.

The first is that elevated CDT levels are not always caused by alcohol abuse. Misleading false positive results for CDT testing are seen in many cases, and CDT can be affected by factors such as hormonal changes as well as other diseases and deficiencies.



Liver flow tests

Liver flow tests (LF/LFTs) are grouped blood tests providing information about the state of a donor's liver. The biomarker, the Gamma Glutamyl Transferase (GGT) can indicate a person's alcohol use. However, there are some limitations.

The results may be normal in patients who suffer from serious liver disease and abnormal in patients with no liver disease, or other diseases that may interfere with results. Certain medication can also increase GGT levels, and there have been numerous cases where heavy alcohol users display normal LFT readings.



Full blood count tests

Full Blood Count tests (FBC) are less commonly court-ordered but do turn up from time to time.

The MCV test is a part of a full blood count (FBC) and is mainly used to identify recently ingested alcohol. This test looks at the average volume of red blood cells in the blood sample and can provide some indication of possible alcohol abuse.

The MCV test is the least accurate of all blood testing methods, with a sensitivity rate of 44%. People may have MCV readings outside the normal range for various reasons, such as vitamin deficiencies, medication, and previous alcohol consumption.

It has also been known for heavy alcohol consumers to have normal MCV readings, and for people who have not consumed alcohol to have abnormal readings.



Phosphatidylethanol (PEth) testing

PEth is a direct biomarker of alcohol consumption. PEth is only detected when alcohol has been consumed, and correlates directly with the amount consumed.

PEth provides the highest sensitivity for the detection of current regular alcohol consumption, and a single test shows levels of consumption for (up to) the previous 28 days.

Regular PEth testing can therefore easily be used to monitor alcohol abuse cases over several months.

PEth as a dry blood spot (DBS) test



PEth can be collected as a dry blood spot (DBS) test, which requires a small blood sample from a finger prick. Dried, the sample is stable for months at ambient temperature.

In addition, a DBS test does not require specialist phlebotomy skills; it can be done wherever your clients are – either at home or in another setting.

This form of testing reduces the need for venepuncture, which is helpful for people with poor venous access. It is also easy to store and transport collected samples, as they do not deteriorate quickly in the same way venous blood samples can.

Unlike CDT testing, which will only show ‘chronic’ or ‘not chronic’ use, PEth offers three cut off points, allowing for the results to show abstinence or low alcohol consumption; moderate alcohol consumption; or chronic consumption.

Still a relatively new form of test, acceptance is starting to gain momentum, and tens of thousands of samples have been tested with no known issues identified.

PEth with blood EtG

Furthermore, at Cansford we now offer an additional EtG marker with our PEth test **at no extra charge**. This provides more immediate and precise information about recent alcohol use.

PEth is detectable in the bloodstream within 1 – 2 hours of alcohol use, and for 28 days afterwards

Getting it right matters

The most common court order for alcohol testing is for CDT and LFT tests, sometimes backed up by a hair alcohol test.

These two tests could be replaced by a single PEth test but, as the PEth test gains recognition, we are increasingly seeing all three tests being court ordered.



This is completely unnecessary, and more than doubles the cost to the public purse. It's a worrying trend.

Thinking about your client

Some laboratories argue that PEth needs to be substantiated with other blood tests, such as CDT or LFT. We believe this approach to be **unnecessary, needlessly expensive, and stressful** for the donor (your client).

Combining PEth and hair testing for alcohol misuse - the former covering a 28-day period, the latter up to six months - can show differences and comparisons between recent and long-term alcohol use and can also make a vast difference to case outcomes.



70 Google reviews

4.9 ★★★★★

Great service, very informative staff, extremely understanding, patient and sympathetic towards sensitive family court issues and make every step clear and all questions answered in detail. Very quick turnaround time. Results back within 48 hours. Very well priced and don't look to rip their customers off. I would only recommend Cansford for drug and alcohol testing regarding family and civil court matters

Conclusion

The decisions resulting from alcohol consumption tests can be profoundly impactful for individuals and their families. By offering accredited tests with a swift turnaround time and commitment to innovation, Cansford provides clarity precisely when it's most needed.

Segmented hair testing allows for the monitoring of alcohol consumption trends over time and has proven instrumental in family law cases.

This approach, supported by extensive research and large-scale testing, underscores our confidence in this methodology.

Furthermore, the introduction of DBS PEth testing with EtG offers precise information on recent alcohol use, complementing the insights provided by hair testing.

This **innovative approach reduces the need for multiple blood tests**, streamlining the process and minimising costs.



About Cansford Labs

UK's fastest drug and alcohol testing laboratory - we guarantee a **three working day turnaround** from the sample arriving at our laboratory.

Instruct on Monday and get your report by Friday **the same week**.



Our accreditations

- UKAS ISO 17025 – UK drug and alcohol testing
- UKAS: International Laboratory Accreditation Cooperation Scheme (ILAC)
- ISO 14001: Environmental Management
- ISO 9001: Quality Management
- ISO 45001: Health & Safety
- ISO 27001: Information Security Management
- Cyber Essentials Plus
- Information Commissioner's Office (ICO): #Z3600668
- Good Business Charter
- Armed Forces Covenant
- Mindful Employer Scheme
- Dementia Friends
- Winner of the Sustainable Lab Award – Lab Awards 2022

We also train and manage our own collectors in a UK-wide network of **50+ agents local to you and your client**. In most cases we can arrange a **collection appointment within 24 hours** of a request or sooner if rapid testing is required. One call or email is all it takes.



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 info@cansfordlabs.co.uk

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