

With over 86% of care proceeding cases involving alcohol abuse and thousands of Hair Alcohol tests carried out each month, just how important is the interpretation?



Hair Alcohol testing, critical details for ordering and interpreting results

By David Nicholson and Dr Pascal Kintz

Alcohol is the UK's most harmful drug and is directly related to over 53% of domestic violence cases and costs the NHS over £27 billion per year.

When it comes to care proceedings it is common for the court to request testing to establish if an individual is an excessive alcohol abuser. This is typically done using a hair sample.

The problem is individuals ordering the testing are not aware of what tests should be carried out, why they are needed or they don't have authority for the correct testing.

For these reasons it is estimated that around 15% of alcohol testing is incorrectly ordered by solicitors, resulting in many cases where results are not

able to fully support the person being tested and therefore assist the court.

In the UK we use two types of hair alcohol test; ethyl glucuronide (EtG) and fatty acid ethyl esters (FAEE) testing.

Can you rely on hair testing alone or do you need blood?

Hair testing provides a history of abuse of either 3 months or 6 months from date of sample collection however should never be used alone.

It is critical that blood testing is also undertaken in the form of a CDT, LFT and FBC test as recommended by the Society of Hair Testing (SoHT).

In all guidelines the SoHT advise that hair alcohol results should never be used in isolation.

The blood testing can be used for mutual confirmation and to assist in the interpretation where you have conflicting EtG and FAEE results.

The issue we see with many cases is when the court orders a hair strand test on its own without understanding that without blood testing, in many cases, the results cannot be relied upon.

This causes significant additional costs, delays to the court or means that incorrectly interpreted results are used.

The most important piece of advice is to request blood testing with hair testing to ensure a clear result for your client.

Should you test just EtG, FAEE or both together?

The second issue is the question of what hair test to order. In the UK we use EtG, FAEE and a combination of both. This is unusual as in the rest of the world only EtG is commonly used.

The SoHT guidelines are that for individuals with no chemical treatments EtG alone is suitable however FAEE testing can be used for mutual confirmation. If the individual being tested has dyed, bleached or chemical treated their hair then an FAEE test is important.

FAEE testing alone should never be ordered due to the high number of false positive results and the difficulty in producing identical repetitive FAEE results. FAEE testing is recommended to be used only for mutual confirmation.

What affects the result of the hair alcohol tests?

It is really important that a full list of any chemical treatments or hair products used is provided to the expert writing the witness statement. Many hair products and sprays contain substances that can result in false positive occurrences for excessive alcohol abuse.

Regular washing or bleaching of hair can also remove EtG and result in false negative results.

What is excessive alcohol abuse?

The definition of excessive alcohol abuse by the World Health Organisation is 60g of pure ethanol or more per day for the last 3 months, for males and 40g



“A positive FAEE result should never overrule a negative EtG and should be used for mutual confirmation only along with blood alcohol testing”

Dr Pascal Kintz

for females. 12g is about one UK unit. So that relates to around 67 bottles of wine over 3 months.

The ideal situation with mutual confirmation of results.

The ideal result is one where both hair strand tests and the three blood tests come back confirming each other (i.e. all negative or all positive for excessive alcohol abuse). However in more than 20% of cases this is not the case.

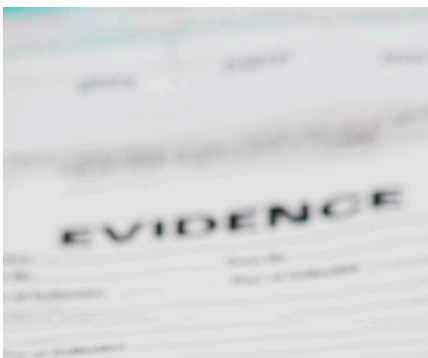
What if you end up with a positive FAEE result and the EtG is negative?

One of the most common mismatch situations is where an FAEE result is positive and the EtG result is

negative. In this case and in accordance with the SoHT this should be reported as either inconclusive or negative depending on what additional information is available. Unless exceptional circumstances a positive FAEE result should never overrule a negative EtG result.

The ideal situation is that you would have blood results to support the negative EtG or indicate otherwise. If the bloods are negative these provide a strong indication of a false positive FAEE.

In conclusion it is important to always test blood when testing hair and if your client has chemically treated hair then FAEE testing is important, if not it serves as mutual confirmation only.



Free Expert Witness Quote

If you have a case where you feel the hair alcohol or drug testing results are interpreted incorrectly call 01373 800130 or email legal@dna-worldwide.com for a quote.

Expert Witness Service for existing cases

By Dr Pascal Kintz

At DNA Worldwide, Dr Pascal Kintz regularly reviews incorrectly interpreted results and provides a customised detailed expert witness statement clarifying the true situation of the client.

A recent example of this is where three hair alcohol tests had been carried out at quarterly intervals. The first test showed excessive alcohol abuse for all testing markers and the client cut down their drinking significantly to 1 -2 drinks per week.

The second test showed negative on bloods and negative on EtG but still showed positive on FAEE. The client at this stage stopped drinking all together.

The third test came back with negative on all markers (in-line with abstinence for EtG) except FAEE which was just above the cut-off for excessive alcohol abuse even though the client had not drunk for 3 months the witness statement advised they were an excessive alcohol abuser.

Upon careful review of all the evidence, by Dr Kintz, a complete report was written for court that supported the fact the client was no longer excessively abusing alcohol.