



# When Hair Testing Misleads: The Problem with Cut-Off Levels

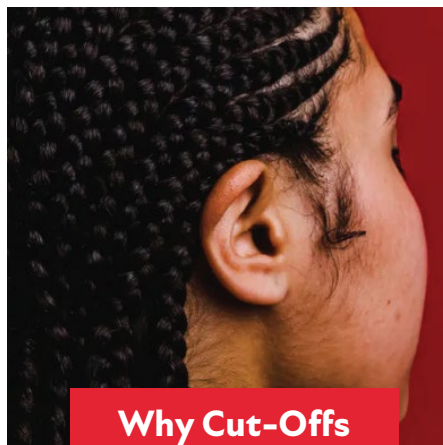
**Forensic Testing Service (FTS) challenges the use of Society of Hair Testing (SoHT) artificial cut-off levels, instead offering expert-led investigations that align with court standards and protect against misleading results.**



## What Are Cut-Off Levels?

In hair and nail testing, a cut-off level is a threshold used to simplify reporting. But this binary “positive/negative” approach can hide key evidence.

A drug may be present but unreported if below the cut-off level, and regular use may not always show a ‘positive’.



## Why Cut-Offs Can Mislead

Cut-off levels ignore factors like hair colour, ethnicity, and exposure. Black hair can show far higher drug levels than lighter colour hair, even with the same substance use. A ‘positive’ for one person may be ‘negative’ for another, leading to discrimination and misinterpretation.



## How FTS Ensures Fair Reporting

FTS believes the family courts deserve more than yes/no answers. We provide a forensic, court-compliant interpretation that meets the legal standard: “the balance of probabilities.” Our expert opinion ensures fair and accurate reporting.

## Get in Touch

To instruct FTS toxicology services, please contact our Customer Support Team

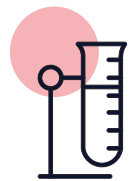
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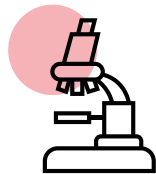


# Why **FTS** Takes a Different Approach



## Where Cut-Offs Come From

Cut-off levels were developed 30 years ago by SoHT when hair strand testing was still new. Despite new research showing their limitations, many labs still use them, leading to misleading and binary reports.



## Scientific Flaws in Practice

Hair colour, cosmetic treatment, UV and passive exposure can all affect results. Light coloured or treated hair may test 'negative' despite use; others may test 'positive' despite abstaining.



## Evidence of Misreporting

FTS tested SoHT cut-offs on 3,000 known-outcome cases. Misreporting was common, showing that cut-offs often fail to reflect real-life complexity and risk unfair outcomes.



## A Better Way for Family Law

FTS uses expert interpretation, not thresholds. Our reports meet court guidance and support fair, accurate decisions in child protection and family law.

## Hair Colour Bias: Evidence from a Controlled Study

A controlled study (Rollins, 2004) found that participants with black hair had 10-15x higher levels of codeine than those with blonde or ginger hair, despite receiving identical doses. Since drugs like opiates and cocaine bind to melanin, people with darker hair are more likely to test 'positive' when SoHT cut-off levels are applied, while others may test 'negative'. This creates a risk of hair colour-based discrimination in child custody cases.

## Codeine Concentrations (pg/mg hair)

|   |          |          |          |
|---|----------|----------|----------|
| Rollins, D. (2004) Role of Melanin in Drug Incorporation into Hair, Presentation, SOHT, Des Plaines, IL |          |          |          |
| Negative  | Negative | Positive | Positive |
| Red   | Blonde   | Brown    | Black    |
| 66.6  | 119.6    | 250.8    | 1134.0   |

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