

2. Sc Guidelines on DNA Evidences – Polity

To prevent tampering and ensure reliability, the Supreme Court has issued uniform national guidelines for handling DNA samples in criminal cases. The new rules mandate a strict 48-hour transport window to labs and an unbroken, documented chain of custody.

Context of the Supreme Court's Intervention

In the landmark case of *Kattavellai @ Devakar v. State of Tamil Nadu* (2025), the Supreme Court of India established a set of uniform guidelines for the collection, storage, and analysis of DNA samples in criminal investigations. This intervention was prompted by the discovery of serious procedural lapses, including breaks in the chain of custody and significant delays in forensic analysis, which raised critical concerns about the evidence's contamination and overall reliability.

Background – The Devakar Case

The Case – The case involved serious crimes of rape, murder, and robbery, where DNA evidence was crucial.

Procedural Failures – There was a significant delay in transporting the collected DNA samples to the Forensic Science Laboratory (FSL). The chain of custody was not properly maintained or traceable, creating strong suspicion of potential tampering or contamination.

Systemic Issue – The Court observed that the absence of uniform national procedures for handling such sensitive evidence was a major flaw in the criminal justice system, especially given the increasing reliance on DNA technology.

Supreme Court's Uniform Guidelines (2025) – To address these shortcomings, the Court issued the following mandatory guidelines –

1. Proper Collection and Documentation –

1. DNA samples must be meticulously packaged and sealed.
2. The package must contain essential details from the First Information Report (FIR).
3. The sealing process must be authenticated by the signatures of the concerned medical professionals, the Investigating Officer (IO), and at least one independent witness.

2. Timely Transport to FSL –

1. The Investigating Officer is responsible for ensuring that the sealed sample is delivered to the Forensic Science Laboratory (FSL) within 48 hours of collection.
2. Any delay beyond this timeframe must be formally recorded in writing with a valid justification.

3. Strict Storage Protocol –

Once a sample is sealed, it cannot be opened, resealed, or altered in any manner without explicit prior approval from the trial court.

4. Mandatory Chain of Custody Register –

1. A dedicated register documenting the complete chain of custody (i.e., every person who handled the evidence) must be maintained.
2. This register must be preserved until the final outcome of the case (conviction or acquittal) and must be submitted as part of the official trial court records.
3. The Investigating Officer is held directly accountable for any lapses or discrepancies in this register.

Significance of the Ruling

Ensures Uniformity – The guidelines establish a standardized procedure for all states, creating consistency even though "police" is a State subject under the Constitution.

Reinforces Accountability – The ruling enhances the quality, accountability, and transparency of forensic evidence handling, reducing the scope for errors or manipulation.

Protects Fair Trial Rights – It strikes a crucial balance between the needs of the investigation and the **accused's right to a fair trial**, thereby helping to prevent wrongful convictions based on unreliable evidence.

The Legal Nature of DNA Evidence

Definition – Deoxyribonucleic Acid (DNA) is the molecule that carries genetic information. For forensic purposes, it is typically obtained from biological materials like blood, semen, saliva, bone, hair, or skin.

Use in Criminal Trials – Its primary function is to establish a link between a suspect and a crime scene by matching the biological origin of the samples.

Legal Standing – The Supreme Court reiterated that DNA evidence is considered opinion evidence under Section 45 of the Indian Evidence Act (now Section 39 of the Bharatiya Sakshya Adhiniyam, 2023).

Probative Value – It is not considered substantive evidence in itself. Its strength varies from case to case and it must be corroborated by other evidence. The scientific and legal integrity of the collection and testing process must also be proven in court.

Previous Judicial Observations on DNA Evidence

The 2025 ruling builds upon a foundation of earlier judicial pronouncements –

Anil v. State of Maharashtra (2014) – The Court held that a DNA profile is valid and reliable only if proper quality control and laboratory procedures are strictly followed.

Manoj v. State of Madhya Pradesh (2022) – A DNA report was rejected because the samples were collected from an open area and were likely contaminated, rendering them unreliable.

Rahul v. State of Delhi (2022) – DNA evidence was discarded because the samples were improperly stored in police Malkhana (storeroom) for two months, raising suspicion of tampering.

Source – [https - //www.thehindu.com/sci-tech/science/what-do-sc-guidelines-say-on-dna-explained/article70048846.ece](https://www.thehindu.com/sci-tech/science/what-do-sc-guidelines-say-on-dna-explained/article70048846.ece)

