



NSP Crime Laboratory Special Report: Rapid DNA FAQs

The Nebraska State Patrol Crime Laboratory strives to provide quality and timely forensic science services to the State of Nebraska. In order to fulfill the Laboratory's mission, the Biology Unit evaluates and implements new DNA technology and testing procedures that will produce the high quality results that our customers expect and are necessary for court, as well as decrease the testing time to provide law enforcement agencies with results in a timelier manner.

One such technological advancement that is currently being marketed to law enforcement and crime laboratories is Rapid DNA. There is a lot of misinformation surrounding Rapid DNA that the Nebraska State Patrol Crime Laboratory would like to clarify for our law enforcement customers. Below are some frequently asked questions and information to assist the law enforcement community in the State of Nebraska to prepare our agencies for the possibility of Rapid DNA implementation.

What is the Combined DNA Index System?

The Combined DNA Index System (CODIS) is the FBI software that allows DNA profiles obtained from offenders, crime scene evidence, missing persons, unidentified human remains, and relatives of missing persons to be searched against each other. DNA profiles can be linked together during these routine searches, which provide law enforcement agencies with investigative leads.



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What is Rapid DNA?

Rapid DNA, or Rapid DNA Analysis, describes the **FULLY** automated (hands free) process of developing a CODIS DNA profile from a **KNOWN REFERENCE** sample buccal swab. The “Swab in—Profile out” process consists of automated extraction, amplification, separation, detection, and allele calling **WITHOUT** human intervention.

Modified Rapid DNA Analysis describes the automated (hands free) process of developing a CODIS DNA profile from a **KNOWN REFERENCE** sample. This process consists of integrated extraction, amplification, separation, and detection without human intervention, but **REQUIRES** human interpretation and technical review.

What is the FBI Rapid DNA Program?

The FBI Rapid DNA Program was established in 2010 to allow federal and state agencies to prepare for the implementation of Rapid DNA. The goal of the FBI’s Rapid DNA initiative is to link commercial instruments capable of producing a CODIS-compatible DNA profile within 2 hours and to integrate those instruments effectively within the existing CODIS structure to search unsolved crimes while an arrestee is in police custody during the booking process. The FBI is anticipating that formal testing of all components of the Rapid DNA System will begin in 2019.

What is the Rapid DNA Act?

As of August 18, 2017, H.R. 510 became Public Law No: 115-50. This Act allows DNA samples prepared by criminal justice agencies using Rapid DNA instruments in compliance with the FBI-issued standards and procedures to be included in CODIS.





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Fact vs. Fiction

Rapid DNA vendors claim:

- Their Rapid DNA instruments have been approved by the FBI for DNA entry into CODIS.
- Their Rapid DNA instruments can analyze DNA from cheek swabs, bloodstains, cigarette butts, gum, bones, hair, semen, and many more sample types.
- Local DNA databases can be used in conjunction with Rapid DNA instruments to allow agencies to create and manage their own DNA databases.

What you need to know:

- As of **November 1, 2018**, one Rapid DNA System, the ANDE, has been approved for use by an accredited forensic laboratory for performing Rapid DNA Analysis. It is important to note that **NO** Rapid DNA System has been approved for use in a law enforcement booking station or agency.
- At this time, the FBI is not including crime scene evidence as samples that can be ran with Rapid DNA Systems. **Any crime scene evidence ran with Rapid DNA Systems prior to approval by the FBI will NOT be eligible for entry into CODIS.**
- By using local DNA databases, law enforcement agencies are diminishing the effectiveness of the CODIS database. **DNA profiles obtained using Rapid DNA prior to FBI approval will NEVER be allowed in CODIS; therefore, these law enforcement agencies will not benefit from the ability to search DNA profiles outside of their jurisdiction/state.** They also will be taking away the ability of other law enforcement agencies to potentially solve cases because the profiles will not be linked through CODIS.



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Steps Nebraska Needs to Take to Use Rapid DNA:

In order to implement the use of Rapid DNA, the following steps **must** be taken to be compliant with the FBI requirements:

- **Arrestee Legislation must be passed and there cannot be any indictment, or delay in DNA processing requirements.**
- **AFIS Livescans must be present at all booking stations who will want to use Rapid DNA Systems.**
- **Updates to the CJIS Network and connectivity in Nebraska must be completed.**
- **Policies and procedures must be developed to establish roles and responsibilities for those agencies using Rapid DNA.**
- **Training must be provided to ensure that Rapid DNA Systems are being used by qualified individuals.**
- **The Nebraska State Patrol Crime Laboratory must ensure that the state's CODIS software is properly configured.**



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If We Can't Use Rapid DNA, How Does This Affect My Agency?

Although Nebraska is not currently ready to **use** a Rapid DNA System in the booking stations, law enforcement agencies can still benefit from the Rapid DNA Program once its testing is completed by the FBI. Crime scene DNA profiles that were developed by the Nebraska State Patrol Crime Laboratory using current methods and standards will be able to be searched against other state's arrestee DNA profiles as they are processed with the Rapid DNA System and entered into CODIS. These searches will take place during the booking process of the arrestee in the other state. Any matches that may result will trigger an immediate notification for the proper Nebraska law enforcement agency and the Nebraska State Patrol Crime Laboratory while the offender is still in custody.

The Nebraska State Patrol Crime Laboratory is currently evaluating all DNA profiles submitted to CODIS and identifying those that will meet the FBI requirements for Rapid DNA searching. Once all eligible profiles have been identified, the Nebraska State Patrol Crime Laboratory will be reaching out to the appropriate law enforcement agencies to determine whether or not to enable the Rapid DNA searching for specific profiles.

For More Information

Please contact the Nebraska State CODIS Administrator, Katherine Rector, at katherine.rector@nebraska.gov, or 402-471-8950.

The following websites also have valuable information pertaining to Rapid DNA.

<https://www.fbi.gov/services/laboratory/biometric-analysis/codis/rapid-dna>

https://docs.wixstatic.com/ugd/4344b0_f84df0465a2243218757fac1a1ccffea.pdf