



# GEORGIA BUREAU OF INVESTIGATION

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## OPERATIONS BULLETIN 2006-02 FORENSIC BIOLOGY JULY 10, 2006

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Director

Semen analysis has consistently been one of the most requested services the Forensic Biology section receives. The evidence related to these requests is typically sexual assault collection kits involving female victims. Traditionally, analysis of these cases involved microscopic analysis of smears to identify spermatozoa. This procedure could take several days to complete one case. Due to the volume of requests and analysis time, sexual assault kits have been a large part of the Forensic Biology backlog. **A new procedure has been implemented that allows a greater number of sexual assault kits to be worked in less time.** This procedure tests for the presence of male (Y) DNA. The statement on the report for this new service will read as indicating the presence or absence of male (Y) DNA rather than the presence or absence of spermatozoa. **If a DNA comparison is requested, known samples of the victim and the suspect (blood or buccal swabs) will be needed.** Microscopic analysis will be retained for use on cases involving male on male sex crimes.

The Forensic Biology section works all service requests whether a suspect is known or unknown. Currently, priority for DNA testing is given to those cases with a suspect due to pending trials. A summary of services provided by the Forensic Biology section are listed below:

1. Analysis for the presence of human blood, saliva, and semen
  - a. If other items are collected in conjunction with a sexual assault kit, for example, bed sheets, clothing, panties, etc., the sexual assault kit will be tested first.
  - b. Male (Y) DNA-screening sexual assault kits to determine the presence of male DNA in sexual assault cases involving female victims.
2. DNA analysis
  - a. Cases involving a known suspect
    - i. These cases will receive priority due to pending trials.
    - ii. Known samples from victim, suspect or consensual partners are needed before testing is initiated.
    - iii. Known samples may be in the form of blood or buccal swabs.
  - b. Cases that **do not** have a known suspect
    - i. It is recommended to submit victim's known sample for interpretation purposes.
    - ii. If an unknown suspect DNA profile is generated it will be entered into CODIS and searched routinely.
  - c. Criminal parentage
    - i. Aborted fetuses should not be stored in formaldehyde or similar fluids. The sample should be stored in a specimen container and kept cold.

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3. CODIS (Combined DNA Index System)
  - a. DNA profiles from probative forensic samples and incarcerated convicted felons are collected and stored in the CODIS database.
  - b. These profiles are routinely searched by the GBI and the FBI.
  - c. CODIS matches
    - i. Agencies are notified by telephone, letter and a report is posted on the DOFS reports website.
    - ii. If an unsolved case is linked to an offender, the agency is notified. A new known sample (blood or buccal swab) is needed from that offender for confirmation of the match. A final report will then be posted on the DOFS reports website.

**Evidentiary samples of last resort. These samples are not tested on a routine basis:**

1. Fingernails
2. Hair
3. Duct tape
4. Items for detection of contact or “touch” DNA, for example you believe the suspect held or touched a particular object.
  - a. Clothing
  - b. Handles from knives, axes, guns, etc.
  - c. Door knobs
  - d. Steering wheels
  - e. Telephones

**If you have questions concerning evidence of last resort, please contact the Forensic Biology section prior to submission of this type of evidence, 404-270-8041.**