

Hairs and Fibers

In crimes where personal contact has occurred, especially if there was physical force, hair and fibers are frequently found as evidence. A cross transfer of hair and/or fibers between a victim and an assailant can provide supportive evidence of an association. In addition, hair recovered from the scene may serve to associate an individual with the scene. Fibers recovered from the clothing of the victim, suspect and crime scene can be compared to known textile materials to determine possible sources of origin.

If a hair is determined to be of human origin and is deemed probative to a case, DNA analyses may be performed on the root (if present) of the hair. Another form of DNA analysis (mitochondrial analysis) may be performed on the hair shaft if the root is absent.

NOTE: Mitochondrial DNA analysis is not available at the Wisconsin State Crime Laboratory. See [Chapter 6 - DNA Evidence and Standards](#) for more details.

I. Collection of Hair and Fiber Standards

It is necessary to obtain standard hair and fiber samples from all possible sources (suspect, victim and scene) for comparison with questioned hairs and fibers.

DNA analysis on hair roots has replaced microscopic hair comparisons. Pubic and head hair standards are still necessary for determining which foreign, questioned hairs may be subjected to DNA analysis. Due to the ease of head hair transfer and potential limited probative value, DNA analysis on hairs is limited.

A. Head hair standards. Obtain at least fifty (50) head hairs by cutting them at the skin surface. These hairs should be col-

lected from various areas of the head such as the crown, sides, front and back to assure that all shades of color and texture have been adequately sampled. The quantity of hairs obtained from a deceased individual should be doubled and the hairs should be **pulled**. Place the hairs in a clean, properly labeled envelope and seal.

B. Pubic hair standards. *Obtain at least twenty (20) pubic hairs by cutting them at the skin surface.* The hairs should be collected from various areas within the pubic region. If this is a deceased individual, double the number of hairs to be collected and pull them. Place the hairs in a clean, properly labeled envelope and seal.

C. Known fibers should be obtained from all possible sources (clothing, drapes, rugs, etc.).

1. Submit the suspected source in total if possible. Place the source in a clean, properly labeled paper bag and seal. (See [Chapter 22 - Clothing and Fabrics](#).)
2. If it is not feasible to submit the source in total, a sufficient quantity should be taken to ensure that each color and kind of fiber involved has been sampled. Place the fibers in a clean, properly labeled envelope or glass jar and seal. (See [Chapter 22 - Clothing and Fabrics](#)). Fibers should not be packaged in plastic bags due to static electricity.

II. Collection of Questioned Hair and Fibers

A. Pubic hair combings. (Usually collected in sexual assault cases and from homicide victims).

Place a piece of paper under the pubic region of the individual and comb through the entire pubic area to dislodge any foreign hairs or other material that may be present. Place the used comb onto the paper and fold the paper around the comb being careful not to lose any of the dislodged evidence. Place the wrapped comb in a clean, properly labeled envelope and seal.

B. Other Recovered Questioned Hairs and Fibers. Separately package the hairs and fibers collected from different persons and different locations.

1. When the amount of evidence is very small, extreme care should be exercised to avoid contaminating or inadvertently losing the material.

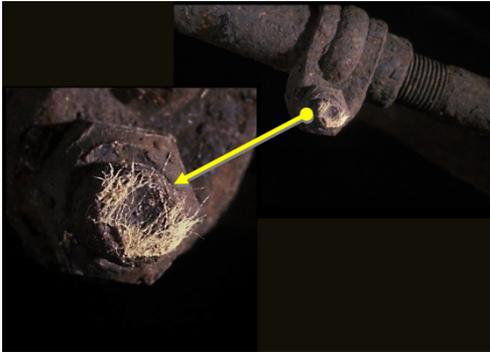


Fig. 23-1 Fibers found on vehicle part

2. The hair or fiber should be placed on a piece of clean white paper and the paper should be tightly folded around the hair or fiber. Place the paper packet in a clean, properly labeled envelope and seal.

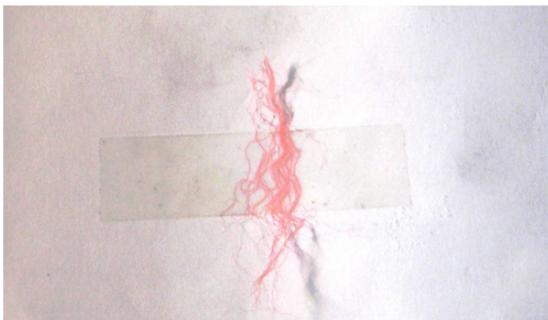


Fig. 23-2 Fibers collected and placed on clean white paper adhered by clear adhesive tape.

Notes