

Principals of Forensic Science Summary

Week 1 Lectures

- **simple transfer:** the trace find on A comes from B or
- **Double transfer:** the traces find on A comes from B, and the trace find on B comes from A
- **The sequence of operations required to intervene at the crime scene includes:**
 1. Aid to injured persons
 2. Protection of the scene
 3. Isolation and interview of witnesses
 4. Preservation of traces
 5. Cadaver management
- **Injured person:** first aid should be administered immediately even though valuable traces may be unavoidably lost or destroyed. Saving lives takes precedence over all other considerations. The first police on the scene should have requested medical assistance if necessary.
- **If first aid to the injured is not immediately essential, the investigator should note:**
 - The victim's position on a simple sketch, how the victim is lying or sitting
 - The position of the hands, arms and legs, the condition of clothes,
- **The investigator should:**
 - Instruct emergency medical personnel how to enter the scene, not to disturb it needlessly
 - Observe the actions of the medical personnel noting the objects they moved, where they walked
 - Arrange for and custody of the clothing of the victims, which is usually cut off at the scene or in the hospital.
- **Biological hazards** from dead or injured victims
- **Chemical hazards** in clandestine laboratories or fire scenes
- **Structural** collapse at fire and major disaster scenes

Indoor Crime Scene: If the scene is indoors, the barricade should include not only the central scene (e.g. a room), but also the whole house and the probable entry and exit paths used by the criminal. This can include:

- ground outside a window,
- rooms through which the criminal had to pass,
- stairs, driveway, etc.

Outdoor Crime Scene: area should be roped off to include the path taken by the criminal to and from the central scene. Use trees, police cars or poles to define the roped off area.

- An officer on duty to keep out intruders is even more important than for indoor scenes. There will almost always be challenges to the security of the scene.

There may be other interviews required, depending on circumstances.

- Victims who are capable of being interviewed
- Other civilians present at the time of the incident
- Other civilians who came to assist after the incident
- Professionals who attended (fire, ambulance, police)

There may be **transient traces** at the scene. These are traces that are progressively destroyed as time passes (**smells, hot evidence, cold evidence**). During the preservation stage of the crime scene operations, any transient traces should be documented and collected

- A cadaver should not be touched and should be protected as with other traces. The corpse should not be covered with a blanket, because it can destroy relevant physical evidence and bring foreign irrelevant traces.
- In outdoor situations with poor weather the corpse can be protected by a plastic foil, or (better) a tent.
- A forensic pathologist must attend the scene. The investigator must liaise closely with the pathologist at each stage of the crime scene processing
- The exact position of the corpse must be noted.

Notes should:

- be taken in a chronological order,
- detail, step by step, each and every action the officer makes,
- detail observations made at the scene, moving from the general to the particular
- be written in a clear and legible fashion, and
- be as specific and accurate as possible.

Notes should include the following information:

1. the date and time the crime was first reported to the police,
2. the time of the first arrival on the scene by the investigator,