

# Last Lecture: RCMP Labs

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There are three, one in Vancouver, Edmonton and Ottawa

Note that the Vancouver Lab may be replaced by one in Surrey BC

<https://www.cbc.ca/news/politics/rcmp-forensic-lab-backlog-1.5239994>

# Securing/Searching the Crime Scene

Required reading Chapter 2

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# Lectures Overview (Today and Thursday)

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## Today

- The crime scene
  - Securing
  - Surveying
  - Searching
- Crime Scene Notes

## Thursday

- Photography
- Lab Info

# Arrival at the Crime Scene

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Upon arrival the first responding police officer must assume the crime is still in progress until proved otherwise. Once it is established that the crime is not in progress, the first responding officer to a crime scene is responsible for:

1. Acquiring medical assistance for injured victims
  - Medical personnel must avoid disturbing evidence and approach the victim by an indirect route.
2. Detaining any potential suspects or witnesses
  - Statements are taken from victims, witnesses, and suspects.

# Arrival at the Crime Scene

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3. Securing the crime scene to the greatest extent possible
  - The boundary is sealed off, and guards are posted at the entry to the crime scene if needed.
  - All civilians and unauthorized personnel are excluded from the crime scene.
4. Calling for any additional personnel needs such as other officers and/or forensic investigators.
  - The personnel required depends upon the nature of the crime scene.

# Securing the Crime Scene

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- The boundaries of the crime scene must be secured with crime scene tape, ropes, or cones.
- The secured area should include the area where the crime took place and the surrounding area where physical evidence may be located.



# Securing the Crime Scene

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- Once the boundaries are secured, guards may be posted to restrict access to the crime scene.
- A detailed log is kept of personnel movements in and out of the crime scene. This log includes personnel names and time of entry or exit.
- Investigators should never do anything that might alter the crime scene including smoking, eating, drinking, or littering.

# Surveying the Crime Scene

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The Walkthrough – initial survey of the crime scene

- 1) Locate the perpetrator's point of entry and exit.
- 2) Take and Indirect path to the center of the crime scene.
- 3) Locate and document obvious items of evidence.
- 4) Observe and record the conditions of the scene.

Special attention is paid to items or conditions that suggest timing of the incident or do not appear to belong.

E.g. Timing suggested by car in the driveway with warm or cold engine, partially eaten food, or food preparation, television on, shower running water cold or hot?



# Surveying the Crime Scene

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## Primary Crime Scene

- The location at which the initial crime occurred
- Ex: the house in which a murder occurred

## Secondary Crime Scene

- The location at which events after the initial crime occurred
- Ex: the shallow grave in which a murder victim was buried
- Whether a crime scene is **primary** or **secondary** may be inferred by the presence or absence of specific evidence.

# Surveying the Crime Scene

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## At the **Command Center** investigators

- 1) Receive their assigned tasks from the lead investigator.
- 2) Store their equipment.
- 3) Meet to discuss aspects of the crime scene.
- 4) Communicate with law enforcement personnel and personnel at other crime scenes.

# Searching the Crime Scene

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- The search for physical evidence at a crime scene must be thorough and systematic.
- The search pattern selected will normally depend on the size and locale of the scene and the number of collectors participating in the search.
- For a factual, unbiased reconstruction of the crime, the investigator, relying upon his or her training and experience, must not overlook any pertinent evidence.
- Physical evidence can be anything from massive objects to microscopic traces.

# Locating the Evidence

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- Locard's Exchange Principle
  - When two objects come into contact, materials are exchanged between them
- Physical Evidence
  - Large objects to microscopic traces
- Not all evidence is clearly visible or apparent and therefore may only be detected after a thorough examination in the laboratory
  - Collect carriers of trace evidence, i.e. clothing, vacuum sweepings, fingernail scrapings, etc.

# Locating the Evidence

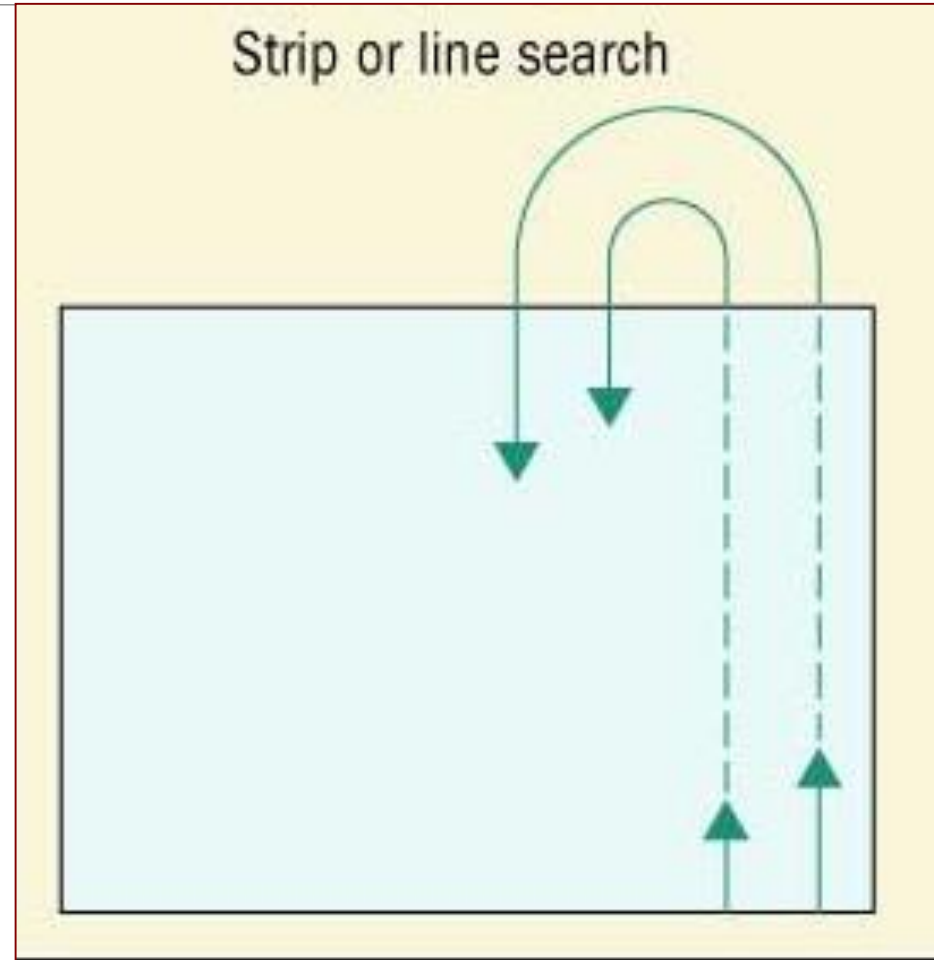
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- Upon locating evidence, the integrity of that evidence must be secured
- The investigator must:
  - record its location and make notes that provide a detailed description of the evidence
  - Sketch the evidence relative to the scene
  - Photograph (scene shots and close-up)
  - Mark its location with an evidence marker for collection and processing

# Searching the Crime Scene

## Line/Strip Search Pattern

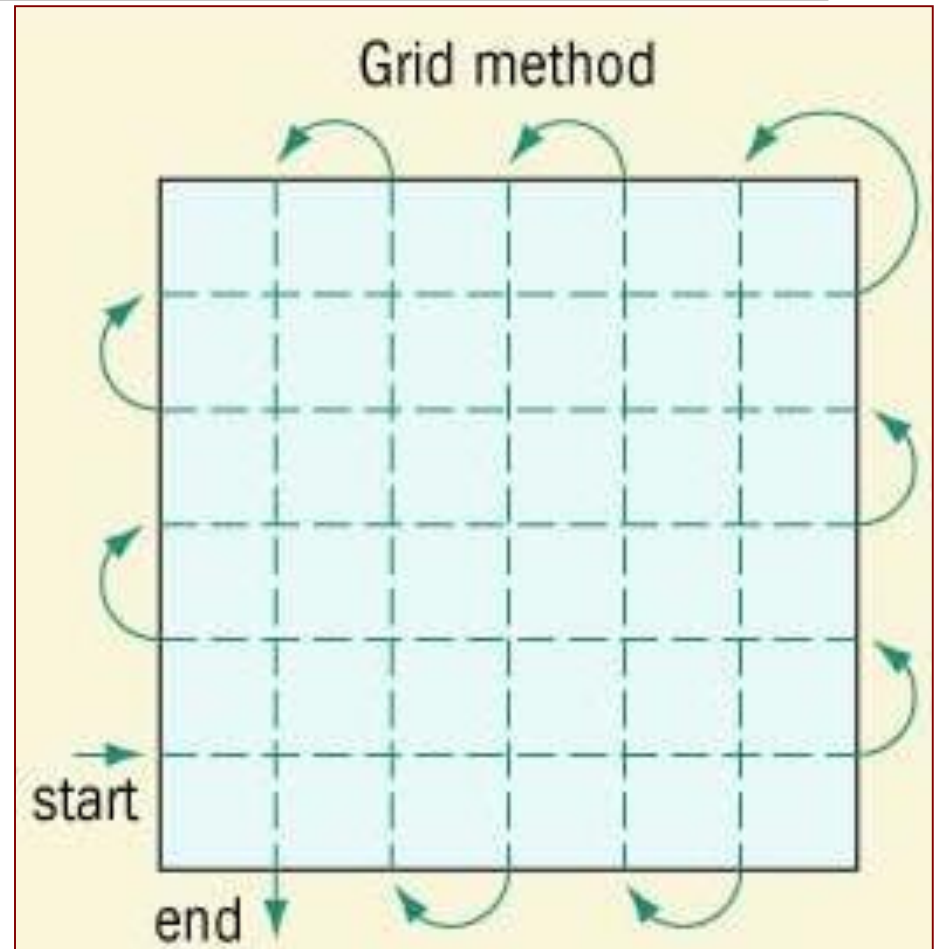
One or two investigators start at the boundary of the crime scene and search in straight lines across to the other side of the crime scene.



# Searching the Crime Scene

## Grid Search Pattern

Two or more investigators form a grid by searching in line patterns that overlap and are perpendicular to each other.

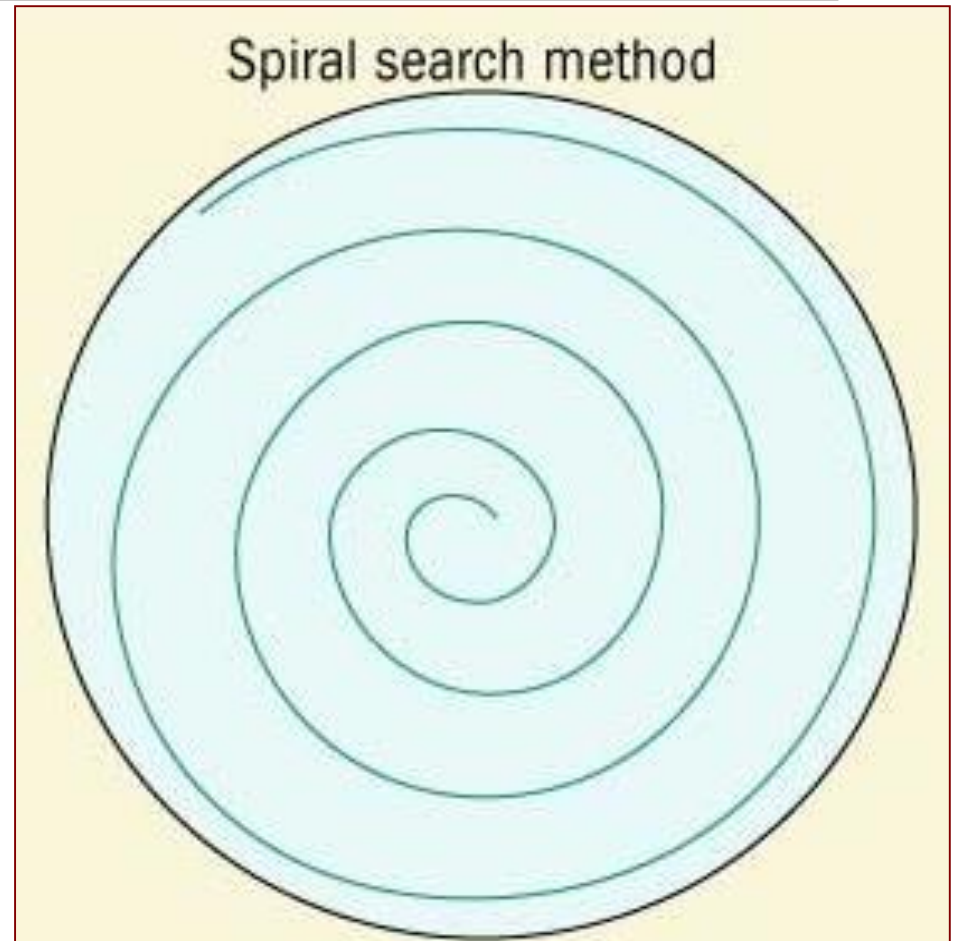


# Searching the Crime Scene

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## **Spiral Search Pattern**

One investigator searches in a spiral path from the center of the crime scene to the boundary (outward) or from the boundary of the crime scene to the center (inward).





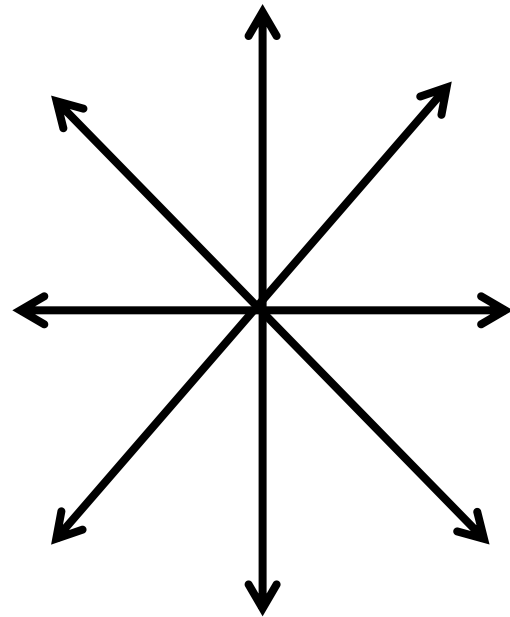
# Searching the Crime Scene

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## **Wheel/Ray Search Pattern**

Several investigators search in straight lines from the center to the boundary (outward) or from the boundary to the center (inward).

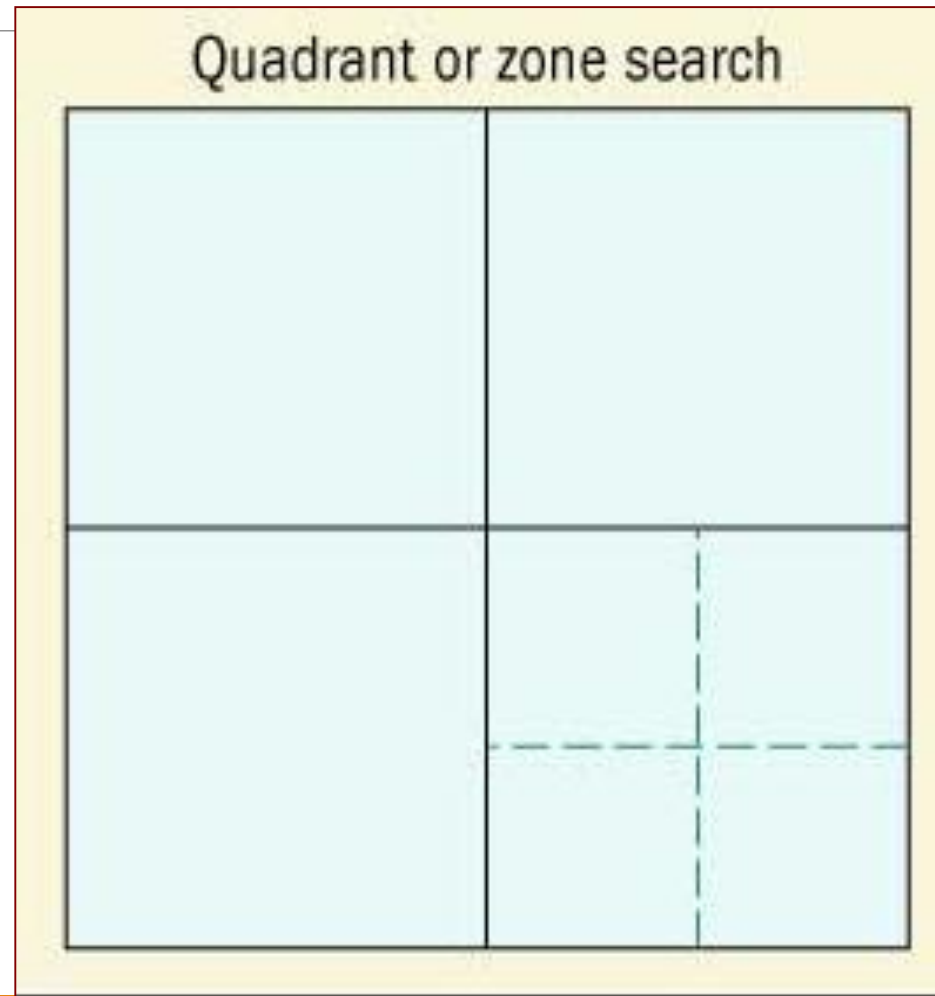
Wheel/Ray Search Pattern



# Searching the Crime Scene

## Quadrant/Zone Search Pattern

The crime scene is divided into smaller sections (zones). One or more investigators are assigned to search each zone.



# Searching the Crime Scene

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- **Vehicle Searches**

- Investigators search interior and exterior of vehicle.
- The vehicle may be searched at the crime scene or at the police department or crime laboratory garage.

- **Night Searches**

- Investigators avoid carrying out outdoor or dark indoor crime scene searches at night.
- If possible, the crime scene is secured and guarded until morning.

# Departing the Crime Scene

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- The experienced lead investigator decides when all pertinent physical evidence has been recorded and collected at the crime scene.
- A final survey is undertaken to visually review the scene and collect all evidence and equipment.
- Following the final survey, the crime scene is released to the proper authorities.

# Beyond the Crime Scene

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- Search for physical evidence extends beyond the crime scene
- Medical examiner's and/or coroner's office
  - During autopsy, physical evidence will be recorded, collected and forwarded to the crime scene investigator for processing

# Beyond the Crime Scene

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- The following is a sample list of the items the medical examiner or coroner would send to the forensic laboratory:
  - Victim's clothing
  - Fingernail scrapings
  - Head and pubic hairs
  - Blood (for DNA typing purposes)
  - Vaginal, anal, and oral swabs (in sex-related crimes)
  - Recovered bullets from the body
  - Hand swabs from shooting victims (for gunshot residue analysis)

# Crime Scene Notes

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- Note taking begins when the investigator is contacted and requested to report to the crime scene.
- The crime scene notes should begin with:
  - 1) The identity of the person who contacted the investigator
  - 2) Time of contact and arrival at the crime scene
  - 3) Preliminary case information
  - 4) Personnel present on arrival and those being contacted

# Crime Scene Notes

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- Notes contain a personnel log, all observations made by the investigator, and the time observations were made.
- Notes are taken in a uniform layout, concurrently as the observations are made.
- Notes are written in a bound notebook in blue or black ink.



# Crime Scene Notes

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- Investigators may choose to record crime scene notes on audio tapes.
  - This leaves the hands free to process the scene as the notes are taken.
  - Tape-recorded notes must eventually be transcribed to a written document.

# Lecture Review

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- The crime scene
  - Securing
  - Surveying
  - Searching
- Crime Scene Notes