

Erie County CPS Forensic Laboratory

Impression Evidence



An impression is an object or material that has retained certain characteristics from another object or material that it has come in contact with.

It may be found in the form of a track, which is a mark or series of marks made by a person, animal, or a thing that has passed, such as footwear or tires.

The most common impressions found at crime scenes are footwear impressions (“shoeprints”) or tire impressions (“tire tracks”).



How impression evidence is valuable:

- Investigative leads
- Collaboration
- Hard evidence
- Number of persons
- Actions of persons
- Location of person(s)
- Tracks may lead to other evidence
- Point of entry
- Point of exit
- Route of escape
- Method of escape (vehicle tracks)
- Positive I.D. of suspect or vehicle

Note: Partial and Full impressions have the same value. All partial impressions should be recovered as well.



Places to look for impression evidence:

Soil	Grass	Sand
Snow	Carpet	Tile
Hardwood	Concrete	Cushions
Clothing	Countertops	Window Sills
Glass	Paper	Skin
Blood	Spilled paint	Points of Entry

Note: it is important to remember that not all impressions are readily visible to the naked eye. For example, if a door was kicked in during a robbery, a footprint could be left behind. To be able to see these

“latent” impressions, oblique lighting may be necessary. Oblique lighting can be created with a flashlight held almost parallel to the surface in question.



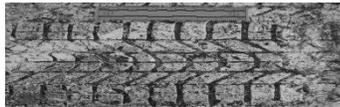
Collection Procedure:

Prior to collecting impression evidence, the impression needs to be photographed. When photographing impression evidence, a tripod and ruler (scale) must be used, and the ruler must be in the same plane as the impression. The camera needs to be directly over the impression, not taken from an angle. A level on the tripod is recommended.

If this technique is not used, the impression cannot be used for size determination or comparison without a cast!

Note: To photograph an impression in snow, spray snow wax or paint lightly on the impression to highlight the ridges and create contrast. Then the impression MUST be photographed immediately or it will melt.

Photograph the impression using various angles of lighting. The shadows detected in the photographs often hide the detail, so photographing the impression with different light locations will reduce the loss of detail.



Casting Procedure:

Casting is an enhancement method that creates a positive representation or reproduction of an item that made the track.

- Dental stone is recommended to make a cast.
- Dental stone does not require a strengthening agent.
- Mix the dental stone with water, pour it carefully over the impression and allow it to harden.
- Be sure to label the cast with date, case number and your initials before removing it. If known, mark the outside of the edge of the cast/track. This is important for tire impressions.



Submission Criteria:

Submit the entire object containing the impression. This includes: clothing, flooring, paper, glass, furniture and doors. Take care when wrapping the objects to protect the original impression.

If the original impression cannot be submitted, a cast of the impression and/or 1:1 photographs of the impression are acceptable. The images can also be submitted on a CD.

For electrostatic lifts, submit the lift in a folder or box in order to protect from a loss of detail. Plastic bags will create static and will alter the impression.

It is helpful to provide the laboratory with as much information as possible regarding where the impression was obtained, when it was recovered, and when the suspect tire/footwear was collected. This time frame can be very critical in the examination of impression evidence.



Want help?

If you have any question about photographing, preserving, casting, collecting or submitting impressions or associated footwear/tires, please contact the Trace Section of the CPS Forensic Lab at 858-6317. You can also email any questions or concerns forensic.lab@erie.gov.