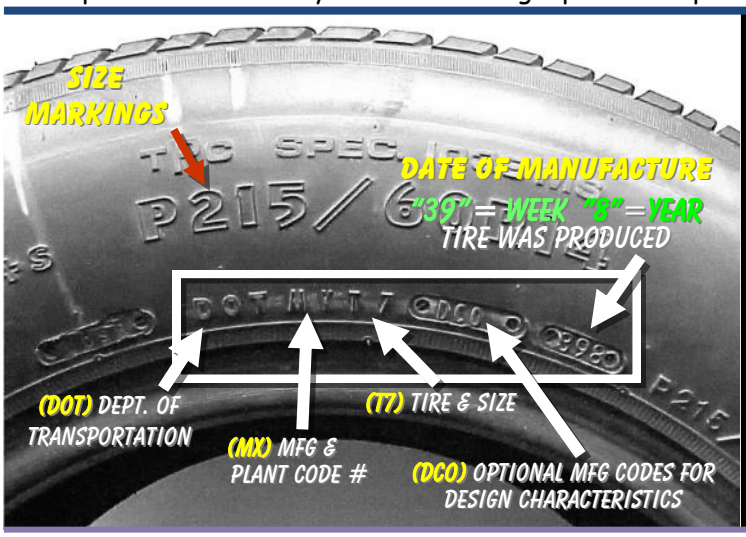
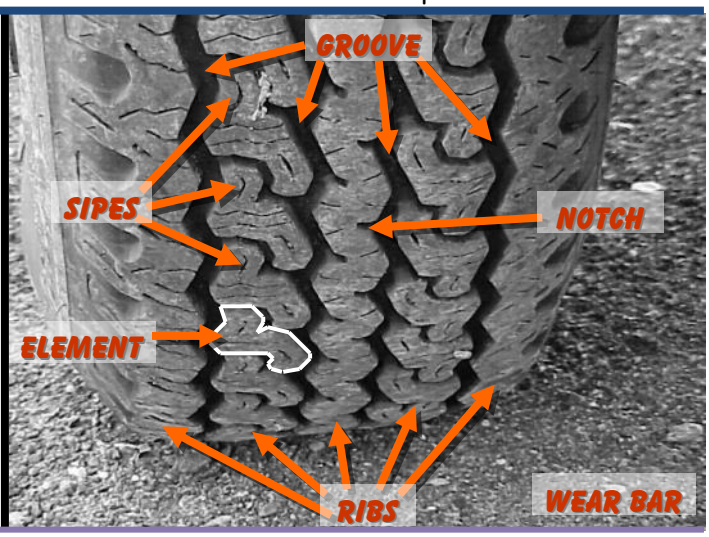
TIRE TRACKS

- Tire photographs or casts from a crime scene can determine if tracks could have been made by a particular tire.
- Tracks provide investigative leads using the TireTraks database. A search can help to narrow down the model/ make/year of

  the car or truck. This search can also be done in reverse.
- A database search can determine the make & model of the tire that made tracks at a scene.
- Comparison can identify a tire as making a particular print if individual characteristics are present.





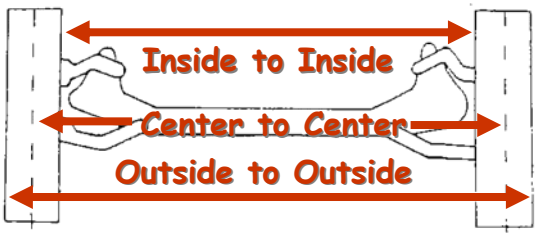
TIRE TERMINOLOGY

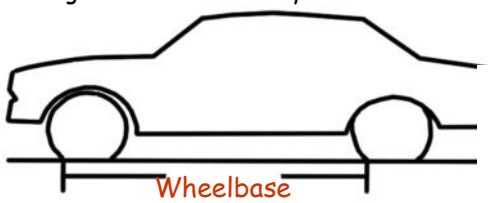
Ribs - sections of tread rubber that run in rows circumferentially around the tire. Ribs actually make contact with the road.
Elements - unique and separate tread design areas distinguished by grooves, slots, sipes.
Grooves - furrows that separate ribs and run around the tire circumference.
Sipes - narrow slits incorporate into the tread design to provide improved traction and channel water off the surface of the ribs.
Notch - a short groove that enters the side of a rib or element but does not continue through.
Tread Wear Indicator (wear bars) - recessed areas in the groove and run laterally across the tread. Indicates the useful life of the tire.

TIRE PRINT CHECKLIST

- Mark the start and end location on print
- Mark each wear bar location on print
- Tire brand (eg. Goodyear Eagle ZR)
- Location of tire (eg. drivers front)
- Tire type and size (eg. P 215/ 60R14)
- Serial Number (eg. DOT MXT7 DCOL 0301)
- Direction of travel (Inside/outside of tire)

TRACK WIDTH MEASUREMENTS

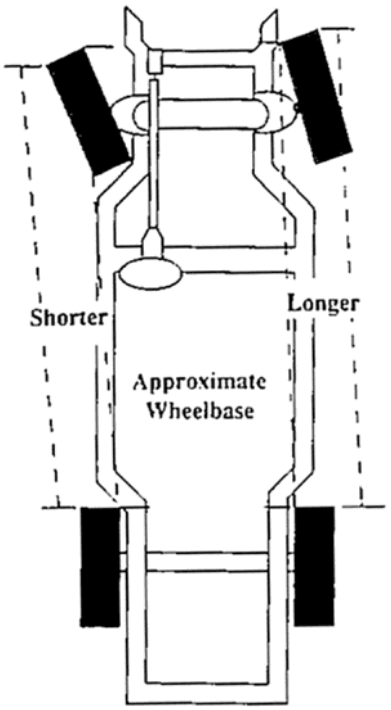




- Wheelbase is the distance between the front and rear axles of a vehicle, obtained by measuring the leading edge of the rear track to the leading edge of the front track on the same side.
- Whenever possible measure both sides to ensure accuracy.

➜ When wheels are turned; ➜

- Measure the inside leading edge of the rear track to the inside leading edge of the front track to obtain the approximate wheelbase.
- Measure both sides if possible.
- Average measurements from both sides



Footwear





Incorrect Photographic Method

- Photographs should be your primary form of documentation. ***Take the time to take good photographs.***
- Photograph with a scale with camera held directly over the print, not from an angle.
- Take photos in high resolution JPEG or TIFF format and use a tripod, if available
- Oblique lighting (light from different angles rather than from the camera) should be used to bring out details in particular areas of the print.
- Please submit photographs on a CD-R or DVD-R…Not a CD-RW or DVD-RW or via e-mail.



Correct Photographic Method

Comparison - What do we look for?

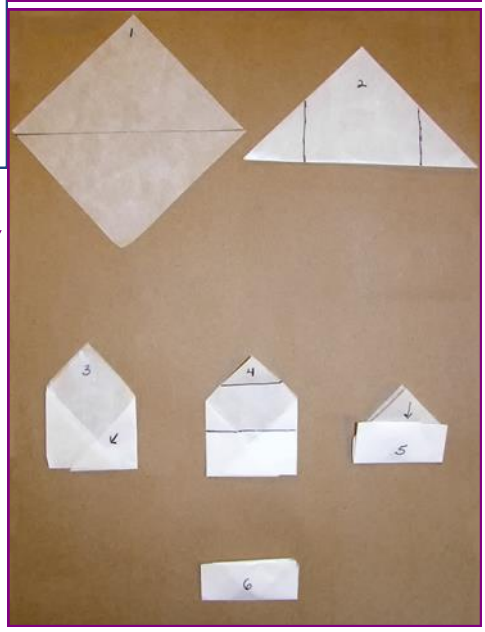
➜ Class Characteristics

- Design or pattern
- Physical shape and size
- Some manufacturing characteristics

➜ Individual Characteristics

- Degree of wear
- Position of wear
- Random identifying characteristics

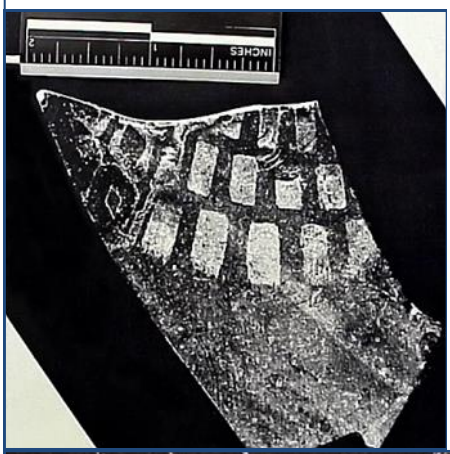
The Druggist's Fold Step by Step

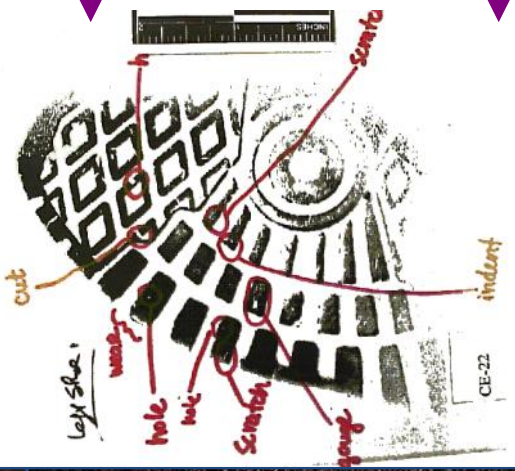


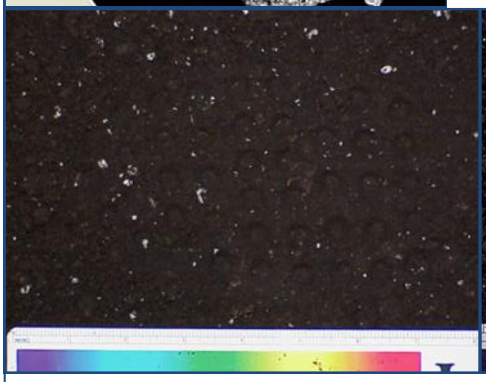
Druggist's Fold inside of proper packaging (seal every crack, every opening on outside envelope to ensure that evidence stays contained within).

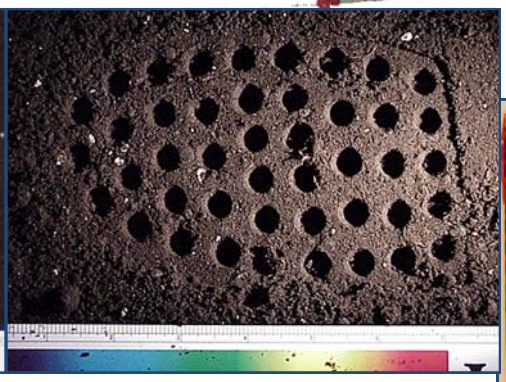


SHOEPRINT COMPARISON









- It can connect a suspect to a scene. It may also be able to identify a shoe as making a particular print if individual characteristics are present.
- It may provide investigative leads as to the brand, size, etc. from the tread by utilizing FBI data bases and internal logs.
- There may also be blood, glass, paint, hair, fibers or other artifacts in the bottom of the known shoes that may connect the suspect to the scene.

WHERE TO FIND HAIRS AT A CRIME SCENE

EXCERPTS FROM PRESENTATION BY BCA FORENSIC SCIENTIST KATHERINE IGOWSKY

Hair Trivia

- There are 90,000 to 150,000 hairs on an average head
- We loose about 100 head hairs per day
- Head hair grows about 1/2" per month
- The average growth cycle of head hair is 2-6 years

Types of Crimes you might be collecting hairs at;

- Homicide
- Assault
- Sexual Assault
- Burglary
- Missing Person
- Criminal Vehicular Operation

Where to look for questioned hair;

- Cars
- Weapons
- Point of Entry/Exit
- On bodies
- Clothing
- Pubic regions
- Location where the incident occurred
- In blood on any object (blood is very sticky)

Don't forget to collect knowns;

- Collect 25 head and pubic hairs from all possible suspects and victims.
- Regions of the body; Head, Facial Limb, trunk, pubic region
- Collection techniques; Scraping, Picking, Taping, Vacuuming
- Collect from different areas on the head and pubic region.
- Add hair sample to your warrant for DNA samples
- The longer you wait to collect the hair, the more it will change.

What if the person of interest is missing?

- Check for hairbrushes (gather info about the hair brush or other source—user, location collected from), bathrooms, wastebaskets, shower, towels, bedding)

How do you package hairs?

- Lift it with clear acetate sheets
- Pick up with a tweezers and place it in the folds of a post-it note
- Vacuum with a trace evidence vacuum with a filter attachment
- Comb pubic regions and collect hairs from bodies by picking or tape lifting.
- Place tape lifts and post-it notes in an envelope and be sure to tape all of the edges (but don't get the hair caught in the seals)
- Place hairs from different regions in separate envelope
- Place plucked and combed hairs in separate envelopes
- Label envelopes with the location where hairs were collected from

Consult the BCA website for additional protocols;

- Evidence Submission Page (for guidelines):

https://dps.mn.gov/divisions/bca/bca-divisions/forensic-science/Pages/evidence-submission.aspx

PHARMACY FOLD FOR TRACE EVIDENCE COLLECTION.

USE FOR PAPER, GLASSINE PAPERS, OR POST-IT NOTES

