

Traffic Crash Investigation Study Guide

Key Concepts and Definitions

1. Responding to the Scene of a Crash

- **Steps to Follow:**
 1. Gather information before responding.
 2. Follow the shortest and safest route.
 3. Use safe driving techniques while en route.
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2. Actions at the Scene

- **Upon Arrival:**
 - Park patrol vehicle safely.
 - Call for additional assistance if needed.
 - Ensure injured individuals receive first aid.
 - Control traffic flow and prevent access to the scene.
 - Separate drivers and witnesses for interviews.
 - Mark and collect evidence quickly.
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3. Damage Types

- **Contact Damage:** Caused by direct impact with an object external to the vehicle.
 - **Induced Damage:** Caused by the vehicle reacting to an impact elsewhere (e.g., roof buckling from a front collision).
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4. Crash Causes

- **Mechanical Failures:** Cause less than 1% of crashes annually.
 - **Key Elements in Every Crash:**
 - People.
 - Vehicles.
 - Roadway.
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5. Physical Evidence on the Roadway

- **Types:**
 1. Final resting positions of vehicles and bodies.
 2. Tire marks (skids, yaws, and prints).
 3. Gouge marks (damage to the road caused by vehicle parts).
 4. Debris (broken parts, fluids, dirt).
 5. Damage to roadside objects.
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6. Final Resting Positions

- **Controlled:** Resulting from driver control (steering/braking).
 - **Uncontrolled:** Determined by physics after loss of control.
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7. Tire Marks

- **Types:**
 - Skids: Created by locked tires sliding.
 - Yaws: Curved marks made by sliding tires freely rotating.
 - Prints: Normal rotation marks.
 - **Skid Subtypes:**
 - Skip.
 - Gap.
 - Curved.
 - **Yaw Marks Reveal:**
 - Excessive speed in curves.
 - Vehicle's direction and location.
 - Lack of driver intention to stop.
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8. Debris and Gouges

- **Debris:** Broken parts, fluids, or dirt from the crash.
 - **Gouges:** Physical damage to the road caused by vehicle parts.
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9. Measuring Evidence

- **Reference Points:**
 - Tangible: Pre-existing objects (e.g., utility poles, fire hydrants).
 - Intangible: Points created by officers relative to tangible points.
- **Methods:**

- **Coordinate:** Two measurements forming a right angle.
 - **Triangulation:** Three measurements forming a triangle.
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10. Sketching the Scene

- **Minimum Requirements:**
 - Final resting positions of vehicles and bodies.
 - Area of impact.
 - All evidence (skid marks, debris, fluids, and damaged objects).
 - **Marking Evidence:**
 - Small items (≤ 3 ft): Use 1 mark.
 - Large items: Use 2 marks.
 - Curved or irregular items: Use 3 or more marks.
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11. Crash Reports

- **Definitions:**
 - Motor Vehicle Traffic Crash: Unintended injury or property damage caused by vehicle motion.
 - Reportable Crash: Involves injury, death, or property damage \geq \$1,000.
 - **DMV-349 Requirements:**
 - Submit within 24 hours after completing the investigation.
 - Handwrite or type using black ink.
 - **Green Sheets:** Used for driver exchange information.
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12. Indicators of Impact Area

1. Dirt and debris patterns.
 2. Gouge marks on the roadway.
 3. Sharp angles or offsets in skid marks.
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13. Photographic Evidence

- **Uses:**
 - Preserve the scene visually.
 - Supplement, not replace, a thorough investigation.

14. Measurement Guidelines

- Record measurements to the nearest inch.
 - Never use pacing for measurements due to inaccuracy.
 - Use steel tape for the most accurate results.
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15. Crash Scene Terms

- **Offset of Skid Marks:** Indicates the point of impact.
 - **Positional Asphyxiation:** Risk from restraint or body position limiting breathing—avoid prolonged face-down positions.
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16. Common Areas for Crashes

- Public highways/streets.
 - Public vehicular areas (PVA).
 - Private property.
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17. Time-Sensitive Reporting

- File a supplemental report within 12 months if a crash-related injury results in death.
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18. Miscellaneous Key Points

- **Vehicle Searches:** Inspect thoroughly for contraband before and after use.
- **Transport Precautions:** Secure all restraints and verify prisoner information.