

Multiple Choice

1. The amount of spatter from a blood droplet falling on a non-porous surface is _____ that of a drop of blood of equal size falling from the same distance onto a rougher, porous surface.
 - a. the same as
 - b. less than
 - c. greater than
2. The pointed end of a bloodstain always faces _____.
 - a. opposite its direction of travel
 - b. toward the direction from which the force came
 - c. in its direction of travel
 - d. toward the position of the blood source
3. What characteristic will a blood droplet deposited at an angle of impact of about 90 degrees (i.e., directly vertical to the surface) exhibit?
 - a. acute elongation (extremely elongated)
 - b. a tail showing the directionality
 - c. elliptical in shape
 - d. approximately circular in shape
4. The pressure of the pumping of oxygenated blood out of an injury causes bright red colored blood to spurt out and form what pattern?
 - a. cast-off
 - b. passive
 - c. arterial spray
 - d. Both b and c
5. A trail pattern leading away from the victim at a stabbing scene was most likely created by what?
 - a. A victim's arterial wound.
 - b. Blood dripping from the murder weapon or suspect.
 - c. Blood expelled from a respiratory injury.
 - d. Postmortem (after death) movement of the victim.
6. Which of the following is important in the interpretation of bloodstain patterns?
 - a. The direction of impact.
 - b. The surface texture.
 - c. The angle of impact.
 - d. The amount of blood.
 - e. All of these.
7. Rough surfaces usually result in stains with what type of spatter?
 - a. Forward
 - b. Back
 - c. Blow-back
 - d. Satellite (spines)
8. What type of impact spatter would create a pattern consisting of large, separate drops with diameters of 5 millimeters?
 - a. Low-velocity spatter
 - b. Medium-velocity spatter
 - c. High-velocity spatter
 - d. Both a and c
9. Generally, bloodstain diameter _____ as height increases.
 - a. decreases
 - b. remains unchanged
 - c. increases
 - d. increases lengthwise, decreases widthwise

10. In general, as both the force and velocity of impact increase, what happens to the diameter of the resulting blood droplets?

- a. Increases
- b. Stays the same.
- c. Decreases
- d. The diameter is unaffected by force and velocity.

11. Droplets of _____ are very small. They may not travel far and could be overlooked.

- a. High-velocity spatter
- b. Transfer patterns
- c. Medium-velocity spatter
- d. Low-velocity spatter

True (A) or False (B)

12. Gunshot exit wounds commonly produce medium-velocity spatter.

13. The presence of bubbles of oxygen in hydrogen peroxide drops can differentiate blood from other types of stains.

14. Blunt force trauma is normally associated with medium-velocity spatter.

Matching

- | | |
|-----------------------------|--|
| 15. Angle of Impact | a. An impact spatter pattern created by a force traveling at 100 ft./sec. or faster and producing droplets with diameters of less than 1 mm. |
| 16. Arterial Spray | b. An impact spatter pattern created by a force traveling at 5–25 ft./sec. and producing droplets with diameters between 1 mm and 4 mm. |
| 17. Medium-velocity spatter | c. The acute angle formed between the path of a blood drop and the surface that it contacts. |
| 18. Low-velocity spatter | d. An impact spatter pattern created by a force traveling at 5 ft./sec. or less and producing droplets with diameters greater than 4 mm. |
| 19. High-velocity spatter | e. A characteristic bloodstain pattern containing spurts that result from blood exiting under pressure from an arterial injury. |

Matching

- | | |
|--------------------------|--|
| 20. luminol | a. This substance is a color test for blood. It turns pink in the presence of a base. |
| 21. phenolphthalein | b. This substance, though a good test for blood, is rarely used due to its being classified as a carcinogen. |
| 22. hydrogen peroxide | c. This substance produces bubbles when it comes into contact with the enzyme catalase found in blood. |
| 23. leucomalachite green | d. This substance causes blood to glow a faint blue. |
| 24. benzidine | e. This substance, widely used by the FBI, turns green when it reacts with hemoglobin in the blood. |