

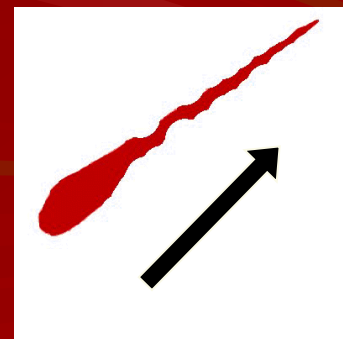
# Blood Spatter

# Blood Spatter Evidence

- Crime scene investigators look for:
  - Origin of blood
  - Type of instrument that caused bloodstains
  - Direction from which an object struck the victim
  - Location & movement of victim
  - Distribution of blood stain (spatter)
  - Appearance of blood (dried/fresh)

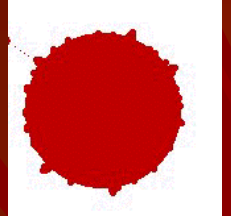
# Investigating Spatter

- Herbert L. MacDonell studied blood spatter and suggested investigators note the following:
  1. Texture of surface will affect spatter pattern
    - The more textured : wood, concrete – the more spatter
  2. Pointed end of blood stain shows the direction blood was traveling



# Investigating Spatter Cont.

3. Impact angle:  $90^\circ$  – more circular

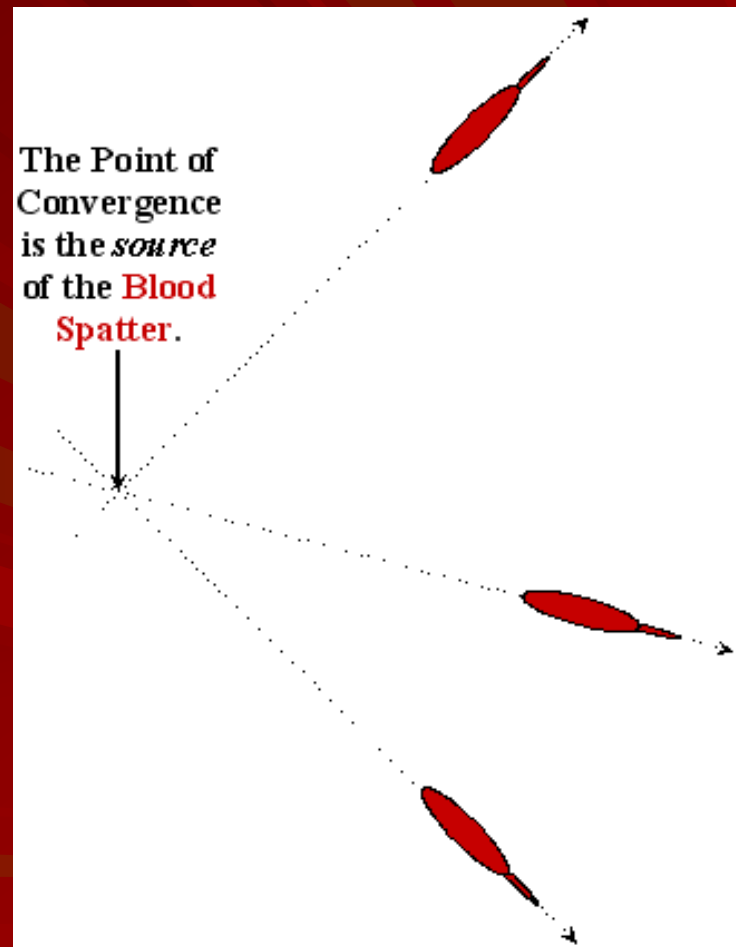
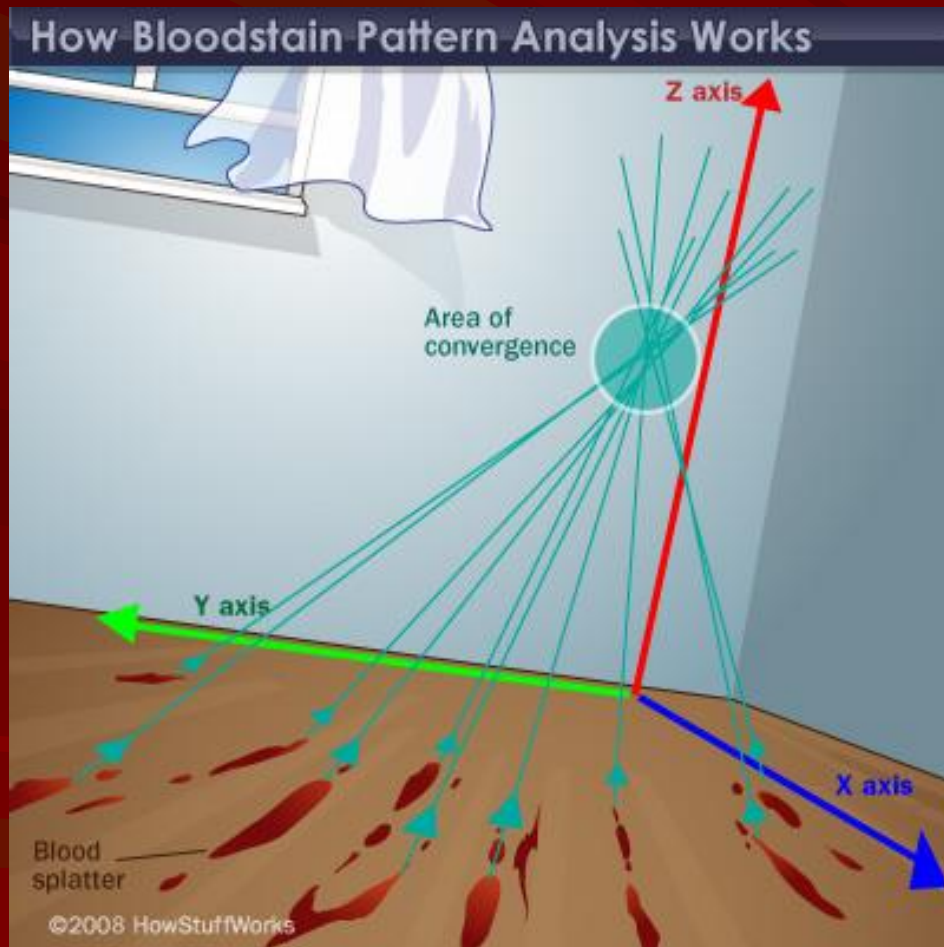


$< 90^\circ$  – more elongated



4. Origin of blood can be determined from convergence of lines from points

# Convergence Zone

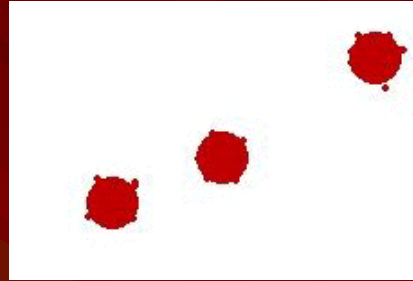


# Investigating Spatter Cont.

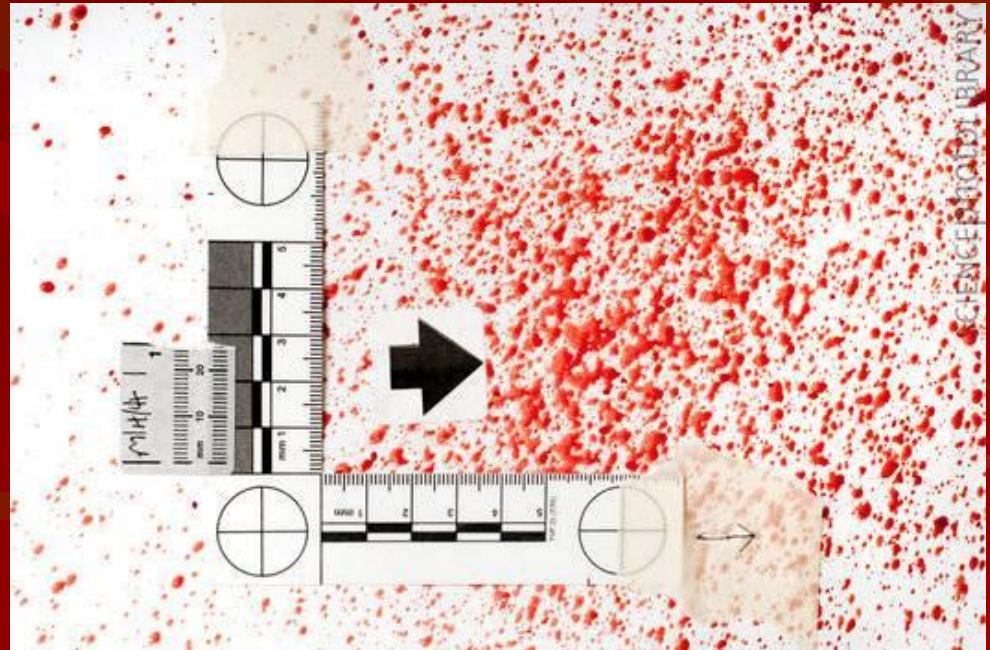
5. Velocity of blood spatter:
  - Low velocity – due to gravity
  - Medium velocity – from blunt objects or aspirated blood
  - High velocity – mist-like, usually the result of a bullet

# Blood Spatter

■ Low velocity –

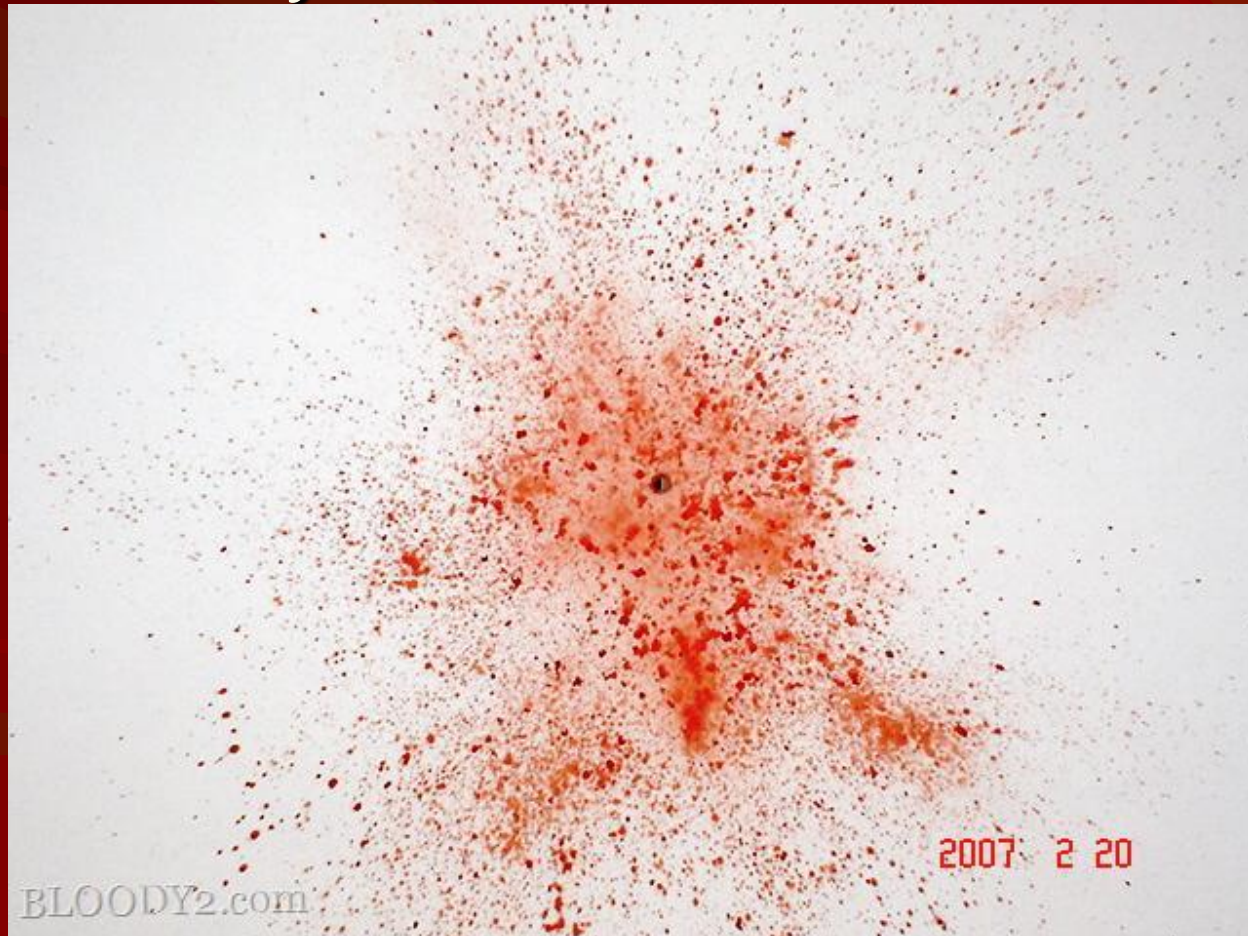


■ Medium velocity -



# Blood Spatter

- High velocity -





# Collection of Blood Evidence

- All human evidence (blood, semen, saliva, etc) must be packaged in paper (plastic can cause mold → destruction of DNA)
- Samples must be refrigerated
- Each piece of evidence must be packaged separately
- Do not fold clothing
- Label all containers with name, date, & sample location

# Blood Spatter Patterns



Elongated Drops - Movement



Cast Off

# Blood Spatter Patterns

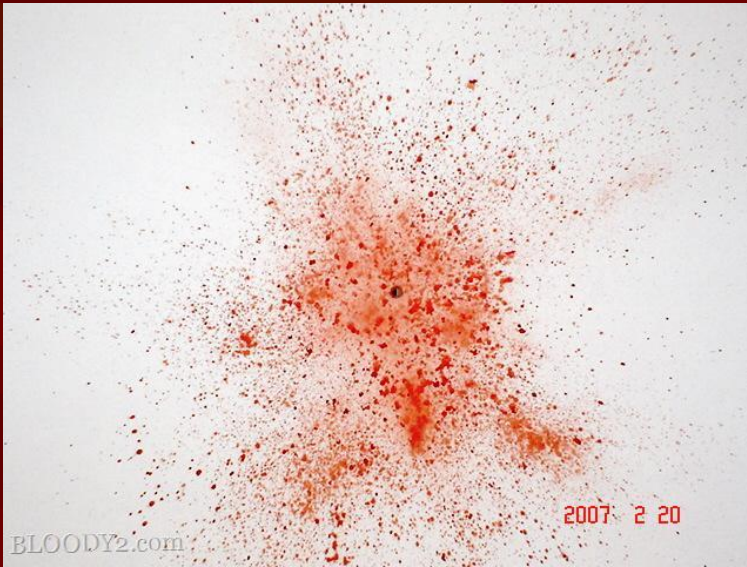


Void in Spatter



Contact Stain

# Blood Spatter Patterns



Small Spots – High Velocity



Large Spots – Low Velocity