

Key: Study Guide: Medicolegal Death

1. Death is a process not a single moment in time. Also, methods of determining the post mortem interval (PMI) are not that accurate.
2. - manner of death: the circumstances that led to death
 - 3. - 5 manners of death
 - natural - such as age or disease
 - accidental - such as a car accident or falling
 - suicide
 - homicide
 - undetermined
 - cause of death : the reason someone dies, such as physical injury, bludgeoning, shooting, burning, drowning, strangulation, suffocation, etc.
 - mechanism of death : the specific body change that brought about death, such as exsanguination (blood loss), loss of brain function, pulmonary arrest (heart stops beating), etc.
4. Determining the manner of death is important to forensics because investigators need to know if another person caused the victim's death.
5. 5 stages of death
 - initial / fresh decay (0-3 days)
 - no odor
 - cells begin breaking down due to autolysis
 - abdomen turns blue-green after 3 days
 - putrefaction (4-10 days)
 - body begins to smell, is bloated & swollen
 - skin is marble-colored & leaking fluids
 - black putrefaction (active decay) -(10-20 days)
 - strong odor
 - flesh has turned black, skin ruptured & leaking fluids, gases escape
 - butyric fermentation (advanced decay) (20-50 days)
 - odor starts to dissipate
 - body starts drying out
 - dry decay (50+ days)
 - no odor
 - skeletal remains & dry skin (leathery)

FIVE STAR. ★★★★☆

6. Determining time of death (PMI) is important because it can place or remove suspects from the crime scene when the person was killed

- 7.
- Livor mortis - blood settling makes skin appear purple on lower areas of the body
 - starts 2 hours after death.
 - permanent after 8 hours
 - Algor mortis - body cooling
 - Rigor mortis - stiffness of body
 - stomach contents
 - Potassium levels in the eyes

8. See #7

9. See #7

10. Once livor mortis starts, the areas of the body closest to the ground turn purple. If 8 hours passes & livor mortis is permanent & someone moves the body to a different position, the coloring will not move

11. see #7. Also between 2-8 hours, if you press on the purpled skin, it will leave a temporary white mark

12. Rigor mortis is a temporary stiffness in the body's muscles

13. Rigor starts in the head & neck 1-4 hours after death.

At ~8 hours, body is rigid from head to legs

At ~12 hours, body is completely rigid

At ~24 hours, jaw is limp while everything else is rigid

At ~30-32 hours, everything is relaxed, but legs are still stiff

At ~36 hours, the entire body is relaxed again.

14a. higher temps cause rigor to occur earlier, lower temps cause it to occur later

b. see #14a

c. the more fat a body has the longer it takes for rigor to occur

d. same w/ clothing ↑

- 14 e. having a fever causes rigor to occur faster
 f. the body parts being exercised will go into rigor 1st
 g. sun exposure heats the body, accelerating rigor

15. See #13

16. Algor mortis is the cooling of the body to ambient temp. after death

17.a. & b.

98.6°F - body temp.

If answer is
LESS THAN
48.8°C, do
this:

divide answer
by 34.88°C/hr

If answer
is EXACTLY
48.8°F:

the person
died 12 hours
ago

If answer is
more than 48.8°F,
start over:

81.8°F - body temp

Divide answer by
33.4°F/hr

Add 12 hours

$$18 \cdot a. 98.6^\circ F - 74.3^\circ F = 24.3^\circ F$$

$$\frac{24.3^\circ F}{34.88^\circ F/hr} = .70 \text{ hours}$$

$$b. 98.6^\circ F - 54.0^\circ F = 44.6^\circ F$$

$$\frac{44.6^\circ F}{34.88^\circ F/hr} = 1.3 \text{ hours}$$

oops

18 a. temp.
(ambient)

b. clothing

c. exercise

d. air circulation

event
cold
warm
naked
clothed
hot from exercise
no exercise
none
windy

effect
accelerate
slow down
accelerate
slow down
slow down
normal
slow down
accelerate

19. See # 17

20. babies : ~450 bones
adults : ~ 206 bones

21. see virtual skeleton identification power point
22
23

24. blowfly life cycle

