Warm up

- Manner of Death – Accidental
- Cause of Death – Food poisoning/water contamination
- Mechanism of Death – Kidney Failure

Read Articles:
- How would you define manner, cause and mechanism.
- Is there any room for error? Why/why not?
Mr. Schisel

About Death
Manner of Death

One of four (sometimes five) means by which someone dies.

- Natural
- Accidental
- Suicidal
- Homicidal
- Undetermined

Which do you suppose is the most common?
The immediate reason for a person’s death

- Blood loss
- Heart attack
- Suffocation
- Food poisoning/water contamination
The specific body failure that leads to death
  - Kidney Failure
  - Heart failure
Death defined

- The cessation, or end, of life
  - Irreversible cessation of circulation of blood
  - Cessation of brain activity
What happens to a body next?

- Autolysis
  - The spontaneous breakdown of cells as they self digest
  - When enough cells have broken down, life cannot be restored
  - When the cell membrane dissolves it allows enzymes to spill out and begin breaking down surrounding tissue

Signs of autolysis
Livor Mortis

- Postmortem lividity, roughly means death color.
  - Lividity: pooling of blood in the body
- When the heart stops pumping blood it begins to pool with gravity.
- As the red blood cells break down they spill out hemoglobin turning the effected areas a deep purple.
Example
Livor Mortis Cont.

- Like all process this takes time
- Begins around two hours after death
- Becomes permanent after eight hours
- If the body is between 2-8 hours the color will disappear if the skin is pressed
  - Other than time of death what else could this tell us?
  - What environmental conditions would have an effect on this.
Rigor Mortis

- Postmortem rigidity, roughly means death stiffness.
- Flexing and relaxing muscles is the muscle fibers sliding back and forth.
- When this happens calcium is released, in living muscle that calcium is removed, requiring energy.
- Without $O_2$ flow cells cannot produce energy to remove calcium causing perpetual contraction of muscles.
Example
Begins within two hours of death
 Starts in the head and works its way down to the legs
 After twelve hours the body will be in its most rigid state
 Rigidity is usually gone after thirty-six hours

What could have an effect on these times?
Environmental effects:
- Sun exposure
- Ambient temp.

The person:
- Weight
- Clothing
- Illness
- Level of physical activity
Roughly means death heat.

While alive, what temperature are we?

98.6°F or 37.0°C

Liver is used to take temperature.

Approx. one hour after death the body cools at a rate of 0.78°C (1.4°F) per hour

After that at a rate of 0.39°C (0.7°F) per hour until it reaches the temp. of the environment.

- What could have an effect on the reliability of this?
- How accurate do you think this is?