

OTHER FORENSIC SCIENCE SERVICES PART2



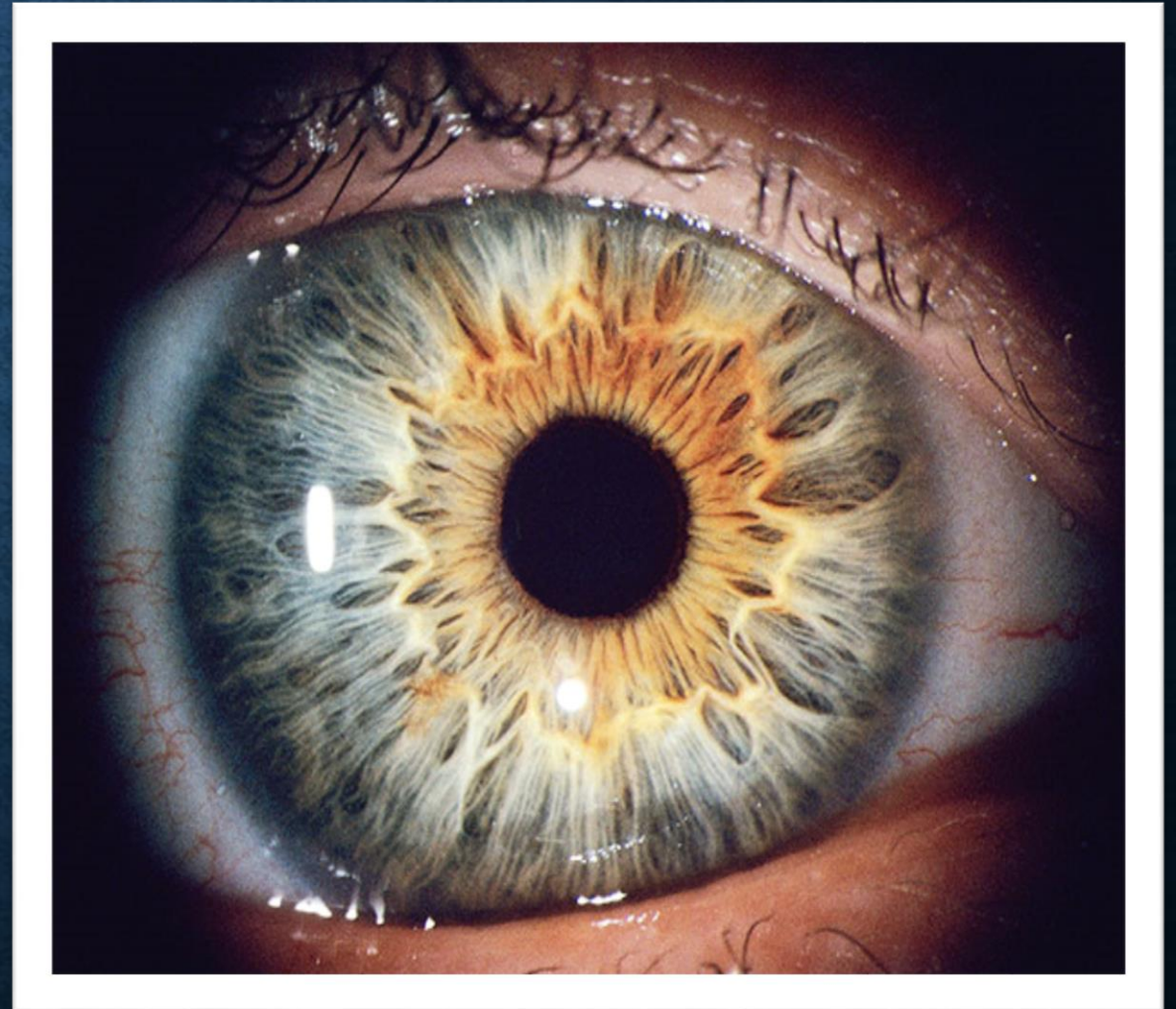
Forensic Science

School Year 2023-2024

jwardisiani@pths209.org

OTHER APPROACHES FOR DETERMINING TIME OF DEATH

- Potassium Levels in the ocular fluid of the Vitreous Humor.
- Cells inside the eye at the time of death begin releasing Potassium into the “Eyes” fluid. The effect is the increasing cloudiness of the eye.
- Therefore the more cloudy the eye...the longer the victim has been dead!



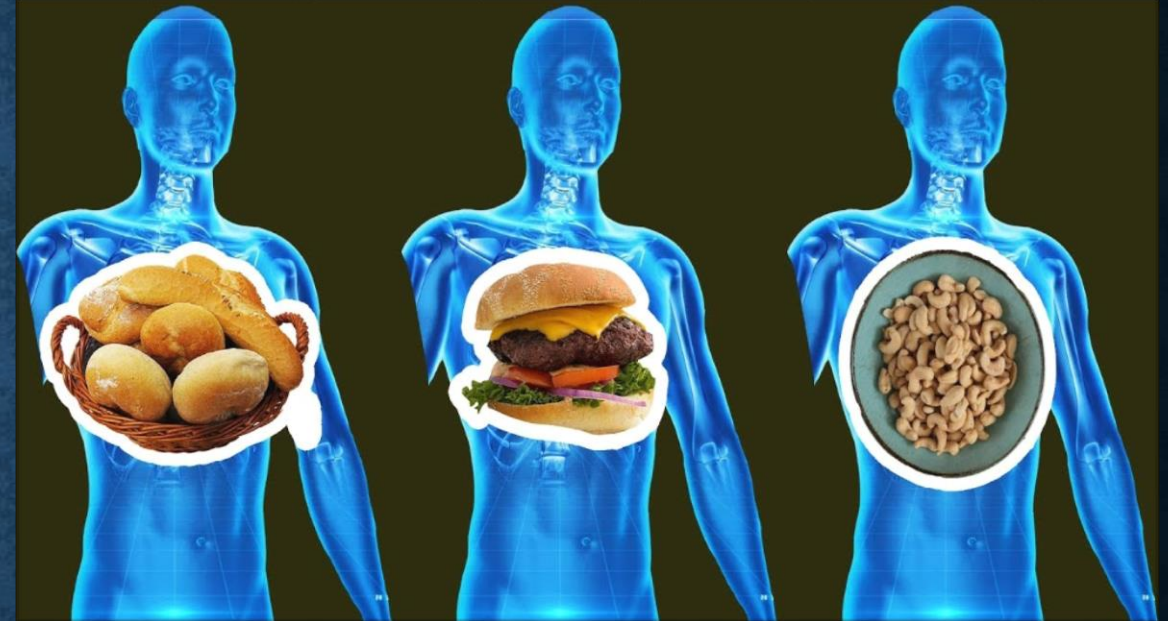


OTHER FACTORS DURING AN AUTOPSY TO HELP CALCULATE TIME OF DEATH

Minutes

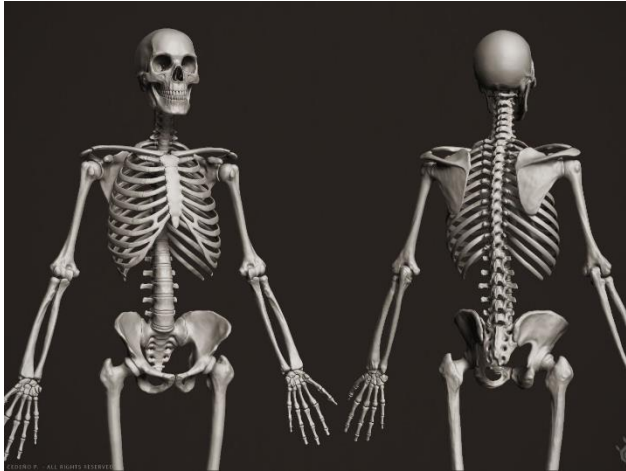
Hours

Days?



- The amount of food in the stomach!
- Typically it takes ~3 hours for a full meal to pass from your stomach into the small intestine.
- Medical Examiners must perform an autopsy in the case of suspicious or questionable deaths.
- The cause of death is not always what it appears at first glance!

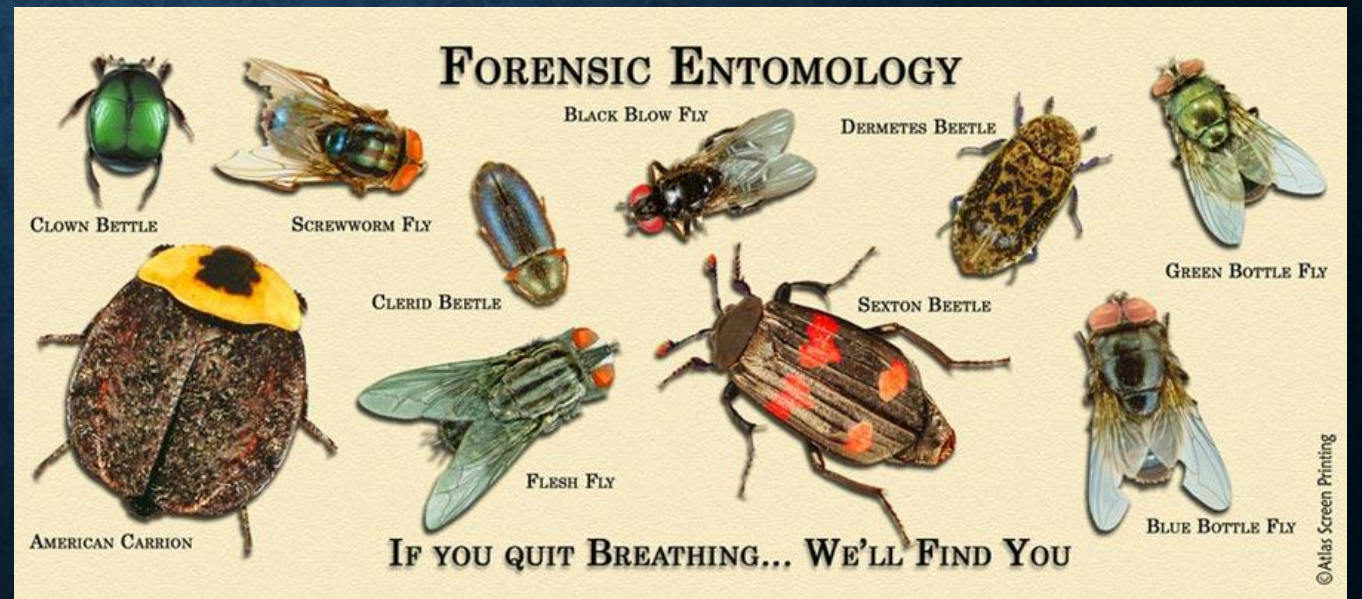
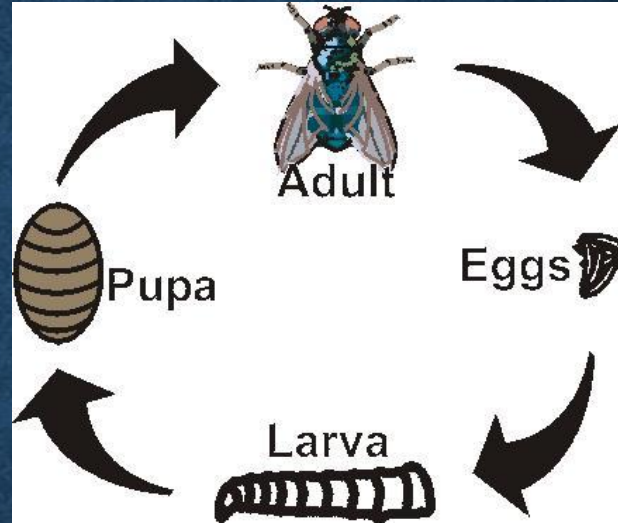
FORENSIC ANTHROPOLOGY



- Forensic Anthropology is a specialty that is concerned with the identification and examination of human skeletons.
- Bones can take decades to centuries to decompose...a lot slower than skin.
- Skeletal examination can reveal the gender, age, race, skeletal injuries.
- The Forensic Anthropologist can through scientific findings with the assistance of computers create 3-D images of the bones and perhaps a reconstruction of the face.
- Natural Disasters / Tragedy

FORENSIC ENTOMOLOGY

- The study of insects and their relation to a criminal investigation is known as Forensic Entomology.
- The techniques can be used to determine the cause of death, when circumstances around the death are unknown.
- The insect of choice is the “Blow Fly”, which characteristically lays its eggs in the dead flesh...The entomological aspect is a simple progression from egg...to adult fly, eating the flesh along the way!
- The knowledge of the Flies life cycle can help identify the time of death for the victim.



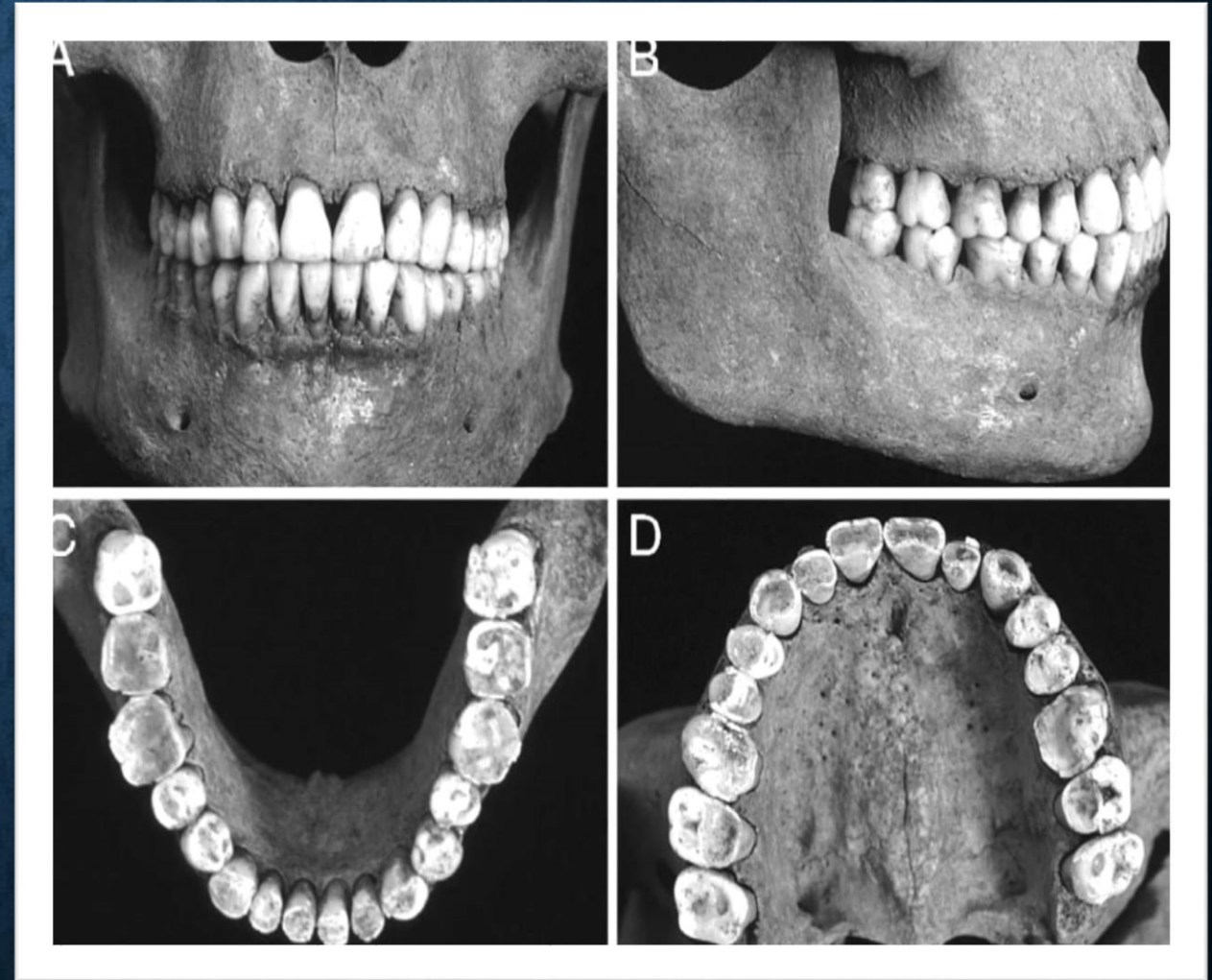


FORENSIC PSYCHIATRY

- Forensic Psychiatry is a specialized area in which the relationship between human behavior and legal proceedings is examined.
- For Civil Cases, Forensic Psychiatrists normally determine whether people are competent preparing wills, settling property, or refusing Medical Treatment. In Criminal Cases they determine whether people are competent for trial
- Also, help establish criminal profiling of a suspect.

FORENSIC ODONTOLOGY

- Provide information about identification of victims when the body is left in a unrecognizable state.
- Teeth are composed of enamel...the hardest surface in the body, so it will outlast other more fragile tissues and organs.
- The use of dental X-rays along with records can help identify the remains of victims.
- Another application is “Bite Mark Analysis”.



FORENSIC ENGINEERING



- Forensic Engineers are concerned with failure analysis, accident reconstruction, and cause and origins of fires and explosions.
- These scientists answer the “BIG Questions”.
- How did the accident or structural failure occur?
- Were the parties involved responsible?
- Accident scenes are examined, photographs are reviewed, and any mechanical objects involved are inspected.

THANK YOU FOR YOUR ATTENTION

- I hope you took notes...you will see this on your up-coming TEST.
- Please refer to your Plan of The Week for your next assignment.

