

Problem 8.3.2 Murder Mystery: Autopsy

Introduction

In the previous activity you began an investigation of a murder at a local hotel. The elevator operator was found dead with an apparent stab wound. The death was not witnessed by anyone other than the murderer, and the body was found several hours after the time of death.

This type of suspicious death is investigated through an autopsy. An autopsy is an examination of the body after death used to determine the cause of death. A medical examiner or forensic pathologist performs the autopsy at the request of the coroner and usually completes the exam within 48 hours after the death of a person. During an autopsy each organ is removed and examined, tissue samples are taken for later testing, and any injuries are documented. Autopsies generally test for three abnormalities including infections, changes in body tissue and organs, and the presence of chemicals such as drugs or poisons.

In this activity you will complete a computer simulation of an autopsy and read a portion of the autopsy report for the hotel operator murder victim to determine the cause of death.

Equipment

- Laboratory Journal
- Pencil
- Computer with Internet access
- Murder Mystery Case Report

Procedure

Part 1 Virtual Autopsy

To investigate the procedures involved in a postmortem exam, complete the virtual autopsy at the Australian Museum website.

1. Visit the Interactive Autopsy website at:
<http://australianmuseum.net.au/interactive-tools/autopsy/>
2. This interactive simulation contains detailed information about what happens in an autopsy. Follow the instructions and answer the questions below as you complete the activity.
3. Click Start to begin.
4. **Step 1 – External Examination**

What does the forensic pathologist inspect and record during the external examination?

5. Click Begin Examination to continue.
6. Describe what the forensic pathologist will look for or test for each area of the body during the external examination.
 - Chest

 - Fingers

 - Shoulders

 - Legs

 - Elbows
7. Click Next Step to investigate Step 2 – Internal Examination.
8. Describe the incision the pathologist makes to expose the inside of the body.

9. Click Next Step and roll your mouse over each organ to find out what the organs are.
10. Click Next Step and read about the Rokitansky method of organ removal.
11. Click Next Step, remove all of the organs with your mouse, and place them on the sink area below. When you are done, click Next Step.
12. Read about brain removal, and then click Next Step.
13. Record the average weights for the organs below in an adult human body:
 - Heart
 - Lungs
 - Kidneys
 - Brain
 - Liver

14. Click Next Step to replace the organs.
15. Click Next Step twice to close the body.

16. Answer conclusion questions 1-2.

Conclusion

1. During the internal examination, the pathologist drains the intestines, removes any undigested food and feces, and examines the contents of the stomach. What clues could this examination give the pathologist?
2. What are the three abnormalities that autopsies generally test for?