

Pathology & Autopsy

HASPI Medical Anatomy & Physiology 02b
Video & Internet Activity

Background

Pathology

Pathology is the study of disease. This is a very broad field with many specializations that examine cells, tissues, organs, fluids, and organ systems to diagnose the cause of disease. Clinical pathology tends to focus on what is occurring at the cellular and tissue levels, while anatomical pathology focuses on the entire organ or organ system. A pathologist is a board-certified physician and may work in a clinical setting or in a morgue performing autopsies.

The field of pathology that focuses on investigating cause of death is called forensic pathology. A forensic pathologist may be better known as a coroner or medical examiner, and must be well informed in both medicine and law. A forensic pathologist is responsible for:

- Determining the mechanism of death – what did the person physiologically die from?
- Determining the manner of death – what event caused the death?
- Trace evidence – collect any evidence or details that may help in an investigation
- Identifying wounds and injuries – document all wounds and identifying features
- Taking and examining tissue and fluid samples
- Serving as an expert witness in court

Autopsy

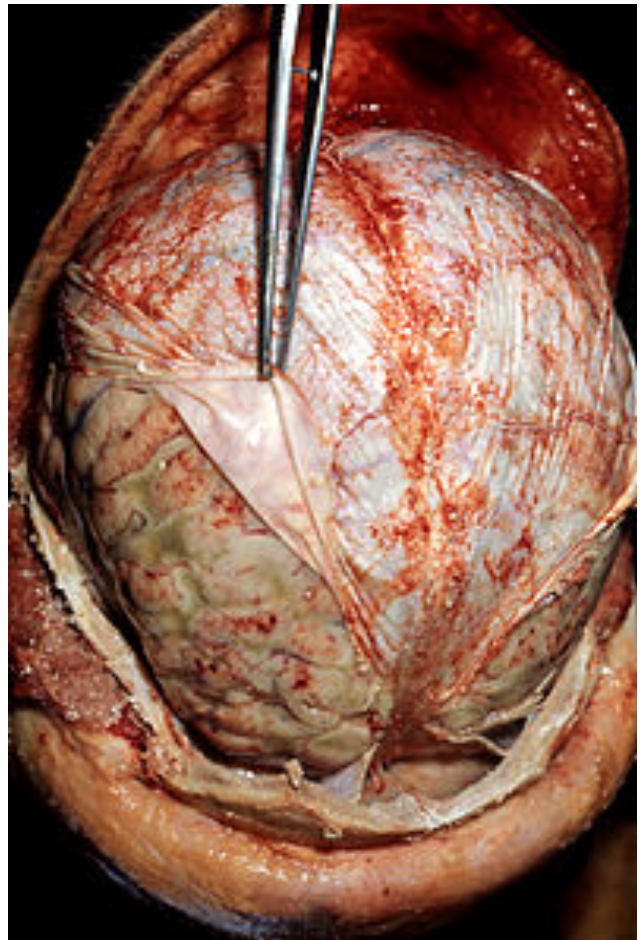
The examination of a corpse by a pathologist to determine cause of death is called an autopsy. An autopsy is an organized surgical procedure that involves a thorough exam of the body organs, injuries, and fluids. An autopsy may be performed for medical or legal reasons. A medical autopsy may be performed when the cause of death is sudden or unknown. A legal autopsy may be performed when the cause of death is suspicious. The following video activity will detail the usefulness of autopsy in the legal field.

Rothenberg, K. 2008. *The Autopsy Through History*. In Ayn Embar-seddon, Allan D. Pass (eds.). *Forensic Science*.

Monet, Gaby (Producer), & Ginsburg, Arthur (Director). 2005. *The Autopsy Files* [Motion picture]. United States: Home Box Office Inc., HBO Video.

Name(s): _____

Period: _____ Date: _____



http://upload.wikimedia.org/wikipedia/commons/thumb/ff/d/Streptococcus_pneumoniae_meningitis_gross_pathology_33_lores.jpg/200px-Streptococcus_pneumoniae_meningitis_gross_pathology_33_lores.jpg

Part A. Autopsy: Confessions of a Medical Examiner (60 min)

Watch the video and answer the following questions.

Question	Answer
Where and when was the office of the first forensic pathologist founded?	
Joan Bent Case	
Why did the police suspect that Joan Bent's husband may have been her murderer?	
What important information did the intact potatoes found in Joan Bent's stomach provide?	
Why did the body being found in cold weather help this investigation?	
Jane Doe Case	
What was interesting about the stomach contents? How did it help them identify the victim?	
The Shark Case	
How was the victim's arm able to lead to finding the victim's identity and the murderers?	
Maybeth Tinning Case	
How many children did the Tinning family lose? What were the causes of death?	
Why did Dr. Baden believe the children did not die of genetic disease?	
What does the blue baby indicate?	
What was the outcome of this case? Why did she murder her children?	

The Case of a Probable Suicide	
How many stories did the man fall? What did police believe happened?	
How was the medical examiner able to determine that it was not suicide?	
The Death of Billy Martin	
How did the medical examiner prove who was driving the car?	
Donna Payant Case	
Where was her body found?	
How was Dr. Baden able to connect Donna Payant's murder to Marylee Wilson's murder? Who was the murderer?	
Attica Prison Case	
How did the prison officials say the hostages were killed?	
How were the hostages actually murdered?	
Latoya Thomas Case	
How did Muriel Thomas die?	
What made police arrest Latoya Thomas for the murder?	
How did the medical examiner determine that Latoya Thomas was not the murderer?	

Part B. Autopsy 2: Voices from the Dead (60 min)

Watch the video and answer the following questions.

Question	Answer
The Unidentified Torso	
What did fishermen find in the Mississippi River?	
What part of the body was the torso?	
How did they know the torso had borne a child?	
How was the body dismembered?	
Why was this portion of the torso so difficult to identify?	
How did Dr. Snow “deflesh” the torso? Why did he do this?	
How was the age and height of the victim determined?	
Who did the torso belong to and who murdered her?	
Maggots in Evidence	
How was the body found?	
What was found by the toxicologist when the maggots were blended and tested?	
How did the victim die?	
The Good Doctor	
How did Mark Cavaness die?	
How did Sean Cavaness die?	
How did the medical examiner’s findings determine that Sean Cavaness had not shot himself?	
Who murdered the Cavaness brothers? Why?	

The Jellyfish Case	
What did the finders of the bones originally believe the bones were from?	
What was used to cut through the bones of the body?	
What did the “jellyfish” end up being? How were they used to identify the victim?	
The Angel of Death	
Why were 10 bodies in Cincinnati ordered to be resumed?	
What did the medical examiner find in John Powell’s autopsy?	
How does cyanide affect the body?	
Why was Donald Harvey suspected? How many patients did Harvey confess to killing?	
The Ron Settles Case	
What did the original medical examiner of Ron Settles report as cause of death?	
What did Dr. Baden’s second medical examination determine?	
A Mother’s Instinct	
What was the original cause of death of Dennis Jurgens?	
What was found from the second medical examination?	
Why was the damage to the bowel that caused death caused by severe trauma?	
The Fun House Dummy	
What was the body covered with? How were scientists able to determine the identity of the body?	

Part C. Autopsy Analysis

Now is your chance to perform a virtual autopsy and determine the cause of death. Go to the following website:

<http://www.le.ac.uk/pathology/teach/va/titlpag1.html>

You will have the opportunity to review a virtual autopsy case. Choose from cases 1-8 on the left hand side. Make note of any important information that would lead to a diagnosis below.

Case History

Case Number: _____

Presentation:

History:

Examination:

Progression:

Interactive Cadaver (on left hand side)

Respiratory System

Gastrointestinal System

Genito-Urinary System

Musculo-Skeletal System

Central Nervous System

Endocrine System

Cardiovascular System

Reticulo-Endothelial System

General

Hypothesize the "Cause of Death":

Click on the "Cause of Death" at the bottom of the page. What was the cause of death?