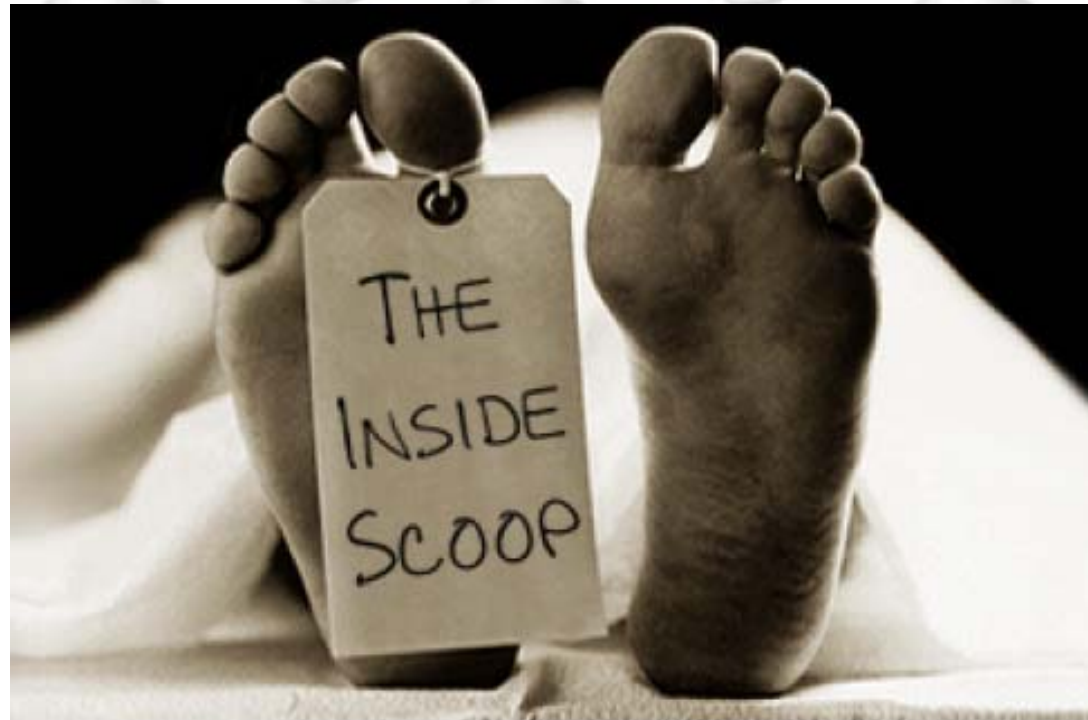


# FORENSIC PATHOLOGY



# CORONER vs ME

**Coroner**: *elected public official*

CLARK COUNTY  
**CORONER** *Medicolegal Investigations*

1° Duty: investigate deaths

Does **not** have to be a physician

*(Amnt of training? Few hrs – few wks)*

cheaper short run/ expensive long run

**Medical Examiner**: *a licensed physician*

Determine cause and manner of death

Brings medical expertise to the evaluation











Clark County Office  
of the  
Coroner / Medical Examiner  
Office Hours  
Monday - Friday  
8:00 AM - 4:30 PM  
Excluding Weekends and Holidays  
All other hours contact (702) 455-3210 for assistance.



# Path vs For Path

**Pathologist**: a licensed physician

Deal w/ diagnosis of disease & causes of death by exam of bodily fluids & cell/tissue samples

**Forensic Path**: specialize in exam of persons who die suddnly, unexpctdly, or violntly  
Determine cause & manner of death



# Duties of the “Death Doc”

- Determine **cause & manner** of death
- Determine ID
- Determine **time** of death & injury
- Collect evid from body
- Document injuries or **lack** of them
- Deduce how injuries happened
- Document any **natural** disease present
- Determine/exclude other contributory factors
- Provide expert testimony if case goes to trial

# How to Become a For Path

- Obtain a B.S. (4-5 yrs)
- Obtain a M.D. or D.O. (~4 yrs)
- After med school: 4-5 yrs specializing

3 yrs Anatomic  
Pathology  
1 yr Forensic  
Pathology

Anatomic Pathology  
Clinical Pathology  
Forensic Pathology  
(5yrs)

Anatomic Pathology  
(2yrs)  
Forensic Pathology  
(1yr)  
Neuropathology or  
Toxicology (1yr)

= ~ 14 yrs of college/training

# Which Deaths Get Investigated?

- Violent deaths
- Suspicious deaths
- Sudden & unexpected deaths
- Deaths w/o a physician in attendance
- Deaths in an institution



# What is DEATH?

**DEATH**: *(simple def)* the perm cessation of cardiac and/or respiratory function  
*b/c of modern technology, the concept of **brain death** has been created*

Two of the most imprtnt fncns of the ME is to detrmn the **cause** and **manner of death**

# The Uniform Determination of Death Act

The National Conference of Commissioners on Uniform State Laws in 1980 formulated the **Uniform Determination of Death Act (UDDA)**.

It states that: "An individual who has sustained either

1) irreversible cessation of circulatory and respiratory functions, or

2) irreversible cessation of all functions of the entire brain, including the brain stem is dead

A determination of death must be made in accordance with accepted medical standards."

This definition was approved by the AMA in 1980 & by the American Bar Association in 1981. Today all 50 states & D.C. follow the UDDA as a legal standard of death.



# CAUSE OF DEATH

any injury or disease that **produces** a physiological derangement in the body that **results** in the death of the person

*ex. gunshot wound to the head  
stab wound to the chest  
adenocarcinoma of the lung  
coronary atherosclerosis*

# **MECHANISM OF DEATH**

The **physiological derangement** produced by the cause of death that **results** in death

ex. *hemorrhage*  
*septicemia*  
*cardiac arrhythmia*

A mech of death can be produced by multiple causes of death & vice versa



# Common Errors in MECH

Often, the cause of death is listed as “cardiac arrest” or “cardiopulmonary arrest”...

-- this means that the heart & lungs stopped  
*(but when anyone dies, the heart & lungs stop)*

**These are not causes nor mech of death!**

# MANNER OF DEATH

**HOW** the cause of death came about

- natural
- homicide
- suicide
- accidental
- undetermined

**\*\*** *this is an **opinion** based on the known facts: circumstances surrounding death, autopsy results, etc*



# TIEING IT TOGETHER

A person can die of a massive hemorrhage (*mech of death*) due to a gunshot wound to the heart (*cause of death*), with the *manner of death* being homicide (someone shot them), suicide (they shot themselves), accident (the weapon fell & discharged), or undetermined (no clue what happened)

## REPORT OF AUTOPSY

Name: SCHIAVO, Theresa  
Date of Death: March 31, 2005

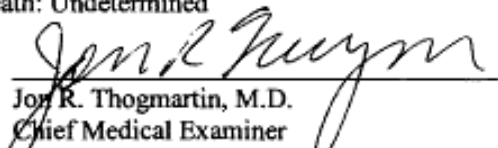
Case #5050439 Age: 41 Yrs. Race: White Sex: Female  
Date of Autopsy: April 01, 2005 at: 0840 hrs

### AUTOPSY FINDINGS

1. Anoxic-ischemic encephalopathy (see attached neuropathology report)
  - a. Extremity muscle atrophy and contractures
  - b. Bilateral bronchopneumonia
  - c. Osteoporosis (with T11 endplate fracture)
  - d. Urolithiasis
  - e. Renal scar (right)
  - f. Heterotopic ossification
  - g. Degenerative joint changes
  - h. Glossal, pharyngeal, and neck muscle atrophy
  - i. Healing gastrostomy
  - j. Implanted electrical stimulator
  - k. Healed decubitus ulcer(s) and remote left fifth toe amputation
2. Dehydration
  - a. Vitreous chemistry: sodium 207 mmol/L, chloride 184 mmol/L, urea nitrogen 133 mg/dL, creatinine 1.3 mg/dL, glucose 57 mg/L
  - b. Dry skin and body cavities
  - c. Renal tubular necrosis
3. Toxicology
  - a. Heart blood: acetaminophen 8.8 mg/L
  - b. Urine: acetaminophen detected
4. Status post cholecystectomy
5. Hyperostosis frontalis interna
6. Uterine leiomyoma
7. Cardiovascular (see attached cardiovascular pathology report)
  - a. Heart weight 255 grams
  - b. Focal pericardial adhesions
  - c. Cardiac ion channel mutation screening: negative

Cause of Death: Complications of Anoxic Encephalopathy

Manner of Death: Undetermined

  
Jon R. Thogmartin, M.D.  
Chief Medical Examiner

Date: 06/13/05