EOH 466A
The Occupational Environment
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Fall 2008

Introduction

• Syllabus / course outline is online: www.csun.edu/~vchsc00b/ for my home page, and follow link to syllabus for EOH 466A.
• Exams
• Projects
• Problem sets
• Text book
My Background

- BA Biology
- Lab “go-fer”
- Occupational Injury
- MS – Industrial Hygiene (HSPH)
- PhD – Industrial Hygiene (UCLA SPH)
- CSUN teacher since 1990

History of Occupational Health

- Hippocrates (370 BC)
  - aturgists, fullers, tailors, horsemen, farmers
  - Mostly (dusts and fumes)
  - Lead causes colic
- Pliny the Elder (50 A.D.)
  - Asbestos disease in miners
  - Use of bladders for protection
History of Occupational Health

• Agricola (1556)
  - Mine dust
  - Carpathian Mountains
  - Mercury
  - Cold water in mines
  - Dry dust
  - Cave ins
  - Corrosive Dust
  - Recommended ventilation of mines

History of Occupational Health

• Paracelsus (1567)
  - ‘Father of Toxicology’
  - Philippus Theophrastus Aureolus Bombastus von Hohenheim
  - Noted that increased exposure increases damage
  - ‘All substances are poisons. There is none which is not a poison. The right dose differentiates a poison and a remedy.’
History of Occupational Health

Bernardino Ramazzini
- Father of Industrial Medicine’
- First systematic book on occupational disease
- De Morbis Artificum Diatriba (1760)
- Miners of metals, gilders, healers, chemists, potters, tinsmiths, glass workers, mirror makers, painters, blacksmiths, etc.
- In many cases, he recognized a relationship between chemical exposure and disease

History of Occupational Health

Percival Pott
- Occupational cancer among chimney sweeps
- Neglect of hygiene results in scrotal cancer
- Chimney-Sweeps Act of 1788
History of Occupational Health

Benjamin McReady
- "The Effects of Arts, Trades and Professions in the United States in the Production of Disease" (1837)
- Credited with writing the first text on occupational medicine in the United States
- Sociological work, not medical
- Charles Thackrah (England – 1800's)

History of Occupational Disease

- Alice Hamilton
  - "Industrial Poisons in the United States" (1925)
  - "Exploring the Hazardous Trades" (1940)
  - Systematically evaluated many types of business for occupational hazards.
- Video
  - Images of working conditions at turn of century.
  - Watch for workman with 'wrist drop'
History of Occupational Health

• United States Experience
• 1911 – 1914: 35,000 workers killed each year
• 1910: 36,000 workers seriously injured
• Pennsylvania, one county: 10 deaths per week
• Most illnesses were not recognized

History of Occupational Health

• Workers’ Compensation
  – Initially not provided, as employers would claim:
    • Doctrine of contributory negligence
    • Fellow servant rule
    • Assumption of risk
  – These defenses weakened, and pressure grew for reliable compensation: workers compensation laws enacted in 1910’s
History of Occupational Health

• OSHA sets exposure limits to protect workers.
• OSHA can only act on ‘known hazards’
• What happens if toxic effects are not carefully investigated?

History of Occupational Health

• Worker’s compensation varies from state to state
• Compensation can be unreliable and restricted
• Rules for filing a claim include ‘timeliness’. Occupational disease may not be recognized.
• Video: Song of the Canary.