

Occupational Medicine

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Occupational Medicine

- Recognized Specialty For Over 50 Years
- Combines Clinical Skills With Toxicology, Epidemiology, Safety, Rehabilitation, and Business Operations
- "Tightrope Walker" Responsible to Patients, Business, and the Community



Occupational Medicine - History

Bernardini Ramazzini Published the First Edition of *De Morbis Artificum* in 1700. This was the First Systematic Study of Occupational Diseases.

Ramazzini May Have Kicked Things off, but the Modern Practice Of Occupational Medicine was Shaped by Alice Hamilton (1869-1970).

- *Industrial Poisons in the United States* (1925)
- *Industrial Toxicology* (1934)
- *Exploring the Dangerous Trades* (1943)

And Codified by the US Congress and President Nixon

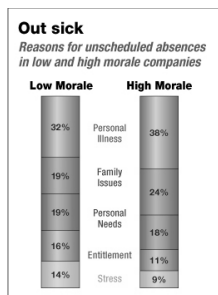
- *Occupational Safety and Health Act of 1970*

Occupational Health Services

- Detecting, Evaluating, and Treating Medical Conditions
- Emergency Response
- Medical Surveillance
- Chronic Disease Management
- Fitness and Wellness
- Work-Life Management
- Disability Management and Accommodation
- Employee Assistance and Advocacy
- Absence Management
- Training
- Consultant to Workers, Managers, Unions, and the Community

Why a Special Practice Model?

- Occupational Diseases are Hard to Distinguish From Ones Unrelated to the Workplace
- Absences from Work Have Multiple Causes (not all are medical)
- Economic Implications of Maintaining a Healthy Workforce are Large





Building the Occupational Health Program

- The Goal is to Enable Employees to Safely Attend Work and Successfully Perform Their Tasks Without Interference from Health Based Issues.
- Consideration Must be Given to Work Processes and How They Impact Employees, Their Contacts, and The Environment.
- If an Employee is Absent, We Facilitate the Receipt of Effective and Efficient Interventions by Employees.
- Set a Goal of Return to Work as Soon as Practicable.

How Do We Know What to Address?

- Remain Vigilant For Activity or Incident Trends, Changes in People, Worksites, or Regulatory Requirements. When All Else Fails - Ask the Workers.
- Evaluate Issues Early.
 - Involve all Stakeholders - Management, Safety, Human Resources, Industrial Hygiene, Engineering, and OH Personnel.
 - Balance the Individual's Rights and Needs With The Rights and Needs of the Employer but Injury and Illness Prevention is Paramount.

Employee Evaluations

- Physical Examinations – Viewed and Purchased as a Commodity, but Need to be So Much More. . .
 - Can The Employee Physically do the Job?
 - Are There Medical Conditions Impacted by the Job's Requirements?
 - Can We Control The Conditions in the Worksite or are They Better Controlled in the Employee?
 - Are There Regulatory Mandates?
 - What are Past Practices by This Employer and in Similar Industries?

What About Absences?

- Absences Happen. An Important Point to Remember is That Even Problem Employees Get Sick.
- The Medical Providers Must Work Within Company Policies, Any Regulatory Requirements, and Applicable Privacy Rules.
- You Must Use Competent and Objective Personnel For Case Evaluation and Absence Management.
- Success Occurs When You Obtain Optimum Intervention for the Individual and Coordinate Their Return With the Worksite.
- Providers are not Through When the Individual Returns to Work, They Should Monitor Outcomes and Prevention Efforts After Full Return To Work.

Example - Firefighters

- A 2007 Harvard Study: Heart Disease Kills More On Duty Firefighters Than Anything Else (45%).
- Epidemiologically, the Majority of On-Duty Heart Disease Deaths in Firefighters are Precipitated by Physical and Toxic Factors.



New England Journal of Medicine 2007;356:1207-15.

Firefighter Heart Disease

Heart Disease Is Less Prevalent in Firefighters than the General Public.
However – This is Work in Adverse Environments, Wearing Cumbersome Equipment, Generating High Levels of Stress, and Involving Exposure to Chemical Toxins that may Aggravate Cardiac Risk.

Comparisons to Off Duty Time and Activities Reveal:

- Firefighters are 12 to 136 times more likely to die of heart disease when putting out a fire.
- Firefighters are 3 to 14 times more likely to die of heart disease while responding to an alarm.
- Firefighters are 2 to 10.5 times more likely to die of heart disease while returning from an alarm.
- Firefighters are 3 to 7 times more likely to die of heart disease during physical training.

What is The Occupational Medicine Response?

- Work With Professional and Volunteer (70%) Fire Departments to Educate Firefighters and The Medical Community About the Special Issues Involving Firefighters and Cardiac Disease.

Specifically – Work to Implement:

- Wellness and fitness programs for firefighters and their families to reduce heart disease risk factors
- Encourage adoption of a requirement for firefighters to undergo entrance and annual medical examinations by a provider well-versed in the requirements of firefighting
- Encourage implementation of an annual physical performance test for all firefighters
- A general understanding that, if heart disease is diagnosed in a firefighter, a very open and careful discussion must be undertaken in advising this person whether it is safe to return to duty

After all, they work to save our lives. Shouldn't we work to save theirs?

NFPA (2003). NFPA 1582: Standard on comprehensive occupational medical program for fire departments. Quincy, MA: National Fire Protection Association.
NFPA (2006). NFPA 1550: Standard on health-related fitness programs for fire fighters. Quincy, MA: National Fire Protection Association.

Questions?