

# Introduction to Occupational Health Hazards

Ramin Mehrdad

Physicians working in the field of occupational medicine need to be aware of occupational health hazards and diseases to better practice and prevent occupational-related diseases and injuries. Bentham Science Publishers has recently published an eBook, *Introduction to Occupational Health Hazards*, edited by Farhana Zahir. This book includes six chapters. Chapter 1 provides a brief overview of occupational hazards at work and their related occupational diseases. By reading the introduction, we learn about history, definition and importance of occupational diseases. The occupational diseases are then classified into six groups; diseases caused by biological, chemical, physical, ergonomic, and psychological agents, and accidents. The authors then explain the most common and most important causes of diseases for each group. Considering the extent of occupational exposures and diseases, this chapter could achieve its goal to provide the main idea to readers to a large extent.

Chapter 2 entitled “Occupational Hazards as Neurological Disorders” explains the most important occupational hazards (eg, pesticides, industrial chemicals and heavy metals, radiation, and job stress) that have adverse neurologic effects. At the end of this chapter, there is a very useful paragraph on the prevention and control of this group of hazards.

Chapter 3 focuses on occupational cancer. Authors begin with importance and history of occupational cancer. They have

prepared a comprehensive discussion on the mechanism, incidence, prevalence, classification, etc, of occupational cancers. In this chapter, we can learn about the most important and most prevalent workplace chemical, physical, and biologic agents that may cause occupational cancer. I believe that the title of this chapter “Cancer as an Occupational Hazard” is a little bit confusing and that “Cancer as an Occupational Disease” would have been a better choice.

Chapter 4 entitled “Occupational Health Hazards to Medical and Paramedical Staff,” tells us about the most common hazards and diseases among health care providers. More than two-thirds of this chapter devote to biologic hazards and infectious diseases, considering the considerable importance of this group of hazards among health care workers. The most common chemical, physical, ergonomic, and psychologic hazards related to health care workers' workplace are also listed in this chapter. “Preventive Measures and Simple Practices for Prevention of Diseases” are two very useful topics mentioned at the end of this chapter.

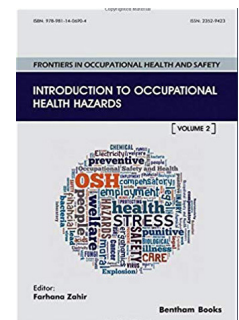
Chapter 5 focuses on biosafety, which is a very important issue for laboratory workers. In this chapter we learn about the most common and most important biological hazards at work. Related infectious diseases, fundamentals of biosafety and new areas in the field are also presented.

Chapter 6 explains stress at work as an increasing occupational hazard at work.

To review this article online, scan this QR code with your Smartphone



Center for Research on Occupational Diseases, Tehran University of Medical Sciences, Tehran, Iran



Cite this article as: Mehrdad R. Frontiers in occupational health and safety, introduction to occupational health hazards. *Int J Occup Environ Med* 2020;11:59-60. doi: 10.15171/ijoem.2020.1889

Correspondence to  
Ramin Mehrdad, MD,  
Professor of Occupational  
Medicine, Center for  
Research on Occupational  
Diseases, Tehran  
University of Medical  
Sciences, Tehran, Iran  
E-mail: mehrdadr@  
tums.ac.ir

Received: Nov 20, 2019  
Accepted: Dec 25, 2019

Theoretical models, mechanisms, consequences, and outcomes of stress are reviewed.

In summary, this book provides important points about occupational hazards at work, neurological disorders, occupational

cancer, health care workers, biosafety, and stress at work. I recommend this book for physicians and other occupational health staff and all those who are interested in the field of occupational health.

### **Editorial Freedom at *The IJOEM***

*The IJOEM* is an international peer-reviewed journal which will publish articles relevant to epidemiology, prevention, diagnosis, and management of occupational and environmental diseases. It will also cover work-related injury and illness, accident and illness prevention, health promotion, health education, the establishment and implementation of health and safety standards, monitoring of the work environment, and the management of recognized hazards. *The IJOEM* adheres to the World Association of Medical Editors (WAME) Policy on “The Relationship between Journal Editors-in-Chief and Owners” available at [www.wame.org/resources/policies#independence](http://www.wame.org/resources/policies#independence). More specifically, the Editor-in-Chief has editorial independence and as such has full authority over the journal's editorial content including how and when information is published. Editorial decisions are based solely on the validity of the work and its importance to readers, not on the policies or commercial interests of the owner.

*The IJOEM* is the official journal of the National Iranian Oil Company (NIOC) Health Organization. The NIOC Health Organization—established as an independent entity—provides health and medical services to the population, including to NIOC employees and their families. Neither the NIOC nor the NIOC Health Organization interferes in the evaluation, selection or editing of individual articles, either directly or by creating an environment in which editorial decisions are strongly influenced.