

OCCUPATIONAL RESPIRATORY DISEASES

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FOREWORD

Section 112 of the Black Lung Benefits Reform Act of 1977 mandated the Secretary of Labor, in cooperation with the National Institute for Occupational Safety and Health (NIOSH), to conduct a comprehensive study of all occupational respiratory diseases. It was suggested by the Senate amendment that the report be conducted in three phases: 1) Disease definition, etiology, and pathology; 2) Assessment of the adequacy of current workers' compensation programs; and 3) The status and adequacy of Federal health and safety laws and regulations relating to the industries with which such diseases are associated. The NIOSH contribution to this effort has focused on the first phase of the overall study and was facilitated by an interagency agreement with the Department of Labor.

The first part of this report delineates the methods used to define and study occupational respiratory diseases and addresses a host of broad topics such as assessment of chest X-rays, pulmonary function data, and lung impairment. Although these reviews are themselves valuable in understanding occupational lung diseases, their principal value is in allowing the reader to more fully understand the second part of this Report which deals with specific classes of these diseases—their definition, epidemiology, diagnosis, and treatment.

In compiling this report, we have been fortunate in having the cooperation and assistance of the Nations' experts on these various diseases. We have profited by the availability of a wealth of environmental data from the National Occupational Hazard Survey and other NIOSH epidemiological studies. We have also received strong support from several divisions within NIOSH.

It is clear from this report that occupational respiratory diseases are a potential threat across a broad range of industrial sectors. These diseases may be acute, but are often chronic. As a result they constitute the most important class of health effects arising from work place exposure. This report is published with the hope that it will contribute to our understanding of these diseases, their etiology, their diagnosis, and especially to their prevention.

James A. Merchant, M.D., Dr. P.H.
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September 1981

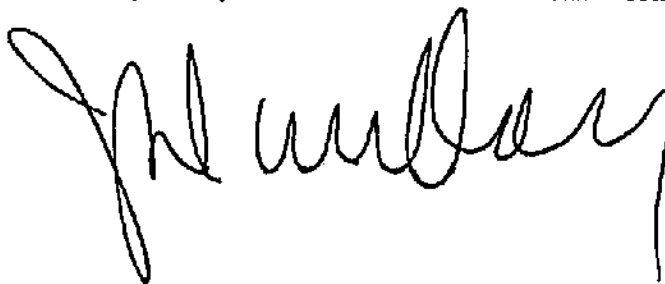
PREFACE

The National Institute for Occupational Safety and Health (NIOSH) is pleased to present this Occupational Respiratory Disease Report to the public. The information contained in this report should help all of us in reaching the United States Public Health Service 1990 Objective of a more healthful workplace.

The document seeks to describe the respiratory disease processes which affect the American worker, the requisite tools of evaluation, the existing methods of prevention, and areas where further effort and research are needed. We hope it provides a useful review of where we are today and where we need to go in order to eliminate the burden of occupational respiratory disease.

In a field expanding as rapidly as is research in occupational respiratory disease, new findings are reported daily. Thus, it is not possible always to incorporate the very latest information into reports such as this. Nonetheless, we present this book in hopes it will be a helpful, well-referenced treatise on occupational respiratory disease.

We sincerely appreciate the months of hard work devoted to this volume by the authors, reviewers, and editorial staff. Their diligent efforts should help all individuals who are concerned with the elimination of respiratory disease from the American workplace.

A handwritten signature in black ink, appearing to read "J. Donald Millar". The signature is fluid and cursive, with a large initial "J" and "M".

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Appendix Table: The U.S. Population at Risk to Occupational Respiratory Diseases

Screening

Epidemiology

Beryllium Disease

Acute Systemic Effects of Inhaled Occupational Agents

Pathology of Occupational Lung Cancer

Occupational Asthma and Rhinitis

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When you come to a patient's house, you should ask him what sort of pains he has, what caused them, how many days he has been ill, whether the bowels are working and what sort of food he eats. So says Hippocrates in his work Affections. I may venture to add one more question: what occupation does he follow? In medical practice, I find that attention is hardly ever paid to this matter, or if the doctor in attendance knows it without asking, he gives little heed to it, though for effective treatment evidence of this sort has the utmost weight...

...Preface to De Morbis Artificum by Bernardini Ramazzini (1770)