# Identifying and Controlling Pulmonary Toxicants

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# IDENTIFYING AND CONTROLLING PULMONARY TOXICANTS

BACKGROUND PAPER





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#### Foreword

History reveals an enduring respect for lung function. In the biblical account of creation, man becomes a living soul when he receives the breath of life. Edward I of England banned the use of coal in 1273 because he found inhaling its smoke detrimental to human health. When asked how to ensure a long life, Sophie Tucker replied, "Keep breathing."

This Background Paper examines whether the agencies responsible for administering Federal environmental and health and safety laws have taken this concern for respiratory health to heart. Prepared at the request of the Senate Committee on Environment and Public Works and its Subcommittee on Toxic Substances, Environmental Oversight, Research and Development, the study describes technologies available to identify substances toxic to the lung and Federal efforts to control human exposure to such substances through regulatory and research programs. The analysis shows that new technologies hold great promise for revealing the potential adverse effects on the lung of new and existing substances, but that much remains to be learned. This Background Paper provides a partial response to the committees' request for an assessment of noncancer health risks in the environment and follows OTA's previous work on carcinogenic, neurotoxic, and immunotoxic substances.

OTA acknowledges the generous help of the workshop participants, reviewers, and contributors who gave their time to ensure the accuracy and completeness of this study. OTA, however, remains solely responsible for the contents of this Background Paper.

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