

Hyping Health Risks: Environmental Hazards in Daily Life and the Science of Epidemiology



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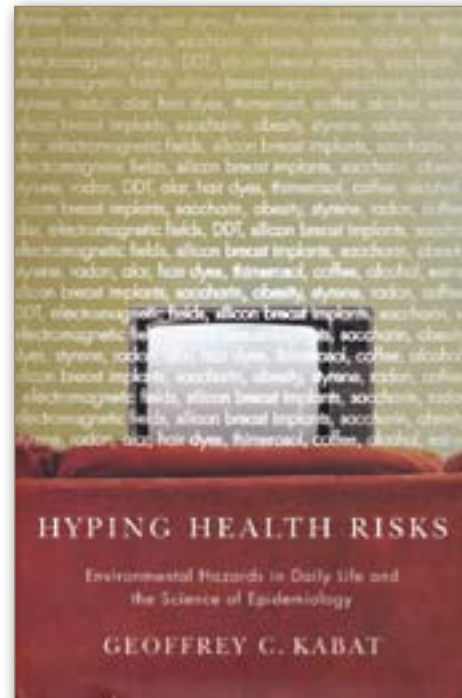
In the 1990s, Geoffrey Kabat served on a committee evaluating a 500-page US Environmental Protection Agency draft report on passive smoking. The report indicted secondhand smoke as responsible for some 3,000 lung cancer deaths each year. Most committee members endorsed this finding—putting Dr. Kabat, an epidemiologist, in a difficult position.

He knew that average carcinogen levels in secondhand smoke were quite low compared with the levels that smokers inhale and that measuring someone's exposure to secondhand smoke over several decades is extremely difficult. Those limitations meant that epidemiologic studies—which the EPA report had relied on heavily in reaching its conclusions—could not reliably determine the health effects from passive smoking.

Dr. Kabat felt that a supposedly comprehensive report on passive smoking should disclose the weaknesses of the available epidemiologic evidence. It didn't; but his new book—*Hyping Health Risks*—does.

A work of uncommon scientific honesty and clarity, *Hyping Health Risks* takes on four headline-making controversies involving cancer and other chronic diseases: passive smoking as a cause of lung cancer and heart disease; residential radon and lung cancer; electromagnetic fields and a range of diseases; and environmental pollutants and breast cancer. He concludes each chapter by summarizing the strength of the evidence linking the risk to its purported disease.

Dr. Kabat's aim is not to dismiss epidemiologic studies that investigate health risks. Rather, he casts a bright light on the not-so-disinterested parties that "interpret" the findings from those studies, including industry consultants, consumer groups, the legal profession, the media and even scientists themselves.



All are prone to deliberately skewing or misinterpreting epidemiologic findings to create an atmosphere of anxiety from which they can benefit. The fear-mongering is abetted by the public's willingness to embrace the hazard du jour and by its misunderstanding of the concept of risk magnitude.

For example, Dr. Kabat cites studies indicating that non-smoking spouses of smokers have a 25 percent higher risk of lung cancer compared with nonsmokers whose spouses don't smoke, which sounds substantial. But lung cancer in non-smokers is extremely rare—about 15 cases per 100,000 nonsmokers per year.

So a 25 percent increase in risk means just four additional lung-cancer cases per hundred thousand nonsmokers. For perspective, this 25 percent increase in risk for nonsmoking spouses should be compared with the 2,000 percent increased risk for lung cancer for a current smoker.

Dr. Kabat's message to his fellow epidemiologists: To prevent your findings from being used as fodder by alarmists, make sure your studies clearly state what is firmly known, reasonably suspected or improbable. And whenever possible, put findings into context.

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