



Since we have no choice but to be swept along by [this] vast technological surge, we might as well learn to surf.

Michael Soule

Conservation for the 21st Century, 1989

### Environmental Handbook

In recent years, children's environmental health has become a dominant public policy issue and a focus of epidemiology and medical research. On 10 October 1999, the American Academy of Pediatrics released the *Handbook of Pediatric Environmental Health*, a 400-page desk reference written by pediatricians for pediatricians. The handbook pulls together clinically relevant information on children's environmental health and presents it to the practitioner in one easily accessible location. Says Ruth Etzel, a pediatrician and epidemiologist with the U.S. Public Health Service in Washington, DC, and the handbook's editor, "The handbook is the first of its kind. It's geared toward helping a doctor to assess a child with a health problem to determine whether the problem is linked to an environmental hazard." The book may also help pediatricians answer parent questions about how the environment may influence their children's health.

The specific topics covered in the handbook include prevention of exposure to nitrates and recognition of methemoglobinemia in children, diagnosis of acute pulmonary hemorrhage in infants associated with exposure to toxigenic molds, and more general topics such as lead and mercury poisoning and risks from exposure to ultraviolet light and outdoor air pollution.

The handbook, informally referred to as the Green Book, was written by the academy's Committee on Environmental Health (chaired by Etzel), which was created in 1957 to respond to pediatricians' concerns about fallout from weapons testing and fears of nuclear war. The book is arranged in four sections: background that

instructs pediatricians on the subtleties of taking a comprehensive environmental history; a list of specific pollutants; information on the risks of specific materials, environments, and occupations; and discussion on complex issues such as multiple chemical sensitivity and environmental justice.

Sophie J. Balk, a pediatrician at the Montefiore Medical Center in the Bronx, New York, who assisted Etzel in editing the handbook, says that, although the book is geared mainly toward pediatricians, it also contains information that could be useful for parents and school nurses.

"It's very practical and easy to use," she says. "Most of the chapters are followed by a section including frequently asked questions and answers."

The chapter on environmental tobacco smoke, for example, includes guidance on smoking cessation and a description of the health benefits that come with removing the

exposure. According to Etzel, exposure to secondhand smoke is a major pediatric environmental health problem associated with increased risk of ear infections, sudden infant death syndrome, and asthma.

Many of the patients that Balk sees in her inner-city clinic have asthma, which is a growing problem among minority children in low-income urban environments. Balk says that the handbook provides useful information for clinicians who diagnose and treat asthma. For instance, there is information on environmental triggers of asthma as well as practical treatment and prevention measures such as how to get rid of the roaches, dust mites, and molds that can exacerbate the condition.

Balk emphasizes that pediatricians

confronted with a child with a complex or potentially life-threatening situation such as acute poisoning should consult a pediatric specialist for immediate guidance on appropriate treatment. But for most situations, practitioners will be able to turn to the new handbook for referencing a wealth of pertinent information designed to facilitate diagnosis, treatment, and prevention, as well as improve education regarding environmental health problems in children. The AAP can be accessed through its Web site, located at <http://www.aap.org>.

### Ulcer-Causing Bacterium Found in Well Water

Although the primary mode of transmission of *Helicobacter pylori*—the bacterium that causes 75% of stomach ulcers—is unknown, experts suspect some type of person-to-person route of infection, perhaps fecal-oral or oral-oral. Now, researchers in the Department of Environmental Engineering at Pennsylvania State University at Harrisburg are the first U.S. scientists to report preliminary data linking contaminated drinking water with *H. pylori* infection.

In 1983, two Australian physicians first isolated a spiral-shaped bacterium (later named *H. pylori*) from ulcer patients and proposed that it caused gastritis (stomach inflammation) and ulcers. However, few physicians accepted the idea because stress and acidic foods were believed to be the cause of ulcers. To convince the medical community, the Australian researchers swallowed *H. pylori* and demonstrated that their digestive tracts subsequently became inflamed. The bacterium is now accepted as the major cause of stomach ulcers. Moreover, *H. pylori* is associated with two cancers, gastric carcinoma and lymphoma of the mucosa-associated lymphoid tissue (MALT). In fact, the presence of *H. pylori* confers about a six-fold risk of gastric cancer, which is the second most common cancer worldwide, and biopsies show that 90% of MALT lymphomas are associated with the bacterium. More recently, Italian researchers reported in the 5 May 1998 issue of *Circulation* that *H. pylori* may contribute to heart disease by causing low-grade, lifelong infections and smoldering

