



BUSINESS COUNCIL ON INDOOR AIR

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February 6, 1992

Ms. Leonora L. Guarraia
U. S. Department of Housing and Urban Development
Fair Housing and Equal Opportunity
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Dear Ms. Guarraia:

Thank you for the opportunity to discuss your agency's position on multiple chemical sensitivity (MCS or environmental illness). As I related at our meeting of January 9, the Department of Housing and Urban Development has clearly confused the definitions of chemical sensitivity or hypersensitivity and MCS. The two examples cited in Mr. Mansfield's letter are examples of the former, not the latter, as suggested by Mr. Mansfield. I have enclosed a copy of his letter for your reference.

After consulting experts in the medical field, I would like to offer the following definitions:

Chemical hypersensitivity is a state of ordered reactivity in which the body reacts with an exaggerated immune response to a foreign substance (some chemical agents, plant products, animal products). Symptoms may resemble hay fever, asthma, or contact dermatitis. The hypersensitivity reaction is repeatable with similar symptoms each time the individual is exposed to the same or a chemically similar substance. This medical condition can readily be confirmed by using well-recognized and accepted diagnostic techniques and laboratory studies.

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Chemical hypersensitivity should not be confused with symptoms produced by irritants such as sulfur dioxide, nuisance odors such as paint fumes, or unpleasant odors such as sewer gas.

Multiple chemical sensitivity has been described as an acquired disorder characterized by recurrent symptoms, referable to multiple organ systems, occurring in response to demonstrable exposure to many chemically unrelated compounds at doses far below those established in the general population to cause harmful effect.

The American Medical Association, as recently as December 1991, and other medical societies, including the American Association of Allergy and Immunology, the American College of Physicians, and the American College of Occupational and Environmental Medicine, agree that to date there is inadequate scientific evidence to establish the existence of MCS as a disorder. Research is currently being conducted by a number of institutions and supported in part by federal agencies.

For your information, I have enclosed BCIA's white paper on environmental illness, the American College of Physician's position on the syndrome, and a recent clinical study of 26 subjects demonstrating symptoms that have been attributed to the syndrome. We would greatly appreciate a correction of the guidance document sent previously to your district offices. I will call you in a week or so to discuss this request.

Sincerely,



Paul A. Cammer, Ph.D.
President

Enclosures



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ENVIRONMENTAL ILLNESS

"Environmental illness" is a term used to refer to a collection of general symptoms. It is a controversial human health phenomenon similar to other ill-defined syndromes which have been described for over 100 years and has attracted attention from such diverse groups as lawyers, physicians, insurance companies, scientists, industry, and Congress. It is known by at least 20 synonyms, including "multiple chemical sensitivity," "total allergy syndrome," and "twentieth-century disease." Those who suffer from environmental illness maintain that the condition is an acquired disorder resulting in an aversion to a wide variety of synthetic materials, ingested foods, and drugs resulting in symptoms that may be multiple and wide ranging.

The concept of environmental illness is not a new issue. As early as the 1950's, it was postulated that environmental illness resulted from the failure of humans to adapt to modern-day synthetic materials.¹⁻³ According to this theory, the influx of man-made materials has resulted in a new form of medically unexplained, specific sensitivity. Once sensitized, the person generally reacts to increasingly lower concentrations of the causative agent as well as to other chemicals and foods.¹⁻³ This "spreading" effect is one area among many where the environmental illness theory is inconsistent with medically-accepted doctrine concerning allergic sensitivity to individual substances.

Historically, the theory that environmental illness is caused by chemical contact has only weak support. This causation theory has received some attention in recent years, however, because of anecdotal reports of the suffering of certain individuals demonstrating symptoms attributed to this syndrome (e.g., nausea, headaches, dizziness), there are very few symptoms that have not been considered to be related to such an etiology.

While there is a broad variety of claims regarding the initiation of environmental illness, there are no reliable statistics estimating its prevalence. Some people cite the National Academy of Sciences (NAS) as estimating the incidence of environmental illness in the United States. NAS has stated, however, that they have never made this statement or published such a conclusion.⁴

Numerous professional medical associations have examined available information regarding environmental illness and the diagnostic criteria that have been proposed by clinical ecologists (practitioners who diagnose and treat this phenomenon). These medical groups have generally found deficiencies in the scientific evidence for the syndrome as a distinct clinical entity.⁵⁻¹³ Moreover, in double-blind studies, the treatment (i.e., provocation-neutralization) of individuals by clinical ecologists has not been indicated to relieve symptoms any better than placebo treatment.¹⁴⁻¹⁵ Additionally, the implication of a role for environmental illness in immune system dysfunction has been criticized on both theoretical and empirical grounds. Dr. Abba Terr (Division of Immunology, Stanford University Medical School), whose views on environmental illness have been supported by the American College of Physicians and the American Academy of Allergy and Immunology, states the following:

The pattern of symptomatology is too wide ranging, nonspecific, and variable to suggest a single pathogenetic mechanism, immunologic, or otherwise. The now well-established pathways for immunologic mediated forms of hypersensitivity each produce specific patterns of tissue inflammation and corresponding organ dysfunction, whereas no clinical or histopathologic evidence of inflammation has been demonstrated in patients with [environmental illness].¹⁶

Though the medical profession expresses doubt that environmental illness is, in fact, a distinct clinical entity, it is clear that a small but significant number of people display symptoms from whatever cause that do not conform to our present understanding of allergic disease.¹⁷⁻²¹ While chemical exposure has often been attributed as the cause of the symptoms, other factors such as biological contaminants, noise, lighting, interpersonal relationships, stress, work station design, and psychological factors^{22,23} have not been ruled out. Whatever the actual causes of environmental illness, baseline research aimed at identifying the nature of claims for the etiology of symptoms is necessary.

Recommendations

Because of the controversy surrounding environmental illness it is premature to develop any governmental policy based on the vague and anecdotal information currently available. Accordingly, the initial focus of environmental illness research should be to seek clarification of the medical/physiological/psychological nature of the syndrome. To this end, a few state governments are conducting reviews of environmental illness and NAS has conducted a workshop to discuss environmental illness-related research needs.

All people deserve quality medical care including correct diagnosis and appropriate treatment. Our nascent understanding of environmental illness, however, does not allow us to determine proper diagnosis or treatment. Therefore, it is of paramount importance that these issues for environmental illness be resolved and the significance of environmental exposure, if any, be established. To address this issue, only research of the soundest scientific design should be supported, employing double-blind, placebo-controlled techniques. A research agenda could include the following:

- (1) definition of the syndrome to be studied;
- (2) investigation of the role of specific toxicologic (e.g., immunological) mechanisms for environmental illness or for the syndrome defined;
- (3) determination of specific, measurable health effects, if any, that can be scientifically attributed to exposure to specific chemical substances and an estimation of the dose necessary to produce these symptoms;
- (3a) determination of specific, measurable health effects, if any, that can be scientifically attributed to exposure to a variety of unrelated chemicals and an estimation of the dose necessary to produce these symptoms;
- (4) determination of the role of biological contaminants in contributing to symptoms;
- (5) determination of the clinical relationship, if any, between chemical hypersensitivity and environmental illness; and
- (6) development of an epidemiological study of symptoms and clinical findings attributed to environmental illness, determining a distribution of prevalence by age, sex, race, education, occupational history, psychiatric status, and geographical region (this would include determination of age at onset of environmental illness). In addition, the natural history of environmental illness should be studied and documented.

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