Introduction

The history of man is replete with examples of illness resulting from exposure to environmental pollution. For example, Thor Heyerdahl, in his book *Fatu Hiva,*[1] described natives who became ill when they lined their slat houses, which had excellent ventilation, with metal sidings brought to them by the British. Instead of aiding the natives, these slabs actually curtailed good ventilation, thus sealing the indoor air and contributing to an accumulation of pollutants, probably bacteria, molds, and mycotoxins (mold poisons), all of which are capable of triggering ill health. In contrast, Florence Nightingale recognized the importance of clean indoor air to good health, and thus demanded fresh air when she outlined her plans for British military hospitals. She even stipulated that the cooking facilities be in separate buildings from the sleeping quarters in order to assure clean air for optimum healing.

Through the ages, many creative people were partially stifled by pollutant overexposure. Their adverse reactions often were misinterpreted as psychological when, in fact, their problems might have been due to excess pollutant exposure. Charles Darwin was ill most of his life and often complained of pollutant and food exposures that made him ill. The artist Vincent van Gogh cut off his ear in a psychotic rage that might well have been due to his sensitivity to excess paint fumes. Even Hitler had a great aversion to odors of various pollutants. This overload might explain some of his psychotic behavior. Howard Hughes, the industrialist, clearly had aversions to many environmental odors and eventually became a noncreative recluse with his disease affecting him until he became incapacitated. At times, Thomas Edison could tolerate only milk and no other foods. On a more positive note, Billy Casper, the golf champion, and Carol Channing, the famous movie star, were affected by foods and environmental pollutants, overcoming them to be very productive and creative people. President Teddy Roosevelt overcame pollutant-triggered asthma induced in cities by going to areas of fresh air. We all have benefited from his creation of famous national parks.

The American Indians used to complain of the foul odor of the white man, which came from diets and toxic living conditions.

From the start of the 20th century, adverse effects of indoor pollutants have been recognized. Rampant tuberculosis was presumably, at least in part, a result of exposure to smoke from fireplaces and open coal- and wood-burning stoves. Lung and vascular diseases were also thought to be the result of exposure to coal-burning, open-hearth furnaces, asbestos plants, nickel plants, aluminum plants, and beryllium plants.

Through the course of this century, some malignant and nonmalignant diseases have been attributed to polluted indoor environments. Some of these diseases include leukemia from benzene and radiation exposure, lung cancer from radiation exposure[2] or cigarette smoking,[4] bladder cancer in workers ex-

posed to aniline dye (now used in some carpets),[5] testicular neoplasms in chimney sweeps from fireplace dust,[6] and mesothelial cancer (cancer of the lung lining, the pleura) in asbestos workers.[7] Recently, some houses have been described that appear to be cancer-generating. Suspected triggering agents are mycotoxins (mold toxins), termite-proofing chemicals (i.e., chlordane, heptachlor epoxide, chlorpyrifos, or other pesticide spraying), and wood preservatives (e.g., pentachlorophenol and other phenols). Also, observation and study have revealed a relationship between chronic pollutant exposure and some chronic disease problems of unknown causes such as irregular heartbeats, some blood vessel diseases such as vasculitis (inflamed blood vessels) and arteriosclerosis (hardening of the artery), causing strokes, heart attacks, peripheral arterial spasm (Raynaud's disease or phenomena or coronary spasm), high blood pressure, arthritis and arthralgia, fibromyalgia, chronic fatigue, short-term memory loss, lack of concentration, confusion, imbalance, asthma, chronic bronchitis, esophagitis, gastritis, enteritis (Chron's Disease), colitis, proctitis, menstrual irregularities, infertility, neuroendocrine dysfunction, bladder irritation, recurrent infections to indoor air pollution, and some cancers.

It is now becoming clear that environmentally triggered disease can be acquired with repeated exposure to chemical irritants and that it may be aggravated by excessive physical and psychological stress. Chronic pollutant exposures – such as to new carpet, dry-cleaned clothes, pesticides, cleaning solvents, car exhaust, gasoline, etc. – result in chronic perception problems, with the individual either feeling ill or just ill at ease (jittery, slightly depressed, agitated, unable to concentrate without effort, unable to create, loss of vigor, brain not as sharp but unable to associate cause and effect. Continued exposure to toxic conditions, even at low levels, may also be responsible for a large number of the chronic problems (such as aches and pains, immobility, poor memory, dull thinking, poor appetite, and constipation) that we have come to accept as part of the aging process. The increase in minor skin problems that often accompanies aging may be related to excessive pollutant exposure. Frequently, we have seen patients in the controlled environment lose 10 to 20 years in appearance as they clear their pollutant load. Conversely, we have seen signs of aging appear rapidly with controlled pollutant exposure. The proliferation of new chemical products and their introduction into building materials, furnishings, finishes, and maintenance products are continuing at an alarming rate, often without the consumer's knowledge. These contaminants, including pesticides, often disturb optimum function.

It is obvious that creativity requires a finely tuned brain. We have often observed that minor pollutant exposure, such as to fumes from lights, fireplaces, plywoods, and pressed boards, will dull the brain of creative writers, artists, musicians, engineers, businessmen, and physicists just enough to stall the creative flow. Conversely, when these people can achieve optimally clean air, their creative energies leap to the forefront, allowing them to pour out their new ideas and processes. We have seen many examples of this creativity, with one individual being able to write eight books in six years when she had previously written none. Another individual could barely talk or communicate until she overcame her pollutant-derived illness; then she wrote a very intelligent book. Another person began to compose music and became a noted musician. Others have become painters and sculptors, and many have developed into creative entrepreneurs – some even becoming millionaires and heads of growing companies.

The concept of health that emerges from our recognition of a causative link between chronic environmental exposures to multiple toxic and nontoxic agents, (e.g., perfumes, newsprint), the dulling of perception, memory, and balance and energy, the eventual onset of environmental sensitivities and, finally, the development of generally recognized, named clinical disease is at the heart of the medical protocol used at the EHC-Dallas, and it is becoming increasingly accepted worldwide. This concept is based on four essential tenets. First, even in the presence of individual and nutritional variations, the development of poor function is dependent on the relationship of the individual to his/her environment. Second, chronic exposure to deleterious environmental factors, if ignored and allowed to continue (even with "medicated wellness"), has potentially harmful effects. Third, a significant time span may exist between an initial toxic environmental exposure (or repeated exposures) and the development of ill health, loss of creativity, physical and mental energy that may eventually lead to a specific, generally recognized fixed-named disease. It is critical to note that even after the onset of a named physical illness (e.g., lupus, coronary disease, arthritis), environmental exposures may remain the prime factor in its propagation. Finally, from the onset of a toxic exposure to the development of end-stage clinical disease (e.g., cystitis, asthma, regional enteritis, strokes), there is a spectrum of multiple signs and symptoms that represents the biological markers of the effect of the exposures.

These exposures must be recognized and eliminated early if end-stage disease is to be prevented. Then, for individuals to achieve and maintain optimum health and creativity and to retard aging, their total pollutant load must be reduced, they must remain deadapted (unmasked to pollutants) in the alarm stage (so that they will be immediately aware of the acute effects of pollutants), and they must remain in a complete state of nutrition. In this state, the systems responsible for protecting the body from pollutant insults will respond more appropriately and in a finite manner. The individual's range of physiological adaptation then expands, and he can maintain vigorous, symptom-free, and optimum health and creativity, even when experiencing the isolated high-level pollutant exposure that people will routinely experience in daily living.

At the EHC-Dallas, we are so committed to the tenets of this evolving concept of health, vigor, and creativity that we have helped create numerous less-polluted homes, schools, hospitals, clinics, and business environments that have allowed environmentally sensitive patients to clear their symptoms, eliminate their need for symptom-suppressing medication, and become well. We recognize, however, that individuals leaving these environments enter a modern world of pollutant-sealed buildings that are contaminated by toxic chemicals, mold, dust, other particles, and electromagnetic radiation. These are the same buildings most of us navigate on a daily basis and in which we spend up to 95 percent of our time, denying ourselves regular access to full-spectrum sunlight and fresh air. As a result, most of us undergo chronic pollutant exposure. This combination of polluted environment plus chronic exposure is a recipe for ill health. In fact, chronic ill health, e.g., depression, brain fog, muscle and joint aches, chronic fatigue, etc., and disease (heart attacks, strokes, coronary disease, liver failure, etc.) often occur from exposure to pollutants in these toxic indoor environments in which most people now live and work.

In an ideal world for optimum health, the best defense against the indoor pollution problems we face today would be to construct new, less-polluted, and aesthetically pleasing environments that would encourage optimum function and retard the aging process. Since Western society often replaces buildings every 10

to 20 years, it is now feasible to reconstruct our cities and homes. We advocate remodeling existing, polluted buildings and exercising care in the construction of any future buildings. This book details methods for achieving both goals. Founded on our experience in modifying the homes and workplaces of our many environmentally ill patients, we will take the reader through each step of the building process, pointing out the pros and cons of using particular strategies and materials. We will discuss the application of various less-polluted housing tenets and give examples of the trials and accomplishments of some of our patients as they moved through the treatment process, opting for safer lifestyle practices and developing personal less-polluted sanctuaries, thus obtaining optimum function, vigor, and creativity. Their full recovery and subsequent optimum function is a testimony to the benefits of less-polluted housing and work environments.

References

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