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ENVIRONMENTAL MEDICINE

February 11, 1986

Perry Chapdelaine
Executive Director
Rheumatoid Disease Foundation
Rt. 4, Box 137
Franklin, Tenn. 37064

Dear Mr. Chapdelaine:

Thank you for your invitation to present the "Bio-Toxic Reduction Program" to your Foundation on July 16-19, 1986 in Santa Monica, California. As I mentioned, Giovanna DeSanti-Medina will also attend to help answer questions from the perspective of an individual who has successfully completed the program. She is case history # 2 on the information enclosed on the program and progress of those who have completed the program.

I am currently working on approximately 50 more case studies. It is expected that these will be completed shortly. We have had over 100 patients complete this program to date and have found an average improvement of 70-75% in these patients, which is remarkable when you consider the fact that most were severely disabled and failed other therapies. Many were considered untreatable. We have had program participants who range between the ages of 5 and 80. Thirty four patients have had peripheral neuropathy and all have improved. Those with arthritis have shown significant improvement after completing this program of detoxification (See case # 1 and # 22).

I hope you will find the enclosed material both interesting and informative. I look forward to presenting this information in July. If you have further questions, please feel free to contact me at (619) 583-5865.

Sincerely,
ZANE R. GARD, M.D.
Consultant/ Human Environmental Medicine, Inc. ZRG:gm
Encl.

Your diet, your job, your neighborhood or your hobby may be killing you. Chances are your mind will be the first to go. Ninety percent of the 150 million metric tons of toxic waste generated every year by American industry will be improperly disposed. It will end up in our beaches, in our drinking water, our playgrounds or abandoned in open fields, and eventually in our bodies. We're sitting on a time bomb that could explode in the next generation... or at the end of our own lives with birth defects, cancers, mental illness, and early senility.

A MEDICAL PROFILE : Brain and Body Pollution

Zane R. Gard, M.D., E. Jean Brown, PHN, BSN,
Giovanna DeSanti-Medina
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"Toxic Bio-Accumulation and Effective Detoxification"

Today man no longer suffers the devastation of polio, cholera, smallpox, T.B., and typhoid epidemics. However, more insidiously he does suffer from high blood pressure, stroke, heart problems, cancers, allergy, obesity, and a barrage of mental illnesses that now reach

epidemic proportions...trends which reflect the diseases of "industrialism." The past 150 years have been a time of incredible progress for medicine, science and industry. Because of these advancements we now enjoy longer, more productive lives. However, there are many who will inevitably pay a high price for our modern lifestyle. The "unnatural" by-products of our chemical technology have resulted in contamination of our "natural" resources. Though toxic substances have been in existence for centuries, today we are exposed to chemical concentrations far greater than were our ancestors. There is no single contributing factor which has impaired man's adaptability to the environment than that of our current widespread use and misuse of harmful chemical substances. EPA director, William Ruckelshaus, recently stated chemical pollution as the number one environmental problem.

Since 1965, over 4 million distinct chemical compounds have been reported in scientific literature. Each week over 6,000 new chemicals were added to the list between 1965 and 1978. As of 1981, of over 70,000 chemicals in commercial production, 3,000 have been identified as intentionally added to food supplies and over 700 in drinking water. During food processing and storage 10,000 other compounds can become an integral part of many commonly used foods. Directly or indirectly this toxic residue invariably works its way into our air, food, and water supplies...and ultimately into the human body. Add to the list of potential body toxins, radiation (x-rays, nuclear fall-out, computer terminals, powerlines, etc.), petrochemicals, industrial waste, medical and street drugs, tons of pesticides, herbicides, and insecticides, and the result is an incredible chemical avalanche to have befallen the human race in a relatively short time of evolutionary history.

It should not then be surprising that individuals who become environmentally susceptible or "maladapted" to one or more common chemical excitants are usually not the same thereafter. Current clinical, scientific, and governmental studies indicate a staggering increase in the incidence of environmentally-induced illnesses. Two major factors responsible for this outbreak are: discrepancies in established "safety" standards for "allowable" contamination due to inadequate toxicity data; and, the approved use of many toxic substances in this country which have been banned in other countries as known threats to public health. While many of these chemicals have unequivocally saved lives, property, and entire industries, most are not aware that millions of people have been and continue to be poisoned and countless others killed as a result of insidious chemical exposure. The toll on human suffering is incalculable at present as current statistical data does not accurately reflect non-occupational exposures, nor cumulative, interactive, or long-term chemical effects. However, it is estimated that at least 20 million Americans in the workplace alone are exposed to toxins capable of producing damage to the central nervous system even from minute concentrations. In the long run, everyone pays a price for unhealthy workers.

Noted researchist and clinical immunologist, Alan S. Levin, M.D., recently stated that, "The vast increase of chemicals in our environment, foods, and medicines, has greatly altered the body's ability to rid itself of toxins...these factors have changed the character of illness and disease so that the average physician can no longer rely on past case histories or text books but must depend on the immediate observation of the patient. The average citizen of the 1980's is biochemically and genetically different from the average citizen of the 1950's...so different, in fact, that ordinary texts and training are geared to treat people who no longer exist." Accordingly medicine has had to accommodate the "changing" patient. A convergence of toxicology, allergy/immunology, nutrition, and behavioral science, the field of Environmental Medicine has emerged. In an attempt to better understand man's complex interaction with his volatile environment,

this interdisciplinary field focuses on the study of both endogenous and exogenous environmental factors as they relate to the physiological and psychological disease process.

When the body's homeostasis or "internal balance" is disrupted by toxic levels which exceed individual tolerance thresholds, an illness results in one form or another. Whether due to an acquired or genetic susceptibility (immune deficiencies, nutritional imbalances), direct environmental hazards (residential, occupational, recreational), other "passive" daily exposures (dietary, home, office, classroom), or a combination of these factors, the outcome of repeated chemical exposures is often a pathological state of "chemical hypersensitivity." Free radical damage which results in this "spreading phenomena" causes the patient to become hypersensitive not only to the chemical exposed to, but other chemicals, and in many cases leads to food sensitivities and other allergies. For those experiencing the degenerative process of chemical sensitization, daily life becomes a continual challenge as potentially offensive substances are omnipresent in both indoor and outdoor environments.

Some of the synthetic and natural toxicants capable of producing symptomatology in hypersensitive patients include industrial/agricultural/household chemicals, natural food toxins, drugs, and various inhalants (mold, dust, bacteria). Many incitants, present in liquid, vaporous, or solid form, appear as volatile or "harmless" while continuing to "out-gas" for an indefinite period of time. Chlorinated pesticides, many of which were developed in the 1940's, have been stated as the primary cause of environmental disease today. These include DDT, DDE, Dieldrin, Lindens, Heptachlor and Chlordane. Numerous common agents used in fumigants, solvents, lubricants, deodorants, and disinfectants can also have a significant impact over time. Chronic exposure to petrochemical derivatives such as formaldehyde and phenol found in anything from building materials, plastics, cosmetics, perfume, paint, hairspray, toothpaste, and adhesives to natural gas, can have ill effects on both hypersensitive persons and otherwise healthy populations.

Symptoms of chemical exposure and subsequent state of hypersensitivity may be obscure, particularly when polysystemic or delayed responses are involved, and therefore may be difficult to diagnose. The elusive maladaptive responses or "reactions" to this "chemical overload" range anywhere from fatigue, headaches, mental confusion, depression, and personality changes to hyperactivity, joint pain, breathing difficulty, and multiple allergies. Symptoms will depend largely upon which target organ, tissue, system is primarily affected in any given person. Routes of contact (i.e., the skin pores, respiratory system, or intestinal tract) will also have a significant bearing on the effects of an exposure. Initial symptoms may appear in the form of occasional nervousness, appetite changes, altered sleeping patterns, chronic yeast infections, or a number of apparent insignificant, unrelated symptoms at the onset of the condition. However, often these "subliminal" symptoms are merely early signs of impaired immune function or other biochemical changes, which ultimately may lead to chronic or degenerative disease states later on in life. Research has clearly demonstrated a high propensity for developing a physiological "addiction" to environmental chemicals, in which case symptoms may be either an exposure itself or a "withdrawal" response once the source is removed from regular contact. An illustration of "toxic bio-accumulation" may provide a means of understanding this disease process. Such compounds as DDT, PCP, PCB, THC, TCE, as well as other common pollutants and drug residues, have been shown to accumulate and remain in the body over long periods of time. Eventually the metabolizing of such compounds which are foreign to the biological system, leads to the accumulation of these oil soluble chemicals and their products into lipid (fatty) deposits throughout the body. Since almost every cell and virtually-

every organ contain a "fat" component (even the brain), chemicals which are stored in the body pose a serious threat to both physiological and psychological health. Because these stored toxins can be released into the bloodstream during times of physical or emotional stress, any organ which is accessible to this residue is continually being exposed at low levels. The effect is much like a chronic exposure. This is why exposure to even minute amounts of toxic chemicals can be dangerous.

When the immune system over-reacts, conditions such as lupus may result; when it is suppressed, eventual cancers can develop. Studies in oncology show a marked association between PCB and DDE levels found in the body fat and an increase in the development of cancer. EPA studies suggest that virtually all U.S. citizens are carrying one or more toxic chemicals. It is becoming more apparent that almost all cancers are caused by adverse environmental factors. Environmentally persistent chemicals (such as pesticides) are designed to last over long periods of time, some having half-lives of twenty or more years. Many compounds which do not easily metabolize or breakdown within a short period of time are stored rather than readily eliminated from the body. This is one of the reasons cancers usually develop 20-30 years following a toxic exposure. This also accounts for the difficulty of determining long-term health risks involving newly marketed chemicals approved for public use.

Because liver "detoxification" enzymes can bioactivate certain substances to a more active state, a non-carcinogenic agent can become an active carcinogen through this metabolic conversion process. There is also growing concern over the effects of toxic substances which have not necessarily been determined highly carcinogenic, but have been classified as "weak carcinogens" or certified "safe" for human use at low levels. Consideration must also be given to the toxic interactive effects of even minute chemical concentrations which are concurrently stored within body tissues. It may take decades to evaluate the full impact of many chemical substances widely used in this country today.

It has been shown that many chemical metabolites are more toxic than the parent chemical itself. Toxins or their metabolites (xenobiotics) stored within the nervous system may result in cognitive, intellectual, and mental impairments. Many clinicians without specialized training in Environmental Medicine may be unaware of the correlation between immune dysregulation and brain function. The immune system is a complex response system which protects the body against ...pathogenic organisms and other toxins. The direct relationship of the brain and the immunity process had been established as early as 1961 at the University of Rochester, in New York, and has been confirmed by numerous studies since then. Recent scientific studies have shown immune dysfunction to occur upon exposure to chemicals even at low concentrations or at "sub-toxic" dose. Since the brain is the organ through which mental phenomena are manifested, any changes in brain chemistry caused by toxins which cross the blood-brain barrier, can produce wide range of neurologic or psychiatric symptoms, particularly if there is inflammation of actual brain tissue.

It has long been established that many routinely used chemicals are either CNS stimulants or depressants. It would appear an undisputed fact that toxic illnesses can frequently mimic mental disorders, however today chemical exposure is frequently still overlooked as an etiologic source of an altered mental state or "mental illness" in the clinical setting. Further complicating the diagnosis, these patients frequently demonstrate completely normal routine laboratory tests. This often leads to an erroneous assumption that a psychological illness is present. A thorough search of current scientific and medical literature provides vital information dealing with the underlying causes of many psychiatric, emotional, behavioral and functional brain disorders, to include learning disabilities.

Extensive laboratory studies of environmentally ill patients often show abnormal immune parameters, enzyme dysfunction, a malabsorption syndrome, hormonal disturbances, various viral and fungal infections, as well as elevated toxic levels, each of which plays a significant role in the body's ability to cope with toxic exposures. Recent diagnostic laboratory studies developed at the University Of New Orleans, utilize a sophisticated method of gas chromatography which can detect as little as one part per billion of many common pesticides and numerous other volatile compounds in human serum. The Chlorinated Pesticide Screening Test used on over 3,000 patients to date has routinely showed a correlation between chronic low-dose exposure to pesticides and adverse health effects. Perhaps for the first time in medical history, it is now possible to accurately quantify the presence of environmental incitants within the body and to measure their biological effects.

Many victims of an environmental disease are slowly dying or deteriorating in health following a chemical poisoning with the absence of any immediate notable symptoms. There are others who may have "adapted" to feeling irritable, depressed, fatigued, or may have never quite lived to optimal potential and attribute vague symptoms to "stress," the "flu" or some other superficial rationale. Unfortunately in these instances, unless appropriate medical management is instituted recovery from the chronic or long-term physical and mental effects of chemical exposure is remote.

Unquestionably major strides in improving environmental health will occur only when politics, science, industry, and medicine collectively make a concerted effort to address current public health issues dealing with chemical pollution. For those whose impending health problems simply can not wait far bureaucratic complexities, there will indeed be enormous consequences. An urgent issue facing not only the medical community but the nation as a whole, is how to increase man's tolerance for unavoidable ecologic stressors, rather than to rest in the hope of immediate environmental modifications or regulations. This is particularly true concerning the patient who is presently suffering from adverse health effects precipitated by both past and current environmental factors involving the use, manufacturing, distribution, transportation, and storage of toxic substances.

Though undoubtedly safer, less-toxic alternatives are available as an option in many industries, given the political and economic sanctions and special interests that dictate these choices. In the years to come it is likely that our society will continue to remain dependent on numerous toxic chemical sources. With increasing incidences of improper storage, illegal dumping, and accidents involving toxic substances, more and more unknowing victims of chemical exposure will fall prey to these unresolved ecologic threats. U.S. industry generates 88 billion pounds of toxic waste every year; 90% of which EPA estimates is improperly disposed of. Significant levels of this toxic residue ends up in America's drinking water. Experts now believe that the water we drink is becoming a threat to life itself.

In addition, a five year study by the EPA on "indoor pollution" concluded that the level of toxic chemicals ingested indoors are as much as 70 times higher than outdoors, making "the home more of a toxic waste dump than any chemical plants nearby." Most people spend 85% of their day indoors routinely breathing mild to severely contaminated air, in what may appear to be the "cleanest" of environments. Today there are no known demographic or geographical boundaries immune to these potential toxic effects.

The effects of environmentally-induced health risks are no longer isolated to any one sector of the population. High risk groups are not limited to those with known immune deficiencies, the chronically ill, young children, and the elderly, as previously thought to be the case. Chemical hazards can have adverse affects on human lives at any time from conception to old age. There is a wealth of scientific data

which demonstrates that everyone becomes "hypersensitive" at some point in his/her ontogeny (during a traumatic or stressful period, as a result of hormonal changes such as puberty or pregnancy, following prolonged drug use, chronic infection or illness, surgery, etc.). There is little doubt that larger populations will predictably become increasingly intolerant of today's adverse environmental conditions unless the existing body burden of stored toxins is reduced.

Until recently the prevailing opinion was that once toxic substances became stored within the body there was little, if anything, that could be done for the individual exposed. In the past, various forms of detoxification have been considered for patients suffering from a toxic illness. These include fasting, colonic irrigation, the Ultrabalance Program, chelation therapy as well as numerous other nutritional approaches. In addition, the administration of various medications such as phenobarbital and cholestyramine, have been frequently used to reduce toxic effects. However, none of these methods consistently and safely reduce significant levels of stored toxicity. Medical management of these cases must also focus attention on the hypersensitive state of the patient. This often limits the choices of well-tolerated treatment approaches which will not add chemical sources to the body.

After 30 years of research, a medically managed detoxification program was developed to lower body levels of psychoactive drugs and to reduce the restimulative effects of drugs and other toxins. Today, the medically managed "Bio-Toxic Reduction Program[®]" is the only detoxification technique evidenced in current nutritional, medical, and biochemical literature which releases stored impurities from body reserves with complete proven safety. With therapeutic doses of vitamins, minerals, and oils, in conjunction with exercise and dry sauna heat, stored toxic residue are mobilized from the fatty tissue. Released toxins are then eliminated from the body by perspiration in the sauna and through the intestinal tract following daily doses of oil (which the body exchanges for contaminated fat). Because the oil is not absorbed into the intestine, the contaminants exit the body via fecal elimination and bile excretion. The precisely calculated protocol ensures that the recirculating toxins are flushed out of the system and to avoid re-entry into the bloodstream. For this reason, participants must complete the entire program. Close specialized medical supervision is required at all times.

Patients often reexperience initial symptoms of chemical exposure and frequently exude strong chemical odors as they undergo detoxification. These "manifestations" minimize as the program approaches the end. The efficacy of "Bio-Toxic Reduction" can be assessed in the terms of lowered toxic levels determined by pre- and post program chemical analyses, as well as by the participants' general improved sense of well-being following the program. The duration of this out-patient program is about 21 days for less severe cases. This is a highly individualized program and results will vary with each participant. Though the detox process does not "cure" specific symptomatology nor any particular disease entity, numerous scientific research projects and clinical cases clearly demonstrate the possibility of many general health improvements which may be otherwise unattainable without the reduction of bodily stored chemical residue.

This process is considered a vital component of a multifaceted approach to managing chemically-induced environmental diseases. Because nearly everyone is subjected to some form of chemical exposure in today's society, naturally participants can be "re-contaminated" following detox, however by lowering the toxic load the program enhances the body's own detoxifying mechanism (which may have become impaired due to a lifetime of chemical exposures). It therefore improves the body's ability to neutralize the effects of continued toxic exposure, particularly if "maintenance" therapy is ad-

hered to. Research studies conducted by Dr. David Schnare, Ph.D., policy analyst for the U.S. Environmental Protection Agency, concluded that the individuals evaluated had experienced up to a 97% reduction of toxic levels through this procedure, and often continued to detoxify as long as four months following the program.

The principal author of this article, Zane R. Gerd, M.D., fellow of the American Academy of Environmental Medicine and medical consultant to Human Environmental Medicine, Inc., is one of the first physicians to implement this medical procedure as the main focus of a clinical practice. The need to research effective therapies for toxic exposure resulted from a personal desire not only to restore his own family's deteriorating health status following a dioxin spill in Missouri, but to provide a viable method of managing an increasing number of environmentally ill patients within his own private practice. The program literally saved his daughter's life. As a result of the success of the "Bio-Toxic Reduction Program[®]", many victims suffering from the effects of chemical exposure, can now avail themselves of this unique program of detoxification long before an environmental illness becomes incapacitating. Interestingly, the program has also optimized the health status of those who had no "apparent" health problems. It has also been shown to increase tolerance thresholds for those with extreme sensitivities and has been well-tolerated by the environmentally ill.

Numerous case histories illustrate a high success rate for individuals completing the program who were previously disabled following acute or chronic chemical exposures. These patient profiles involving either significant reduction or total elimination of "fat stored" toxins have demonstrated various health improvements. A brief description of cases having completed the detox program include Vietnam veterans and other victims recovering from the effects of exposure to Agent Orange; police officers disabled after being sprayed with PCP who resumed full employment status; lupus patient who regained immune response and joint motion; a paraplegic gaining improved muscle strength; asthmatics with elevated stored toxic levels, now void of measurable toxins and taken off medications; employees affected by the "sick building syndrome" as a result of poorly ventilated buildings (particularly new offices or those routinely sprayed with pesticides); residents recovering from chronic illness due to a toxic spill or living near landfills; individuals whose responses to medication ranged from paralysis and dyspnea to violent behavior now able to live "normal" lives after reducing stored levels of pharmaceutical drugs; health was restored in a young child poisoned by sugar purchased in a supermarket which was laced with numerous deadly pesticides; and many successful cases involving recovery from illness resulting from employer's failure to supply adequate safety precautions for workers exposed to hazardous materials. The continued success of this program will help to establish the relationship between the accumulation of toxins, senility, mental illness, and criminal behavior. Further studies are being done on the incidence of birth defects in offspring of parents heavily exposed. There is currently considerable documentation available on the benefits of the "Bio-Toxic Reduction Program" in drug/alcohol rehabilitation.

Few today question the link between carcinogens and other toxic chemical exposures to the development of cancer, birth defects, respiratory disease, and mortality. There is a need, however, to fully understand how elusive daily harmful exposures - within the home, workplace, and from dietary intake - can destroy the quality of life long before a serious illness develops. Tragic accounts of chemical poisonings that reach our nation's headlines are well publicized. But what about the silent suffering of our time... the anguished suicide victims who were unknowingly unable to "cope" with the environment; for the innocent children plagued by deformities or

mental retardation; the tragedy of unsuspected chemical victims confined to locked mental wards or prisons; for many chronically ill who are held captive by ignorance or lack of awareness on chemical pollution...it may be too late. For those of us knowledgeable of the potentially treacherous effects of chemical exposure and the available alternatives...we are far from "helpless." For many, the choices available today will make it possible for man to live in harmony with his ever-changing environment

While millions of federal dollars are allocated to "Superfund" clean up efforts, very little, if anything, has been done to "clean up" the toxic residue lodged within the human host itself. The reality is that needless suffering and health losses will continue to occur simply by consuming toxins in the food we eat, in the water we drink, and in the air we breath - the essential components of life itself. Without question, the legal, social, and medical implications are astounding. Critics who feel that concern over chemical use is disproportionate to any imminent danger can not fully comprehend the situation without witnessing the actual nightmare of toxicity. The threat of destruction of our nation due to chemical insults has been stated by authorities as second only to nuclear war. The broad spectrum of environmentally-induced human maladies only confirm this threat. Individual attempts to overcome these challenges may prove to be the only immediate relief in sight. Though the environment may not be improving, fortunately medical approaches dealing with the residual problems have. Reducing bio-toxic accumulation can be looked upon as powerful ammunition for a raging battle over which we may have at least some control.

National campaigns to "save-the-whales" and other endangered wildlife indeed have merit as today entire ecosystems are threatened. But considering the magnitude of the pollution problem in view of human survival, any effort to preserve the human species should not be underestimated.

For more information on the "Bio-Toxic Reduction Program[®]" and the medical management of chemical exposure contact HUMAN ENVIRONMENTAL MEDICINE, INC. 6386 ALVARADO CT., Suite *324 SAN DIEGO, CA. 92120 (619) 583-5865. [Address and telephone numbers no longer valid: Ed.]

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CASE HISTORIES: Bio-Toxic Reduction Program

Human Environmental Medicine, INC., San Diego, California

CASE #1: A 32 year old female was diagnosed as having lupus erythematosus at age 15, in May 1971. It has been noted that the onset of her condition was while living in Denver, Colorado, which is extremely polluted. Her chief complaints consisted of pain and swelling of her joints with 30% motion of hands and fingers, constant sinusitis, frequent ear infections, headaches, fatigue, extreme chemical sensitivities, pre-menstrual syndrome, and frequent vaginal yeast infections. Her medical history revealed eleven surgeries, including a sinovectomy of the right hand, hymenectomy for control of vaginitis, appendectomy, and a splenectomy related to lupus complications.

She was on Prednisone for several years, but this was terminated following the splenectomy. Serious ear, nose, throat problems followed the surgery. Routine administration of anti-biotics subsequent to her surgeries intensified the vaginal moniliasis.

In 1979 she suffered a lupus flare-up and was placed on Prednisone once again. After moving into a mobile home in 1980, she suffered from insomnia, back pain, myofacial syndrome, dizziness, tendonitis, itchy ears, muscle weakness and spasms, and an increase in fatigue, headaches, ear and sinus infections with some blurred vision, depression, and mood swings. She also became aware of more food and chemical intolerances.

By 1984, her over-all condition deteriorated drastically and she tried almost every anti-inflammatory drug available as well as gold shots, with no relief. She was encouraged to try an anti-cancer drug which had numerous side effects. At this point, she sought alternative modes of therapy.

In 1984, she was diagnosed as having Sjögren's syndrome, mucocutaneous Candidiasis, multiple allergies, hearing deficit, hypertension, and latent tetany. Following placement on a yeast free diet and Nystatin therapy, the patient began to experience more energy and was able to isolate offensive foods. She was also able to discontinue the Prednisone. A fat biopsy indicated elevated levels of chlorinated pesticides. She was then placed on the Bio-Toxic Reduction Program. She experienced joint swelling and pain while detoxifying which

ultimately subsided. Her headaches disappeared completely within a few days of therapy. She began hallucinating as a response from the release of body stored analgesics and anesthetics.

Upon completion of the program, which lasted 68 days, she had 100% motion of all joints, with no inflammation or soreness. The myofacial syndrome had cleared, she was experiencing no muscle spasms or tenderness. Follow-up allergy treatment, Gamma-globulin end thymosin injection therapy and "maintenance" detox therapy have been instituted as needed. Though she still has numerous environmental sensitivities, the detoxification therapy has allowed her to become active in church and community affairs and has considerably improved her ability to function on a daily basis. She is at least 90% better than her previous condition. She is currently on no medications.

CASE #2: This 30 year old married female, native of San Diego with two children was evaluated in 1983 for recurrent asthma, chest pain, headaches, dyspnea, congestion, and headaches. Childhood medical history is relatively unremarkable with the exception of asthma, allergies, and enuresis. Past history indicates that she had suffered from a vaginal yeast infection at the age of 18, which was associated with a vague "altered mental state," heart palpitations, and anxiety states. However, this was diagnosed seven years later as Candidiasis. Frequent visits to the emergency room resulted in prescriptions of Valium and referrals for psychologic counselling. As a senior in college, she was unable to continue her studies due to short attention span, poor concentration and retention. During the middle of her second pregnancy, she began to experience severe confusion, restlessness, and hyperactivity. Her yeast infections were aggravated by each pregnancy and appeared to have exacerbated her symptoms.

Shortly after the birth of her second child, she experienced prolonged bouts of depression, severe anxiety, feelings of unreality, light headedness, appetite changes, insomnia, memory problems, suicidal obsession, high fevers, nightmares and a constant sharp pain to the right side of the head. She began to experience tingling sensations of the scalp, seizure-like activity and temporary paralysis of the arms upon arising.

By age 25, she was incapable of caring for herself and her children without assistance. This patient had seen approximately 45 health practitioners within a ten year period. Earlier diagnostic impressions were that of a major depressive disorder/mixed personality disorder characterized by histrionic and borderline components.

In 1980, she was referred for admission to the county mental health facility due to prolonged suicidal states. Her condition was diagnosed between 1979 and 1981 as consistent with a schizophreniform or manic depressive disorder. She was treated accordingly with a combination of psychotherapy and several different psychotropic medications. The treatment failed to produce positive results.

In 1981, a nine month series of allergy shots regulated her menstrual cycle for the first time in eight years.

In 1982, she was evaluated by a specialist in Environmental Medicine, who found her extremely chemically sensitive. Laboratory studies confirmed abnormal immune parameters as well as an irregular EEG. Following his recommendations, removal of known chemical sources from the home, removing sources of natural gas, avoiding tap water, and using a filtering mask, produced dramatic and immediate relief of symptoms.

In 1984, a fat biopsy detected elevated levels of chlorinated pesticides as well as other minor levels of toxic agents. She underwent the Bio-Toxic Reduction Program for 43 days. A gradual improvement of her condition was associated with decreases in levels of stored toxicity as verified by a follow-up fat biopsy. While

detoxifying she experienced several days of asthma, "attacks of panic" similar to that of ten years prior, as well as severe irritability, depression, intense head pain, and restlessness. She also experienced the side effects of the numerous psychiatric medications which were terminated three years prior to the program.

Following the detox therapy, she no longer suffers from reoccurring asthma. The program improved her over-all sense of awareness, the chronic eye and "stabbing" head pain is gone; she has far fewer colds, fevers, ear infections, and flu-symptoms; and it has greatly improved her chemical tolerance threshold. Her ability to function consistently on a daily basis has dramatically improved. A follow-up EEG after completion of the program was completely normal. After being totally disabled for three years, she is now involved in a vocational rehabilitation program. It is now known that she lived within a mile from a county landfill for 18 years, which stored toxic chemicals for local industry for nearly twenty years. The San Diego County Public Health Dept. recently launched a study on the high incidence of cancer in that neighborhood. Though possible damage to the central nervous and immune systems still confine her to many dietary and lifestyle restrictions, this was one of the most significant breakthroughs in her health restoration. She is 80% improved since completing the program and has required no medication nor psychotherapy since appropriate diagnosis and medical management of her condition.

CASE #3: This 50 year old white female was first seen on May 16, 1984 complaining of constant pain and pressure in her sinuses radiating to the top of her head, as well as fatigue and post nasal drip. She became aware that her headaches were always worse at work. A history of her present illness indicates that she was relatively symptom free at the time she was employed as an accountant in a new three-story office building in May 1983. Her suite was the only completed office at the time. By October she noticed that she easily tired and developed dark circles under her eyes. She then developed upper respiratory infections and finally sinus pain. In December, her menstrual cycle ceased and by May 1984 her hormone imbalance caused a problem with her uterine fibroids. She began having symptoms daily. Physical examination revealed white coating on the tongue, suggesting Candidiasis as well as a notable myofacial syndrome. Prior to her coming to the detox center, she was placed on Estrogen, Erythromycin, Sudafed, muscle relaxants, and Sodium-selinate, however there was no improvement in her condition.

The patient was placed on candida therapy. Following the Bio-Toxic Reduction Program, this patient experienced an increase in energy levels, a tremendous improvement in her social life, is gradually becoming less sensitive to the chemicals in her environment. During the detoxification program, she re-experienced the symptoms which occurred at the onset of her illness.

In August 1984, the State Dept. of Occupational Safety and Health determined that the air conditioning system was 100% closed, causing the same air to recirculate, which was responsible for numerous respiratory diseases prevailing in that particular office.

CASE #4: This 54 year old white male was first seen at the Clinic on May 25, 1983. His chief complaints were headaches, difficult concentrating, cloudy thinking, depression, a 'tight band' around his head, neck and thoracic spasms, swelling in the fingers, and scrotal rash. His medical history revealed hypoglycemia, myofacial syndrome, mucutaneous Candidiasis, and extensive allergies. He did improve somewhat on the standard protocol for Candidiasis and allergy treatment. He also underwent chelation therapy prior to his visit to the clinic, however it was unsuccessful in relieving his symptoms.

This patient underwent the detoxification program and feels

95% better than before. Though he still reacts to certain foods and chemicals, his reactions appear less severe. The patient stated that professionally and socially, this program was the most important phase of his recovery. He noted that he has tripled his business since completion.

CASE #5: This 29 year old female was first seen on February 3, 1983 for allergy evaluation. She was on Nystatin therapy for Candidiasis and was improving. She was still feeling depressed (particularly premenstrual), lethargic, extremely chemically-sensitive, moderate food allergies, vaginal yeast infections, loss of libido, cystitis, abdominal bloating. Adherence to Candidia protocol resulted in an over-all improvement of her condition.

In August 1984, she began to experience lower thoracic and upper lumbar pain, tightness in chest and minor dyspnea.

At the conclusion of a 33-day, detoxification program, she was more alert, free of depression, and was feeling good "all of the time." She noted dramatic improvement in energy levels, and her back pain and muscle spasms had totally disappeared. This patient has improved 90% over her previous condition.

CASE #6: This 39 year old female was first seen on July 27, 1983, complaining of extreme fatigue, depression, hypoglycemia, hypertension, headaches, prolonged flus and colds, abdominal discomfort, marked confusion, and joint pain. She had polio at age 8. Family history indicates that her mother had lupus and numerous allergies. One sister has lupus. She had a high carbon tetrachloride exposure at age 25 and lost 50 lbs in one month's time following this incident. She has had difficulty since this time. There is evidence of liver damage related to this exposure.

The patient underwent 51 days of detoxification. Following the program, she no longer suffered from nausea, chest or neck spasms, and she feels her mind is sharper and clearer. After a period of disability prior to detox, she is now working full time.

CASE #7: This 52 year old male was first seen on March 8, 1984, complaining of chest tightness, wheezing, coughing, post nasal drip, nasal congestion, irritability, depression, digestive problems, craving of sweets, insomnia, and mood swings. Patient indicates that these symptoms began while working with a Kodak activator from 1973 to 1975. He worked with a considerable amount of electronic equipment such as TV cameras, lights, etc. which were in a poorly ventilated 'room. Allergy history indicates intolerance to petrochemicals and hydrocarbons such as perfumes, hairsprays, insecticides, and any scented products.

This patient was on detoxification therapy for 63 days. There was a 95% improvement in his condition and now feels that he is better able to cope with his highly stressful job.

CASE #8: This 25 year old white male was first seen on Jan 2, 1985 feeling pressure and soreness in his sternum, eye pain, nasal congestion, constant headaches, memory problems, difficult concentrating, and numerous chemical sensitivities. This patient was relatively symptom free prior to his employment for a pesticide service, three months prior. Safety precautions were not followed as he was to carry pesticides inside the cab of his truck and was not given protective clothing. The company physician advised him to remain working at his position despite his condition. A chlorinated pesticide screening test indicated elevated levels of Penta, in addition to minor levels of other pesticides.

Within three days of the Bio-Toxic Reduction Program this patient's headaches were gone. During detoxification, the patient stated that he could taste and smell the chemicals that he was previously working with. His mental confusion had cleared, his energy levels returned, and his chest pain had diminished and he was no longer having memory problems. Prompt treatment avoided the possibility of becoming totally disabled from this exposure. The

patient was able to find work immediately following the program, provided he avoided close chemical contact.

CASE #9: This 30 year old white male was first seen in this office on March 7, 1983. Patient complained of inability to concentrate, excessive fatigue, headaches, irritability, depression, lack of mental and physical energy, insomnia and nightmares. He has had difficulty with headaches for 22 years. These symptoms became considerably more severe in 1981 when he was stationed on an aircraft carrier. He states that the water tasted like it had gasoline in it. The water supply for the ship was pumped in using hoses that were used to pump fuel. From this time on he began to develop sensitivities to other chemicals. Following this time, he suffered from vertigo, post nasal drip, and daily headaches after drinking the contaminated water. A fat biopsy revealed elevated levels of PCB and DDE

After completing the Bio-Toxic Reduction Program he was able to tolerate far more chemicals than before. Someone entering the room with perfume did not cause him to lose his concentration as it would previously; he could also take his young child on an outing without the usual irritability and depression. He was even able to do some painting around the house, which he was certain he'd never be able to do again. Though still affected by food sensitivities, his reactions are less severe. This patient is approximately 85% improved

CASE #10: This 28 year old female was first seen on June 6, 1984, complaining of chronic sinus congestion, pressure in sinuses and temples, and marked depression. Onset of depression was at age 13. She had undergone psychotherapy since 1978 and was treated with various anti-depressants with no improvement, however with gradual increase in her depression. Various medications were causing difficulty with her motor functions as well as minor confusion and poor memory recall. She would frequently lose her balance and fall. Medical history reveals frequent yeast infections, pre-menstrual tension, food and chemical allergies, hypoglycemia. Her diagnosis was as follows: multiple allergies, myositis, latent tetany, exogenous obesity and severe mental depression. She lost 9 lbs on the candida diet and her depression improved as well. However, constant food cravings were still a constant threat. She still suffered from confusion and feelings of frustration and anger.

After completing the detoxification program she felt much more energetic and required far less sleep. She was able to run for nearly a half hour each morning. The continual feelings of sadness and hopelessness no longer persisted. Improvements in concentration were phenomenal; she was able to work between 6-9 hours without any problems. The patient no longer required the anti-depressants and all motor skills returned since discontinuing the medications. Though she is still working on her weight problem, the obsession with food is far less severe following the program.

This participant wrote in a summary letter, "I am a different person since completing the program. I feel I am finally getting well. The difference is like night and day. It literally saved my life."

CASE #11: This 40 year old white male was first seen on October 25, 1984 with chief complaints of abdominal pain, pyrosis, chest congestion, headaches, mood changes, memory impairment, nausea, insomnia, and generalized malaise. These symptoms were directly related to chemical exposures where he had been employed in service and sales of marine equipment until August of 1982. Seventy percent of his work involved repairing inflatable boats. It is noted that this patient was free of any neuropsychological problems before his exposure. He was routinely exposed to Toluene and Benzene, two of the twenty-nine volatile compounds, including various hydrocarbons, paint thinners, epoxy thinners, gasoline, epoxy resins, ammonia, varnish, latex, and chryinal acrylic adhesive. The

containers were not labeled as to contents or dangers of contact. The company owner failed to follow through with an initial agreement to provide the necessary safety equipment and required air filtration system. Initially the symptoms occurred only intermittently approximately once or twice per week beginning in April 1983.

By May 1983, he was working in excess of fifty hours per week, however only minor respirator equipment was provided. It was not until Sept. 1983 that he associated the severity of his symptoms to the days he was heavily exposed and that he felt some relief on weekends. Finally, he was able to make specific correlations to his occupational exposures. By October, the symptoms progressed in intensity and frequency and he felt ill most of the time.

In January 1984, he was no longer able to work due to nausea, vomiting, disorientation, memory impairment, and severe anxiety, depression, chest pain, congestion, and shortness of breath. A gastroenterologist determined that he had a severe reflux esophagitis thought to be caused by the toluene exposure. He also felt that the toluene was responsible for psychiatric and neurologic deficits. Examination revealed cerebellar dysfunction. Referrals to other specialists led to admission to the Alcoholism/Chemical Dependency Center in January 1984, where he was treated like a drug addict.

A pulmonary specialist diagnosed his condition as 'occupational asthma' related to an organic solvent. Subsequently a neurologist determined that his mental depression was not occupationally caused, but that the asthma was likely to be environmentally-induced. The patient was placed on numerous psychiatric medications, which did not relieve his symptoms. His chemically-induced depression had left him dangerously suicidal.

Because Toluene is fat soluble it accumulates in body fat with repeated exposures. The primary toxic action of this compound is on the central nervous system. Results of a General Volatile Screening Test revealed extremely high levels of Toluene measuring 39 ppb (of which "0" is the norm). There was also evidence of other body stored toxic levels.

This patient began the Bio Toxic Reduction Program in April of 1985 and completed the program in 52 days. He exuded very strong chemical odors while detoxing in the sauna. His headaches, respiratory difficulties, memory and thinking problems, personality disorder, and over-all health has improved by 85%. The suicidal feelings dispersed upon completion of the program. He attributes detox with saving his life. By the 29th day into the program, the serum chemical analysis returned showing no toluene detected whatsoever. He now feels physically able to return to work and is currently seeking employment in a 'safe environment'.

CASE #12: This 46 year old female came in with a demyelinating process of the central nervous system, possibly secondary to Sodium Pentothal anesthesia, as indicated by history. She had become paralyzed 23 years ago when she was given Sodium Pentothal at the delivery of her second child. A form of paresthesia remained for over 8 years following. She was told she was allergic to Sodium Pentothal, therefore wore an alert bracelet.

In January of 1982 she was again given Sodium Pentothal, even though the physician was informed of her former reaction. The paresthesia which resulted from this exposure has been far more damaging. She describes the bilateral dysasthasias of her hands as "feeling like they are coated with sandpaper" -- which impairs her fine movements. During her initial 21 days on the Bio-Toxic Reduction Program she was able to once again "hold a pencil" and even "write, with a bet-

ter than first grade appearance." She can now button her own clothes, do her own hair, and is beginning to play the piano again.

The Neuropsychiatric Institute in La Jolla agreed that her problem was most probably "Peripheral neuropathy, with no indication of Multiple Sclerosis." They were also impressed with the marked progress she has made since starting the program. (It is important to note that the abnormal EEG tracings that have been reported on several patients prior to the Bio-Toxic Reduction Program, all become normal following the program.)

CASE #13: This 26 year old female complained of aching feet of three years duration. Pain on the bottoms of both feet of two years duration. Pain below ankles of 16 months duration and soreness of the achilles tendons of one month's duration. Patient was seen and treated by numerous physicians, all of which felt she might be developing bilateral plantar fascial tears. Neurology evaluation was reported as negative. Her environmental history indicated the inside of her home was sprayed frequently for flea control. History also indicated developing parasthiasis of her feet. Physical examination revealed a well nourished white female in fair health. Abnormalities noted were evidence of possible candidiasis in her mouth, cervical and inguinal adenopathy, myofacial syndrome and decreased dorsalis pedis pulses.

Laboratory evaluation revealed normal SMA 24, CBC, and urinalysis. Urine for formic acid was negative. Anti-candida was reported and negative. Cellular report was abnormal with an increase of lymphocytes, OKT11, OKT4, and OKT8 cells and a decrease of Surface IG, natural killer cells and total B cells with a H/S ratio of 1.5. The "Serum" General Volatile Screening Test revealed p.p.b. of Toluene 16.4; Ethyl benzene 10.9; Xylenes 42.1; Trimethylbenzene 1.2; Chloroform 1.0; 1,1,1 TriCiethane 4.3; Trichloroethylene 0.3; and Dichlorobenzenes 1.8. p.p.b. of Chlorinated Pesticide Screening Test revealed DDE 11.7; Heptachlor Epoxide 0.5; trans-Nonachlor 0.2; and HCB 0.6.

Final diagnosis: 1. Immune Deficiency Syndrome secondary to Toxic levels of DDE, Aromatic and Halogenated Hydrocarbins. 2. Myofacial Syndrome. 3. Paresthesia of feet 4. Cervical and Inquinal Adenopathy.

To this date the patient hasn't undergone therapy, she is waiting approval from Insurance Co. The chemicals she is carrying can safely be removed by the Bio-Toxic Reduction Program.

CASE #14: This 66 year old patient complained of numbness of hands, arms, legs and feet that started about one year before his first visit. He had paresthesia of fingers, left forearm and increased sensitivity to hot and cold with tremors. He had undergone neurological evaluation including nerve biopsy which revealed "degeneration from an unknown cause." Various therapies were used with no improvement, including 40 chelation treatments, therefore he was referred to us for the Bio-Toxic Reduction Program.

Occupational history revealed chronic low exposure to volatile hydrocarbons. History also revealed exposure to Clordane.

Laboratory evaluation revealed a normal CBC and SMA 24 other than an elevated BUN (28). The Anti-Candida report was within normal limits. The Immune Profile was abnormal with the following increased: WBC 10600, and natural killer cells 24%, and the following decreased: Lymphocytes 11%, Total T Cells (OKT11 921 per cc.), and Total B cells 105. H/S ratio was 1.2 This indicates a relative and mild absolute lymphopenia

resulting in a mild decrease in the absolute number of T and B cells. The abnormal H/S ratio is associated with diminished in vitro T cell Function. The General Volatile Screening test revealed Toluene 0.3 p.p.b. (Serum), Ethyl benzene 0.3, Xylenes 0.3 and Tetraclorethylene 0.3. The Chlorinated Pesticide Screening Test revealed: Dieldrin 0.3 p.p.b. (serum), Beta BHC 0.7, DDT 0.2, DDE 10, Heptachlor 0.8, trans-Nonchlor 0.4, and HCB 0.7.

Evaluation led to the diagnosis of 1) Generalized Arteriosclerosis, 2) Myofacial Syndrome, 3) Polyneuropathy of Extremities, 4) Stasis Dermatitis of left ankle, 5) Chemically Induced Immune Deficiency Syndrome.

Patient was placed on the Bio-Toxic Reduction Program and Electro-Acuscope therapy which resulted not only in a general improvement of his general symptoms, but marked improvement in his peripheral neuropathy including return of his strength and grip to normal. His tremor has markedly improved as well as his dexterity. The circulation to his feet has improved to where the skin color is essentially normal and the stasis dermatitis has cleared. His neurologist has released him from further care. Patient is still chemically sensitive, however this is gradually improving, and he is back working part time and enjoying every minute.

CASE #15: This 47 year old Caucasian female was first seen in July of 1985 following acute and chronic insecticide exposure which began in 1977 when a helicopter passed over her house so low that she thought it was crashing and she ran outside only to be drenched with pesticides which she did not wash off her body for approximately one hour. From this time on the spraying occurred approximately every two weeks until a Court injunction was granted which stopped the spraying.

Her symptoms gradually became more severe after each exposure. Her symptoms at the time of her first visit consisted of extreme sensitivity to any type of chemical exposure such as cigarette smoke, petrochemical derivatives, insecticides and auto exhaust fumes. On exposure, she develops vertigo, a dry throat, muscle spasms, paresthesia, and weakness of the lower extremities. At night she develops not only weakness, but myoclonic twitching. In the past she has passed out when exposed to cigarette smoke. Dyspnea develops following exposures. She develops headaches in the mornings which are dull in nature. The myoclonic twitching is made worse with each exposure.

Laboratory evaluation revealed the CBC and SMA 24 to be basically normal. Urinalysis was basically normal. Immune Profile abnormal with a decreased hemolytic complement to 0 (normal 70-150), an increased lymphocyte count to 47% and a decreased natural killer cells to 10%. The H/S ratio is decreased to 1.5. On the Volatile Screening Test the Serum showed p.p.b. of Toluene 0.3 - The Chlorinated Phenols measured 8 p.p.b. Penta - 2,4, D was 3.6 and 2,4 DB 5 p.p.b.; The Chlorinated Pesticide Test showed DDT 0.3 p.p.b., D.D.E. 11.7 p.p.b., Heptachlor Epoxide 0.3 p.p.b., trans-Nonchlor 0.4 p.p.b., and HCB 0.5 p.p.b. Chlorinated Pesticides Test on the foliage on his property revealed DDE, DDT, DDD, PCP, Dieldrin, DHC, Lindane, HCB, Endrin, and HE.

This evaluation led to the final impression of: 1) Chemically induced immune deficiency, 2) Peripheral neuropathy, 3) Pesticide poisoning, chronic, 4) Latent tetany, 5) Candidiasis, 6) Depressive reaction to physical illness.

This patient has not started therapy yet, but is scheduled. This case is an excellent example of pesticide poisoning and the disability that follows.

CASE #16: This 30 year old white female had a nine month history of what patient thought was flea bites on legs. History revealed patient hadn't felt well for approximately 10 years, with gradual onset of flu like symptoms, headaches, muscle twitching and spasms (severe at times), fatigue, depression, irritability, highly emotional, occasional difficulty thinking and remembering, and chemical sensitivity with recent onset of a generalized allergic pruritis especially on face and neck.

Patient was first treated with standard allergy evaluation and therapy with no improvement other than temporary with steroids. Further history revealed that her symptoms became worse after moving into her present home, therefore laboratory evaluation for fat stored chemicals was performed on her which revealed a high level of "Penta."

Her home was checked and though there was residual penta in the home it was felt, by the laboratory, this amount should not be a contributing factor. With further investigation it was discovered the town in which she had lived as a child has a potential problem. The town has been noted as having levels of "toxins," and at this time most of the classmate she had, either have a serious illness, or had already died from "cancer." Several of her close friends died in their 20's of cancer. There has also been a number of miscarriages as well as stillbirths. Further investigation is being done on the town.

Laboratory evaluation: EKG, CBC, SMA 24, Thyroid profile and Urinalysis were within normal limits. Mineral Analysis was abnormal with some deficiencies but no toxic mineral levels noted. Anti Candida report revealed IgG 288, IgA 444 and IgM 286 (normal under 100). Serum tests for Chlorinated Phenols: Penta 49 p.p.b.; General Volatile: Toluene 0.6 p.p.b., Ethylbenzene 0.4 p.p.b., Xylenes 1.0 p.p.b., Trimethylbenzenes 3.5 p.p.b., 1,1,1, Trichlorethane 0.3 p.p.b., Chlorinated Pesticides: DDE 2.1 p.p.b., Heptachlor Epoxide 0.3, p.p.b., and HCB 0.2 p.p.b.

The patient was placed on the Bio-Toxic Reduction Program and showed almost immediate, improvement of her severe pruritis and generalized dermatitis. Her headaches became worse before they finally cleared. At approximately 21 days of therapy the patient noted an increase in her muscle twitching and after a short time in the sauna the Jacksonian seizure activity would start. At times this was severe requiring medical attention before the seizures would subside. All laboratory values were normal during these seizures. Myoclonic muscle twitching, Petit Mal, Jacksonian and occasionally Grand Mal Seizure activity are the "Hallmark" of "Chlorinated Pesticide Poisoning." (Chlordane has been the most common cause in our patient load.)

It was necessary to discontinue her program from time to time until the seizure activity would subside. It was noted that during her seizure activity her darkfield cell analysis revealed crystals which were believed to be evidence of a chemical in her blood. This has not been observed at other times in her blood. Her Penta level, when starting the program was 49 p.p.b., at three weeks 20 p.p.b., and none by the end of the fourth week. She is far from being free from any problems, however, she is markedly improved and there are fewer "bad days" now. The headaches are only occasional (usually stress or exposure related). The dermatitis and balance of symptoms have totally cleared. She will remain under maintenance therapy due to her weakened immune system. She is still very sensitive to chemical odors and mold exposure. With time these symptoms will become less noticeable until they disappear.

CASE #17 This 40 year old Caucasian female was first

seen on Oct. of 1983 with a 20 year history of progressive symptoms as follows: Menstrual irregularity, premenstrual tension and cramping, constant vaginal candidiasis, frequent urinary tract infections, urethritis, muscle aching and cramping with spasms, numbness of hands and feet at night, chemical sensitivity and inability to perform even light house work. Symptoms were gradual in onset becoming more severe yearly. Patient became unable to perform even light housework shortly following the tenting and treating of her home with Chlordane in 1980.

Patient had numerous evaluations and therapy none of which diagnosed her condition, or helped her until in 1983 she was treated at Meadowlark where she was placed on a fast, followed by a vegetarian diet which offered some improvement. Their evaluation noted elevated copper and mercury levels. Laboratory evaluation was normal for CBC, SMA 24, thyroid profile and urinalysis. her fungal hypersensitivity panel revealed IgE normal, but IgG 223, Fusarium 498 and Phoma 231. (above 100 elevated) Candida anti-bodies were IgG 359; IgA 146 and IgM 65. It was recommended she have pesticide levels performed, but due to finances this was deferred. Patient was placed on a yeast free diet and anti-candida program which helped her recurring urinary tract infections and candidiasis, however her general condition was not improving, therefore started allergy therapy which also failed to make any improvement. Patient continued to require frequent antibiotics for urinary tract infections and noted that frequently the eating of beef, chicken or fish was followed by return infection within 2- 4 days.

On Oct. 18, 1984 she was started on the Bio Toxic Reduction program. Her CBC, SMA 24, EKG and urinalysis were within normal limits with exception of uric acid of 8.3 and CEA 6.8. Laboratory was following a three week Ultrabalance diet. Pt. declined the Chlorinated Pesticide Testing therefore it was not done at this time.

She almost immediately began to feel better in spite of many manifestations. The myoclonic muscle twitching and Jacksonian spasms were becoming more frequent, therefore she requested the Chlorinated Pesticide test be performed. This was drawn on Nov. 12, 1984 and revealed: Dieldrin 0.1 p.p.b., Beta-BHC 0.2, DDT 0.3, DDE 20.4, Heptachlor Epoxide 0.4, trans-Nonachlor 0.2, and HCB 0.2. Patient developed a strong odor of chlorine in spite of all laboratory being normal and had a marked increase in myoclonic muscle twitching and Jacksonian spasms therefore program was temporarily discontinued.

Condition slowly improved, however on Dec. 8 she called after developing muscle spasms again after exposure to chlorox when cleaning sinks again even though advised not to do this.

On 3-14-85 the Chlorinated Pesticide screening test was repeated which revealed: Dieldrin 0.2 p.p.b., Beta-BHC 0.2, DDT 0.3, DDE 10, Heptachlor Epoxide 0.3, trans-Nonachlor 0.1, and HCB 0.4. This indicated the BTR program was not completed, however the elevated DDT also indicated a possible continuing exposure. A General Volatile Screening Test revealed Xylene 0.5 p.p.b. and Tetrachlorethylene of 3.2. This is very high considering the time on the BTR program as these usually are quickly reduced and eliminated.

On 6-26-85 the Toluene was 0.3, no Xylene measured and the Tetrachlorethylene was reduced to 0.5.

On 8-2-85 a repeat Chlorinated Pesticide Screening Test revealed further exposure: Beta-BHC 0.4 p.p.b., DDT 0.5, DDE 20.5, Heptachlor Epoxide 0.6, trans-Nonachlor 0.3, and HCB 0.9. These levels may have increased due to exposure to pesticides being used in the State Parks. On at least two occasions

the area was sprayed just prior to their arrival at the campsite. Their vacation took them across the States, and they slept out in State Parks most of the trip.

Patients' condition gradually improved, however, the urinary tract infections and vaginal yeast infections increased as toxic pesticides levels became elevated again. Patient was placed on a fast again in June of 85 at Meadowlark following which she developed signs of adrenal exhaustion and had to be treated accordingly.

In Oct. 85 the patient completed 2 more weeks of BTR therapy, however toward the end her myoclonic muscle twitching and Jacksonian spasms returned. The laboratory work was essentially normal, however this time it was noted that her serum phosphorus was decreased to 1.9. Seizure activity was relieved in the sauna. Her history clearly indicates that this activity slowly started after her home was treated with Chlor-dane in 1980.

On Nov.11, 1985 a repeat Chlorinated Pesticide Screening Test revealed a decrease in levels to: Aldrin 0.1, Beta-BHC 0.1, DDT 0.2, DDE 7.6, Heptachlor Epoxide 0.4, trans-Nonchlor 0.1, Endosulfan I- 0.1, HCB 0.4. Fat stored chemicals come out in the same order in which they are originally stored which explains a variation in testing as BTR progresses.

Patient is doing extremely well now. Though not totally recovered, she is now able to do her house work, shop, and is not having the recurring urinary tract infections or yeast infections. They have had their home tested and discovered this is not the exposure source. They are using bottled water and organically grown foods. She will be rechecked to insure she is not being re-exposed in the near future.

CASE # 18: This 33 year old Caucasian female from Imperial County came in with multiple complaints. She is very concerned over the "New River" that flows through Imperial County. There are several towns in its path, they happen to live in one of them. From El Centro (population approximately 24,000), Brawley and Holtville (population approx.7000 each), Calipatria (population 2000) Niland (population 1000) "New River" goes directly into the Salton Sea. The South end of the Salton Sea is dark and murky where the water enters. The other end is relatively clear. There are fish in this water, which are caught and eaten by the local people. The river originates in Mexico which gives them no control over the use of this "River." It is known to contain Raw Sewage, Raw Chemicals etc. There have been several attempts to put up some type of "Filter system - so far none effective.

An officer from the Police Department in Calipatria fell into the water 2 years ago, and has not been well since. He told them "The River holds all the diseases of the world." Also they report that any animal drinking from that water has died. The children in the area think the water has "Snow" on it, for there is "Foam-floating down the river all the time." The School children have constant colds and infections. It is reported that many children in the school are using inhalers in order to breath. There are "reportedly" several cases of "Crib Deaths" or SID each year. Patient's main complaint was that of constant "Flu like symptoms," headache, and a fear of having a complete "Breakdown"... She is in the process of moving, and starting the Bio-Toxic Reduction Program.

Laboratory findings from 12-3-85 showed mild chemical hepatitis; "Humoral report shows the percent of T suppressor/cytotoxic is at the upper limit of the expected range. Expansion in this T cell subset may be seen with antigen challenge." The General Volatile Screening Tests with serum levels in p.p.b.

as follows: Toluene .6; Ethylbenzene 5.1; Xylenes 23.1; Chloroform .9; Dichloromethane .6; Tetrachloroethylene 1; Dichlorobenzenes 2.7 - The Chlorinated Pesticide Screening Test: Beta-MC .1; DDT .1; DDE 3.4; Heptachlor Epoxide .4; Trans-Nonachlor .1; HCB .2.

CASE #19: This 67 year old patient from Santa Marie, California was referred to me by a Physician at the Sansum Medical Clinic with what he felt was "Chemically induced Cirrhosis of the Liver." Unfortunately this patient is too far along for us to give her any help. We hate to report we are too late to reverse any of the damage that has been done. The outlook is very grim. When her laboratory work was done, we received immediate calls from the laboratories regarding the ranges. Copies of all findings are enclosed, as well as the ones shown here: General Volatile Screening Test Serum levels in p.p.b: Benzene .3; Toluene 55.6; Ethylbenzene 27.1; Xylenes 178.2; Trimethylbenzenes 1.4; Chloroform 1.1; Dichloromethane 2.9; 1,1,1-Trichlorethane 15.4; Tetrachloroethylene 3.7; Dichlorobenzenes 14.9. This report was given to Senator Wilson, and prompted a visit to the area. A complete investigation is under way at this time in regards to the potential danger.

CASE #20: This five year old (hyperactive) male child was seen for evaluation following the home being treated for fleas with DURSIBAN/DIAZINON on two occasions. The mother reported she had taken her son to several Physicians for his constant "twitching" and was told this was "normal." She was not convinced, since he had never had any of these symptoms until after the home was treated for fleas. She also reported the animals became ill, and one died. The dog developed tremors and had to be put on "allergy medication." The dog improved when they moved to another location, but became ill after a visit to the Pet Hospital and exposure to flea dip area.

Mother reports almost constant muscle jerking when he sleeps. He also has what appears to be Petit Mal. All initial laboratory findings were normal, including a cholinesterase. However, on 10-22-85 the General Volatile Screening Test showed the following serum levels in p.p.b.: Toluene 23.8; Ethylbenzene 6.6; Xylenes 111.4; 1,1,1-Trichlorethane 7.2; TetraChlorethylene 1.9.

The whole family started on the Bio-Toxic Reduction Program. In less than 30 days a repeat General Volatile Screening Test showed only two low levels remaining: Xylenes 1.2; TetraclorEthylene 0.4. Patient is now sleeping quietly through the night. Is less hyper and easier to handle.

CASE # 21: This 30 year old mother of the above child was having difficulty dealing with not only her son's problems, but her own constant headaches and flu like symptoms. She also was troubled by Petit Mal and Jacksonian Seizures on occasion. The General Volatile Screening Test showed the following: Toluene 18.6; Ethylbenzene 5.1; Xylenes 90.6; 1,1,1-TriClEthane 6.0; TetraclEthylene 1.5. There were also 1.7 p.p.b. of PCB's.

Within less than 30 days the repeat GYST showed the following: Toluene 0.5; Xylenes 0.3; Styrenes 0.7; Chloroform 1.6; Dichloromethane 0.3; 1,1,1-TriclorEthane 0.4; TetraclorEthylene 0.6. Nothing else was detectable.

These cases demonstrate the ability to remove extremely high levels of Toxins, safely. We will have a re-evaluation on these cases in the future. At the last visit they were both doing well.

CASE #22: This 28 gear old white female was first seen on May 7, 1985. Her chief complaint was intermittent swelling of joints of fingers. Onset six years ago. Occasional prob-

lems with toes and right knee.

The onset would usually start with a tiny red dot at the joint of one or more of her fingers. Within 24 hours the joint, or joints would be swollen and painful. She has been to specialists in Internal Medicine, Orthopedics, Endocrinology and Rheumatology. All laboratory work has been within normal limits. No evidence of arthritis. Routine laboratory work at our office produced the same results. The Immune Profile indicated the T cells diminished, the Anti-Candida was elevated in the IgG (191) and IgM (253), and the Antinuclear titer was positive. She was started on the Anti-Candida Program and seemed to respond favorably. The joints were less "stiff" and there was no noticeable swelling. The sensitivity to certain chemicals and foods was increasing.

On the third of December she came in with a severe flare of both hands and feet. The proximal joints on three fingers of the right hand were triple in size, blueish in the center extending half an inch on either side of the joint ending in bright red. The left hand was similar, but lesser in involvement. A serum biopsy was scheduled followed by an injection of Precortin and Decadron. The injection had no effect on the inflammation. The General Volatile Screening Test brought some alarming results. Toluene 59.1 p.p.b.; Ethelbenzene 47.1 p.p.b.; Xylenes 256.9 p.p.b.; Chloroform 3.7 p.p.b.; 1,1,1-Trichloroethane 16.2 p.p.b.; Tetrachloroethylene 5.8 p.p.b.; Dichlorobenzenes 8.7 p.p.b.. The Chlorinated Pesticide Screening Test showed .1 p.p.b. of DDT indicating slight recent exposure. DDE 1.1; Heptachlor Epoxide .4; trans- Nonachlor .1 and HCB .3 p.p.b.

She has just started the Bio-Toxic Reduction Program and we shall watch with interest as she proceeds through the program. Pictures will be taken periodically to further evaluate the progress.