

## THE INTERNATIONAL CONFERENCE ON CHEMICAL CONTAMINATION AND HUMAN DETOXIFICATION

In the last 50 years, man-made chemicals and drugs of abuse have spread throughout the world at almost inconceivable rates. In the United States alone, it has been estimated that six trillion pounds of industrial chemicals are used each year—a rate of nearly 12 tons for every man, woman and child in the country. The abuse of prescription and street drugs is epidemic, worsened in Eastern Bloc regions by the social upheaval following the end of the Cold War. In developing countries, where 90 percent of Earth's pregnant women and children under 15 live, hazardous chemicals—including pesticides banned in the developed world—are used and stored as if they had no potential to harm.

Less than five percent of the approximately 70,000 synthetic chemicals in current use have been fully evaluated to determine their long-term ability to cause adverse effects on human health. But the final destination of many is not air, soil or water, but the internal environment of the human body. Residues of chemicals and drugs accumulate in body tissues, particularly adipose (fat) tissue.

An increasing body of research links the presence of these residues to health effects including cancer, immune suppression, reproductive difficulties and nervous system damage. In addition, chemicals stored in the fat of pregnant women may cross the placental barrier, exposing the developing fetus and embryo. Evidence is emerging that even a single such exposure can result in permanent damage that may not be evident until adulthood.

Despite the magnitude of these problems, and the urgent necessity to reduce body burdens of foreign chemicals, only one procedure to eliminate fat-stored chemicals from the body has been developed, widely implemented in clinical and field settings throughout the world, studied and reported on. The detoxification regimen developed by L. Ron Hubbard

has been established to be both safe and effective.

Papers documenting its use to reduce body levels of foreign compounds such as PCBs, DDT, HCH and residues of cocaine and marijuana have been published by the World Health Organization's International Agency for Research on Cancer, the Royal Swedish Academy of Science, the American Public Health Association, the National Institute on Drug Abuse, UNESCO, the Society for Occupational and Environmental Health and others. [See Appendix: References]

The program which Mr. Hubbard developed in the 1970s combines exercise, sauna, oil and vitamin supplements in a precise regimen which mobilizes chemical residues stored in fat and facilitates their excretion through several routes, including sweat, sebum and urine. He predicted that the program might also reduce body accumulations of radioactive particles, a possibility examined in recent clinical observations and tests.

In 1994, a diverse gathering of experts—environmentalists, writers, drug abuse counselors, physicians and other health specialists—met in Los Angeles to attend a colloquium on detoxification. Representatives were present from the U.S., Canada, Great Britain and the former Soviet Union.

Among the items on the agenda was an exploration of how those present could use their combined expertise to help meet the growing international demand from professionals in the fields of occupational and environmental medicine and drug rehabilitation for information on Mr. Hubbard's detoxification procedure. Attendees resolved to establish themselves as an Association of Detoxification Specialists, with their first major initiative being the sponsorship of an International Conference on Human Detoxification.



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*An international group of physicians, scientists, researchers, writers, environmentalists, drug abuse specialists and government representatives met in Los Angeles, California for the International Conference on Chemical Contamination and Human Detoxification. They met to assess the extent of human contamination by pollutants, hazardous chemicals and drug residues and discuss the potential consequences of these exposures.*



*In the absence of detoxification, both chemical toxins and drug residues may remain in body tissues indefinitely, with a wide range of effects on body organs and systems. Drug rehabilitation counselors Viktor Zhurbijn (left) and Lisa Kleinhuis of Holland discuss these similarities with Conference Chair David Root, M.D., an occupational medicine specialist and former U.S. Air Force flight surgeon.*

These plans were realized in December 1995. An international group of physicians, scientists, researchers, drug abuse specialists, writers, policy analysts, environmentalists and government representatives met in Los Angeles, California. Participants shared a desire to examine both the scope of human contamination and the benefits of integrating detoxification into efforts to help victims of occupational chemical exposures, environmental contamination, radioactive accidents and substance abuse.

The conference was perhaps the first to consider the effects of chemical exposures and drug abuse as related matters. It provided a unique opportunity for professionals from varied disciplines and geographic regions to share their findings regarding the Hubbard program and discuss its applications.

This publication presents edited transcripts of the keynote addresses of the conference, which ranged from a historical perspective on the subject of chemical toxicology to cutting-edge research regarding exactly how drug residues in the body prolong addiction. Summaries of the panel presentations are also included. These provide important insights into the components of the Hubbard detoxification procedure and the ways that it has been utilized by occupational specialists, clinicians and addiction specialists.

In Russia, millions of citizens have suffered chemical and radiation exposures sufficient to harm their health and significantly shorten their lives. A briefing on the Russian medical establishment's efforts to enlist the help of Western detoxification specialists to address these problems was a high point of the conference.

Chemical contamination knows no boundaries. Chemicals such as DDT and PCBs can now be found in the fat and breast milk of persons living throughout the world. Recent reports have noted severe chemically-caused illness among the Inuit people of Alaska, who live in a seemingly pristine Arctic environment, remote from sources of pollution. Pesticides and industrial chemicals reach (and harm) them nonetheless, in the fat of the fish that make up their diet.

Reducing the burden of toxic man-made chemicals in air, soil, water and the food

chain will be the work of decades—thousands of years in the case of some radioactive contamination. The pace at which national and international agencies are currently working to resolve these problems offers little hope that harmful exposures can be fully prevented in our lifetimes, or even the lifetimes of our children.

The Hubbard detoxification procedure provides a means to address the consequences of chemical contamination on an individual-by-individual basis. The financial, training and physical requirements for implementing the program are within the reach of developed and developing countries alike. While vital efforts to reduce environmental contamination move forward through public policy discussions and international negotiations, this program offers a means for hundreds of millions of persons throughout the world to rid their bodies of foreign chemicals. ■

—The Editors

# THE INTERNATIONAL CONFERENCE ON CHEMICAL CONTAMINATION AND HUMAN DETOXIFICATION

December 1-2, 1995  
Los Angeles, California

Sponsored by: Foundation for Advancements in Science and Education (FASE)

Government Technology

The Association of Human Detoxification Specialists

Association for Better Living and Education (ABLE)

## CONFERENCE CHAIRMAN



**David Root, M.D., M.P.H.:** Dr. Root is a Board-Certified Occupational Medicine specialist. Prior to entering private practice, he served the United States Air Force as a flight surgeon for more than 20 years. In 15 years as Medical Director of an occupational medical facility in Sacramento, California, he has supervised the

detoxification of more than 2,000 individuals suffering from the effects of occupational or environmental exposure to toxic chemicals. He has been a co-investigator in a number of published studies on the use of detoxification in treating workplace exposures.

## EXECUTIVE DIRECTOR



**Bob Graves, M.S.:** The President of Government Technology, Mr. Graves has participated as a co-investigator in several detoxification studies. Among these was a landmark study of worker contamination in Slovenia (formerly Yugoslavia), a cooperative effort between scientists

in America, Switzerland and Slovenia. Mr. Graves is a Senior Associate of the Foundation for Advancements in Science and Education (FASE).

## PROCEEDINGS EDITOR



**Carl Smith:** Senior Editor, Foundation for Advancements in Science and Education (FASE). Mr. Smith is also director of the FASE Pesticide Project. Over the last fifteen years, FASE has published a wide range of environmental reports and research. Since 1991, the Pesticide Project has provided the most complete

public record information available on exports of banned and other hazardous pesticides from U.S. ports to developing countries. FASE research has been used in environmental and government publications throughout the world, and Mr. Smith has testified before export reform hearings in both the U.S. Senate and the U.S. House of Representatives.

## ABOUT THESE PROCEEDINGS:

A verbatim account of the formal and informal discussions which took place during the two days of the International Conference on Chemical Contamination and Human Detoxification would require several volumes. This publication represents an attempt to convey the ideas and issues which formed the core of a unique conference involving hundreds of delegates from several continents. In this spirit, the keynote speeches and panel presentations are presented in edited form.

Throughout this publication, the term "detoxification" is used to designate the procedure for reducing body burdens of foreign chemical and drug residues which was developed by American researcher and writer L. Ron Hubbard. This procedure is described in detail in

his book, *Clear Body Clear Mind*. Since its release, it has been the subject of numerous studies and research papers. A listing of these writings, including summaries, can be found at the back of these proceedings.

The conference was an outgrowth of tremendous interest in the problem of human chemical contamination. Researchers and libraries around the world have requested copies of conference presentations and keynotes. It is our hope that this publication will provide a record which will serve as a valuable reference for those actively pursuing solutions to the problem of environmental contamination and its effects on humans.

## Panelists and Presenters



**Robert B. Amidon, M.S., J.D.:** A graduate of the U.S. Naval Academy and Georgetown Law School, Mr. Amidon is a retired Commander in the U.S. Naval Reserve, which he served in high-level international duties for 14 years. He served the U.S. Department of Justice as an Assistant U.S. Attorney. He is currently in private practice, with specialties including

environmental and worker's compensation law.



**James Barnes, C.H.P.:** Mr. Barnes is the Radiation Safety Officer for the Rocketdyne Division of Rockwell Aerospace. He has 20 years experience in reactor and industrial occupational radiation protection. He is certified by the American Board of Health Physics and is registered with the National Registry of Radiation Protection Technologists. He is a co-investigator

for current research examining the use of the Hubbard program to reduce body levels of radioactive particles.



**Shelley Beckmann, Ph.D.:** Dr. Beckmann is the Research Director for Narconon International. She has been a co-investigator on a number of studies of the Hubbard program, including recent work in collaboration with Forest Tennant, M.D., which has documented the release of drug residues in the urine of addicts undergoing detoxification treatment.



**Yevgeniy Bryun, M.D., Ph.D.:** Dr. Bryun is President of the Philanthropic Foundation for Protection of the Psychic Health of Children in Moscow. A specialist in the field of drug addiction and rehabilitation, Dr. Bryun is actively involved in programs to address the rising rates of drug abuse in Russia.



**Clark Carr:** Executive Director from 1985 to 1995 of the Narconon Professional Center, a drug rehabilitation center in Los Angeles utilizing the detoxification protocol of L. Ron Hubbard. Mr. Carr participated with Dr. Shelley Beckmann and Dr. Forest Tennant in their seminal study of cocaine and Valium detoxification through the Hubbard regimen. With

John Duff of Narconon International, he is currently co-authoring *Ending Addiction to Alcohol and Other Drugs* (working title).



**John Duff:** President of Narconon International, Mr. Duff has worked for more than 25 years in the field of drug rehabilitation. He is the co-author of *The Truth About Drugs: The Body, Mind and You* and the forthcoming *Ending Addiction to Alcohol and Other Drugs*, currently scheduled for release in late 1996. He has made

Narconon drug-prevention presentations in thousands of classrooms around the world, personally reaching over a quarter of a million students.



**David Gaiman:** As Chairman of Human Detoxification Services International, Mr. Gaiman has responded to requests from the Russian medical establishment for help in implementing detoxification to address the effects of environmental chemical exposures and drug abuse. He has directed a wide range of international humanitarian and educational projects.



**Sheila Gaiman, M.R.Ph.S.:** A member of the Royal Pharmaceutical Society of Great Britain, Ms. Gaiman has directed Human Detoxification Services International's programs to train Russian medical professionals interested in administering detoxification. For nearly three decades, she has participated in or directed numerous international educational and

humanitarian projects, including teacher training programs in Great Britain and Uganda.



**Yakov Galperin, M.D., D. Psychol.:** Dr. Galperin is Director General of the International ENIEology Academies of Sciences in Moscow. He has devoted 40 years to addressing the problem of drug addiction in Russia, beginning with the establishment of an alcoholism treatment program in 1956. He is also regarded as one of Russia's pre-eminent experts in the field of traditional medicine.



**Vladimir Ivanov, M.D.:** Dr. Ivanov has specialized in drug rehabilitation and drug prevention for over twenty years. His work, conducted within the Medical Institute and the Ministry of Police of Russia, has encompassed both treatment and criminal investigation. In addition to his work in this field, he was one of the first physicians sent to handle the effects of the Chernobyl disaster.



**Kathleen Kerr, M.D.:** Dr. Kerr has been in practice for 23 years. She is the medical director of a detoxification unit, and the medical director for Narconon Toronto. She is involved in environmental health programs at McMaster University and serves on the Committee of Environmental Health for the Ontario College of Family Physicians.



**William Marcus, Ph.D., D.A.B.T.:** A board-certified toxicologist and a widely-published author, Dr. Marcus is a Senior Scientist for the U.S. Environmental Protection Agency (EPA). In two decades at EPA, he has helped establish environmental standards for chemicals such as lead, PCBs and pesticides. He has also served as Adjunct Assistant Professor of

Toxicology at the Uniformed Services University of Health Sciences, Bethesda Naval Hospital.



**W. Kent McGregor, A.C.S.W.:** Mr. McGregor is the Executive Director of the Prevention, Intervention, Treatment and Aftercare (PITA) Group, which provides research, evaluation and administrative support to alcohol and drug programs. He is an international surveyor for the Commission on the Accreditation of Rehabilitation Facilities (CARF) and

has been principal investigator for numerous drug abuse prevention and treatment grants from the federal government's Substance Abuse and Mental Health Services Administration. He has served as Director of the Division of Substance Abuse for the state of New Mexico, and he has been a faculty member and a biochemist at medical schools in Texas and Colorado.



**Keith Miller:** Mr. Miller is the Vice President of the Foundation for Advancements in Science and Education, and has been an Associate of the Foundation for more than 13 years. He founded the HealthMed clinic in Sacramento in 1981, and as Executive Director of HealthMed assisted in the implementation of detoxification to address the effects of workplace, home and environmental chemical exposures.



**Marion Moses, M.D.:** Dr. Moses founded and directs the Pesticide Education Center in San Francisco, California. She has served as Medical Director for the United Farm Workers Union, advocating against the indiscriminate use of pesticides. She is the author of the recently-released book, *Designer Poisons*, a home guide to safe use of pesticides.



**G. Megan Shields, M.D.:** A Diplomate of the Board of Family Practice and Board-Eligible in Anatomical and Clinical Pathology, Dr. Shields is a member of the staff at Hollywood Presbyterian Medical Center. She has supervised the detoxification of nearly 10,000 individuals and has been a co-investigator on a number of the studies of the program.

She has provided medical screenings for Narconon clients for more than 20 years.



**Gary Smith:** Director of Narconon's Chilocco New Life Center, Mr. Smith came to Narconon in 1975 as a client, having been a heroin addict for 14 years. After his successful recovery, he went to work for Narconon supervising rehabilitation, conducting drug education programs and educating others on the handling of violent PCP users.



**David Steinman:** A graduate of Columbia University, with a Masters Degree in Journalism from the University of Oregon, Mr. Steinman served the National Academy of Sciences for two years as a public interest representative. A widely-published investigative journalist, he is the author of *Diet for a Poisoned Planet* and co-author of *Seafood Safety, The Safe Shopper's Bible* and *Living Healthy in a Toxic World*.

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**Forest Tennant, M.D., Dr. P.H.:** A national leader in the field of drug rehabilitation, Dr. Tennant is the author of more than 200 scientific papers, books and videos on the subjects of neurochemistry and drug dependence. He is the Executive Director of the Research Center for Chronic Pain and Dependency Disorders and the Executive Director

of the Community Health Projects Medical Group. He has served as a Public Health Fellow for the U.S. Public Health Service, as an Associate Professor at the UCLA School of Public Health and is a member of the Drug Abuse Advisory Committee of the Food and Drug Administration. He is a Narcotics Training Consultant for the California Highway Patrol and the California Department of Justice. Dr. Tennant is Chairman of the Narconon Science Advisory Committee.



**Kathy Trost-Prisk, R.N.:** A Registered Nurse for fifteen years, Ms. Trost-Prisk has specialized in occupational medicine, including providing case management services to the worker's compensation industry. She has worked as a health appraisal nurse for the Sacramento County Health Department and is currently a triage nurse for Access Healthcare.



**R. Michael Wisner:** Mr. Wisner was the President of the Los Angeles HealthMed clinic, where for 12 years he consulted with physicians regarding the diagnosis and treatment of chemical exposure. He has overseen nearly 2,000 patients undergoing detoxification with the Hubbard program. He has been a researcher/co-author on 12 scientific publications on the Hubbard

detoxification protocol, and is co-author, with David Steinman, of the recently published book, *Living Healthy in a Toxic World*.

#### **Additional Panelists**

**Bob Alexander:** Mr. Alexander is a former hard-core addict, whose alcohol and drug problems spanned nearly 50 years. These problems resolved after he completed detoxification and the Narconon program.

**Kelly Piper:** A former crack cocaine abuser, Ms. Piper overcame her long-term addiction through a treatment regimen that incorporated detoxification.

**James Woodworth:** Mr. Woodworth is the Executive Director of HealthMed, in Sacramento, California and the Director of the Association of Human Detoxification Specialists. He has assisted hundreds of people in completing detoxification with the Hubbard procedure.

## Conference Chairman: David E. Root, M.D., M.P.H.



*"The Hubbard detoxification protocol is the only method which numerous peer-reviewed studies have established to be safe and effective in addressing the problem of xenobiotic contamination."*

*—David Root M.D., M.P.H.*

### Excerpt from Welcoming Address

Welcome to the International Conference on Human Detoxification. A theme that will no doubt emerge throughout the next two days is that we live in a chemically-oriented society. This is not a new theme. In fact, it is the theme for dozens of conferences on the state of the environment and the pollution that we all face. But this conference is unique. It is significantly different for the simple reason that we are focusing on something that can be done to help people survive better in their environments. That is the common denominator that brings us together today.

When I graduated from medical school in 1962, the general perspective on our environment was radically different than today. There was no Environmental Protection Agency. There was really no environmental movement. In fact, I recall news images of children frolicking amidst a strange "fog" blown from special crop dusting trucks. That "fog" enveloping them was DDT. And yet few people saw anything wrong. In fact, it would be many years before the use of DDT was actually banned in this country.

In 1977, Mr. Hubbard put forth the idea that LSD residues could store in human tissue and later react upon the person. He later extended this idea to other toxic compounds. Less than one year later he developed and released a detoxification procedure that could safely eliminate toxic chemicals that accumulate in fatty tissues.

Make no mistake: These were very radical ideas. And not without controversy. The idea that chemical residues stored for years in the fat was controversial. The idea that these residues could actually cause subtle adverse effects was downright revolutionary. And to develop and offer a program that purported to get rid

of these residues was, well, a very brave thing to do.

As we approach a new century, there is now a much different global awareness of our environment—and the human consequences which accompany our dependence on chemicals. Our conference today isn't about controversies. It isn't to argue about whether or not chemicals accumulate in the tissue. (The U.S. government has identified over 400 foreign chemicals in human tissue.) The purpose of this conference isn't to criticize chemical companies. We're here to do something about the problem. This conference is about results. That's what counts.

Many hours have gone into developing our conference program. Whether you have been involved in detoxification issues for many years, or are entirely unfamiliar with the subject, I can assure you that you will learn some very exciting things in the next two days.

I am very pleased that we have so many international participants. And the interest in this conference continues to grow. Unfortunately, there are many colleagues from around the world who were unable to attend. We are making a special effort to produce a Proceedings of this conference so that what transpires over the next few days can be shared with others.

Welcome to the conference. Over the next two days, I look forward to meeting each of you personally.

## Keynote: William Marcus, Ph.D., D.A.B.T.

Good morning ladies and gentlemen. As a preamble to the keynote speakers who will specifically address L. Ron Hubbard's purification program to flush harmful residual toxins from the human body, I would like to give you an overview of the history of chemical intoxication.

Chemical intoxication is not a problem that began with the advent of industrialization but has existed throughout human civilization. The use of chemical substances, as remedies for disease and as poisons, has occurred throughout recorded history.

The use of chemicals to treat diseases began in our earliest civilizations. Records on Egyptian papyrus describe potions used to treat various illnesses, most of which were derived from vegetable substances. Hindu medicine, as well, used many vegetable derivatives, as did ancient Greek medicine. Many of the chemicals found in these vegetable derivatives are still in use in modern medicine.

The use of poisons as instruments of statecraft and political gain has a long and distinguished history. Socrates may be the first recorded person to be killed by the state through the use of poison. In Roman times, Caesar Augustus was poisoned by his wife Livia, and the emperor Claudius was poisoned in a similar manner by his wife Agrippina.

Aside from intentional poisoning, the Romans came into contact with poison daily in the form of lead. In Rome, the use of lead was a symbol of affluence. Patricians built their hook-ups to Rome's famous water system of lead and even used lead in the production of household utensils. One might go so far as to suggest that the fall of the Roman Empire can be measured by the levels of lead in the bones of their leaders. These extremely high levels of lead affected their ability to think, their ability to reproduce and their stamina.

Just another word about Rome. There was a very famous group of Roman ladies, members of the nobility, who were called the Ring of Poisoners. Their specialty was disposing of their husbands and inheriting

their wealth. It became so obvious that this was outlawed. Up until that time there was no law about poisoners.

In the Middle Ages and the Renaissance, physicians continued to use chemicals as medical remedies and also began to observe and to record the symptoms of chemical intoxication.

Paracelsus is a towering example of a courageous physician. He was a practitioner of the dark arts of the Middle Ages, such as attempting to produce lead from gold or gold from gold. But in addition, he cured certain things that no one else could cure. Being shy and retiring, Paracelsus would go from town to town, challenging the local physicians. He would announce that he would take the most sick amongst the townspeople and cure them.

Paracelsus introduced the concept of getting rid of the poisons of infection by lancing suppurating wounds, boils, and infections rather than letting them become worse, and using sunlight and irrigation as tools to fight infection. He made this interesting observation: "In general, remedies that have the power of setting the spirits and blood mass in motion and of provoking sweat lead to cures." This is the approach of Mr. Hubbard's purification program.

Paracelsus said that all substances are poisons. There are none which are not a poison. The right dose differentiates a poison and a remedy. In addition to his introduction of bismuth and arsenic, he used opium to alleviate pain.

Now about the same time, the church awarded ownership of cinnabar mines—mercury, very important material to alchemists of the time—to local rulers in Spain. The church ran them. What they did was look at the people who were the miners and they determined their condition by having them walk a straight line. If they couldn't walk a straight line, they were told that they should stop working until they could walk a straight line.

This is recorded by a very influential scientist named Bernardino Ramazzini, who wrote a book called *On the Diseases*



*As a senior scientist for the U.S. Environmental Protection Agency, William Marcus, Ph.D. (right) has helped develop environmental standards for chemicals such as lead, PCBs and pesticides. Attending the conference in his role as an expert consultant on chemical toxicology, he discussed the problem of environmental chemical exposures in the former Soviet Union with Russian physician Vladimir Ivanov, M.D.*

*“Today, the requirements for a chemical to be a problem are very interesting. Either you have to produce incredible amounts of it, or it has to have a very high fat solubility and the ability to bioconcentrate.”*

*of Workers.* He talks about many different types of industries. Ramazzini made an accurate recording of the signs and symptoms of mercury poisoning, the same description one finds in a modern toxicology text.

Interestingly enough, he also recorded psychic irritability, restlessness, and psychosis—symptoms that modern physicians not acquainted with the properties of industrial poisoning and heavy metals still mistakenly assign to psychological diseases.

In fact, the expression “mad as a hatter” came into existence around this time as a result of mercury poisoning. Hatters closely guarded the secret of “felting,” the process of producing the material known as felt. To produce the nitrates required in felting, hatters ate mercury of nitrate and urinated on fine fibers of animal hair. The nitrates came out in their urine, but the mercury drove them crazy.

At about this time in Italy there was a group of very rich women who employed poisons in their households. Amongst them, we are all familiar with the Medici, the Borgias. It became obvious, when their husbands began to die—more than one of the same lady’s husbands began to die—that they were being poisoned. A bit of history repeating itself. So this ring of women poisoners was rounded up and tried and that was the end of poisoning as an art of inheriting money.

A related scientific observation from this period was the description of the symptoms of ergotism in humans. Again, psychological effects were noted as symptoms of chemical intoxication.

Ergot, a fungus that infects grains, has been used for centuries for its medicinal properties. It is employed to control hemorrhage and to promote contraction of the uterus in childbirth. However, when ergot contaminates a food supply, it has serious consequences on the affected population. People go crazy. They jump out of windows, they do all sorts of unusual things.

The last large epidemic of ergotism was in New York in 1825, not so long ago. There was an epidemic which occurred in Russia, actually, in 1926 to 1927 and a mild one in Manchester, England in 1828. The reports included people leaping from windows and psychosis.

In high levels, ergot causes the smaller vessels to contract. People would present with persistent violent headaches or report ants crawling all over their skin when, of course, there were none to be seen. They would experience nausea, vomiting and itching. As the disease progresses, the skin becomes anesthetic or hyper-sensitive. They would have outrageous hunger, stomach problems or a loss of appetite.

Disturbance of the central nervous system would result in disturbances of the special senses. They would hear imaginary things. They would see things, and they would smell things that weren’t there. They would twitch. The tremors were most marked in their extremities, and in their tongue. The twitches would pass into spasms, and the spasms into permanent contractions beginning with the flexor muscles. Fingers would turn inward.

The physicians in the audience know that when somebody presents with these kinds of symptoms, it’s a very daunting problem to determine what is causing them. So many different organ systems are involved, instead of the usual one. And there is no obvious reason for otherwise normal people to suddenly go off the deep end. If it weren’t for the fact that the symptoms were widespread, one would never realize that there was a common etiology.

The reason I bring this up is that today, many of the people who have been poisoned with modern industrial chemicals present with many of the same symptoms. They are often dismissed as being “crack pots,” or “nuts,” rather than being correctly diagnosed with chemical intoxication.

In the 1840s rubber manufacture began. The solvent used in the manufacture of rubber using natural rubber is benzene. In the 1840s there were reports of problems caused by benzene. These persisted in the 1900s in Baltimore, where there were reports of cancers of the lymphatic system. In 1921, the United States Public Health Service published a warning of changes in the circulating blood system that portended serious consequences.

Tetraethyl lead is another example of a problematic industrial compound. The reason it was introduced was that it made it possible to use one third less of the most expensive petroleum materials to produce

a gallon of gasoline with sufficient octane to be used in automobiles. Tetraethyl lead turned out to be so toxic that it brought about the first instance of a closed manufacturing process, to spare workers the consequences of exposure to organic lead.

In 1942, during World War II, the United States lost access to natural rubber and began manufacturing artificial rubber, using butadiene and benzene, together so potent that a closed system of manufacture was again required.

At the same time, the United States developed war gases. And they assigned this job to the United States Chemical Corps who became known affectionately as the "Comical Corps." They produced organophosphates, similar to and not a whole lot different than the nerve gasses the Germans produced. Those chemical warheads, with these particularly noxious gases, have been stored in many places. Most of them now reside on Johnson Island in the Pacific—rotting, leaking, rusting. They were supposed to have been destroyed and disposed of in the early 1950s, but hundreds and thousands are still sitting.

During World War II, Hercules Powder was producing propellants for the United States military. The workers at Hercules Powder would come home on the weekend and feel terrible. When they went back to work they felt great. Nitrates are the major component of a propellant, and it turned out that exposure to nitrates was causing their coronary arteries to increase in size, and thicken. With the nitrates in their systems the arteries were relaxed. But when they came home, they didn't have the nitrates. The internal bore of the artery would get smaller and they would suffer angina.

This incident was one of the beginning sentinels that showed that the manufacture of industrial chemicals can cause a specific disease endemic only to that industry.

Subsequent to that, vinyl chloride appeared, used in the manufacture of plastics. Aniline dyes became recognized as causing problems resulting in cancer of the bladder in dye workers. In the late 1940s, bladder cancer was discovered not only among employees of DuPont, but also among the workers' wives and children, as the dye was loosed in their households.

Chlordane was developed for use against termites. DDT had been used during the war by our troops in Europe in incredible amounts. Anyone traveling in Europe after World War II may have noticed that there were few, if any, flies or mosquitoes. Meat hung out in the open in many markets, and there were few, if any bugs, to be found.

In the 1970s, two researchers at Mt. Sinai Hospital, Irving Selicoff and Ruth Lilis, published several papers on toxicology. Dr. Selicoff researched asbestos, demonstrating that it was the cause of the disease mesothelioma. Dr. Lilis published a series of papers demonstrating that solvents, DDT and other materials stored in fat.

These papers were some of the first to examine specific public health consequences of the unprecedented accumulation of toxic by-products of industrialization in human tissues.

Irv Geller developed the "executive monkey" and he demonstrated that solvents and PCBs caused problems in the decision-making process in animals. In the early 1970s the PCB story came out and the Toxic Substances Control Act was passed as a result of it. It was demonstrated that dioxin, a carcinogen, stored in the fat.

Today, the requirements for a chemical to be a problem are very interesting. Either you have to produce incredible amounts of it, or it has to have a very high fat solubility and the ability to bioconcentrate.

In 1977, L. Ron Hubbard recognized that there was a problem. He developed something called the "sweat program." But that took months and months and months to complete. In 1978, he modified the program and came out with what is known as the "purification program," sometimes referred to as the Hubbard detoxification method.

Now, the speakers that follow have hands-on experience utilizing this method. They have a great deal of data to present and are far more experienced in its administration than I. The application of this procedure in addressing the effects of environmental and occupational exposures, as well as drug abuse, is the subject of this conference.

I thank you.

*"Bernardino Ramazzini (1633-1714) made an accurate recording of the signs and symptoms of mercury poisoning, the same description one finds in a modern toxicology text. Interestingly enough, he also recorded psychic irritability, restlessness, and psychosis—symptoms that modern physicians not acquainted with the properties of industrial poisoning and heavy metals still mistakenly assign to psychological diseases."*

## Keynote: John Duff



*John Duff, President of Narconon International (left) and Donald A. Kincey, Vice President of the Watts Health Foundation. "To solve drug problems, the United States has chosen primarily law enforcement, with little emphasis on treatment or prevention," Mr. Duff said. "In simple terms, the effort has been to try to arrest our way out of the drug problem. Many would agree that this approach has failed."*

During the two days of this conference, you have had the opportunity to listen to and speak with research scientists and experts from around the world on the subject of human contamination and effective detoxification. The organization I represent, Narconon, has been working in the field of substance abuse prevention and rehabilitation for 30 years now, and has been an international network of centers for the past 25 years.

L. Ron Hubbard's detoxification program has been a central feature of Narconon's drug rehabilitation efforts for nearly two decades. In fact, Mr. Hubbard's desire to address the long-term effects of drug abuse, particularly the "flashback" phenomena associated with LSD, was a large part of the impetus for developing the program.

At this time, we face a serious substance abuse problem in this country. Drug abuse among youth in the United States has been on the rise for the past four years for all categories of drugs, including tobacco and alcohol. Two very dangerous drugs in particular are making a comeback. They are LSD and methamphetamines.

While overall cocaine consumption has leveled off, the percentage of cocaine users who are "heavy users" versus those who are "light users" has greatly increased. In 1980 the majority of the cocaine users were "light users." This has shifted dramatically. What we now have is about two-thirds of the cocaine users heavily addicted to the drug. Some have estimated that the United States probably consumes 80 percent of the world's cocaine. Nothing to be proud of.

To solve this drug problem, the United States has chosen primarily law enforcement, with little emphasis on treatment or prevention. In simple terms, the effort has been to try to arrest our way out of

the problem. Many would agree that this approach has failed.

In 1992, the distribution of expenses to combat cocaine abuse in the United States was analyzed according to categories of spending. Seventy-three percent of the total expenditures went to domestic law enforcement, 13 percent to interdiction, seven percent to source country control, and seven percent to treatment.

One peculiar outcome of ten years of this kind of spending is the fact that, despite more and more money being spent on law enforcement efforts to stop the cocaine traffic, the price of cocaine has dropped drastically.

In 1994, the Rand Corporation conducted an interesting study that looked at what it would cost to lower cocaine consumption by one percent through each of four approaches: source country control; interdiction; domestic law enforcement and treatment.

The cost to bring about a one percent reduction of cocaine consumption through source country control was the greatest, placed at almost \$800 million. Interdiction was next, at \$350 million. The cost for domestic law enforcement was estimated at \$250 million. By comparison, the Rand researchers put the cost for reducing cocaine consumption by one percent via treatment at only \$34 million. Both this study and a 1994 study by the State of California have shown that each dollar spent to rehabilitate those addicted to alcohol and other drugs saves taxpayers as much as seven dollars.

During my 25 years of involvement with Narconon, I have had the opportunity to visit many other treatment programs around the world. I have met many dedicated people working to help the addict and my heart goes out to them all.

I want to describe briefly how the detoxification program you have been learning about has helped Narconon in its work with "hardcore" or seriously addicted individuals.

Narconon is an international network of 37 substance abuse prevention and

treatment centers located in countries around the world. These countries include the United States, Mexico, Canada, Denmark, Germany, France, Italy, Holland, Spain, Sweden, Switzerland, Russia and the United Kingdom.

The Narconon program started 30 years ago when an inmate inside of Arizona State Prison read a book by L. Ron Hubbard and contacted him asking for help with his 19-year addiction to heroin. Today that inmate, William Benitez, works as a hearing officer for the Arizona Department of Corrections, the very prison system in which he was incarcerated for so many years.

When William Benitez was setting up the first Narconon program inside of Arizona State Prison, he was so committed to this work that he turned down an early release so that he could complete what he had begun. He later was released and helped set up the first Narconon residential facility in Los Angeles, California.

What makes Narconon different than other programs?

It is our method of substance abuse treatment, as well as our approach in substance abuse prevention. Narconon is not a "12 Step Program," or a "therapeutic community" nor are we a "Minnesota" or "Hazelton" model. There are some similarities in our philosophies, such as the fact that many of our staff are former addicts and our clients are paired up to help each other through the program. We use no replacement drugs.

Narconon addresses the problem of drug abuse on three fronts. They are: 1) effective substance abuse treatment for those addicted, with an emphasis on the vitamin-assisted withdrawal and the detoxification program that you have learned about during the last two days; 2) effective substance abuse prevention for the coming generations, and 3) making all or part of our effective model of substance abuse treatment available to other interested individuals and organizations.

We are very supportive of other programs, but we consider the notion that addiction is something you are born with and must live with for the rest of your life to be untrue. It is our belief that it is possible to end addiction once and for all.

Addiction to alcohol and other drugs

can come to a successful end, without a lifelong need to follow withdrawal with replacement drugs or therapy addressing the problem of addiction. It can be done and we have done it. In fact, over the last thirty years we have successfully accomplished this tens of thousands of times with clients throughout the world.

There is a common denominator as to why the problem of addiction exists. It might be described as the desire to "feel better than one is feeling." No matter what form of drug use—from aspirin for headaches, to the social use of alcohol, to the use of heroin—each is an effort to try and "feel better." Unfortunately, drugs rarely solve anything permanently. Any benefit gained is almost always lost.

In the medical context, some drugs are used for physical ailments and some for emotions. It is common for "medical" drugs to be distinguished from "recreational" drugs, but most recreational drugs also have medical uses, with the exception of alcohol. Fewer addiction problems arise with drugs used for physical ailments, such as antibiotics, vaccinations or anesthetics.

Few of us would object to the use of antibiotics or anesthetics in medical settings. Yet most of you would probably agree that the use of drugs to handle emotional problems, whether prescribed by a physician or self-prescribed, is fraught with dangers. The probability of addiction and other physical and mental troubles is high.

L. Ron Hubbard was the first to postulate that the accumulation of drug residues in body tissues was a hidden factor in addiction, responsible for continued drug cravings and the persistence of the "drug personality." Through thousands of case histories and research studies, his thesis has been verified. In his keynote on the subject, Dr. Tennant provided a detailed account of the biochemical effects of drug metabolites.

A short list of the traits associated with the "biochemical" or "drug personality" includes flashbacks, burnout, paleness, tiredness and memory problems. Attempts have been made to address these with counseling, group therapy or replacement drugs such as Antabuse, Valium, methadone, etc., with varying degrees of success.

*"Two very dangerous drugs in particular are making a comeback. They are LSD and methamphetamines."*

*Throughout the world, the field of drug rehabilitation is in crisis, plagued by failed attempts at treatment. The conference provided an opportunity for members of Narconon's Science Advisory Board to discuss means to incorporate detoxification across the range of existing programs. Back row, from left: Ray Stowers, D.O.; W. Kent McGregor, A.C.S.W.; Vladimir Ivanov, M.D., David Root, M.D., M.P.H; Paolo Bruschelli, M.D. Front row: William Marcus, Ph.D.; Shelley Beckmann, Ph.D.; Forest Tennant, M.D., Dr. P.H; Alfonso Paredes, M.D.; Megan Shields, M.D.*



Dr. Tennant's research constitutes the first published accounts of drug residues being eliminated during the course of detoxification. It confirms Mr. Hubbard's original thesis, the subjective experience of tens of thousands of Narconon clients and the observations of Narconon rehabilitation specialists over two decades. As these residues are excreted, drug cravings are alleviated and the emotional and behavioral problems associated with addiction diminish.

As I mentioned, it is one of our organizational purposes to share our experiences with other drug rehabilitation specialists, and to help other treatment professionals determine how detoxification using the Hubbard regimen could be integrated in their programs. Toward this end, our research director, Dr. Shelley Beckmann, has presented papers in recent months to both the American Public Health Association and the College on Problems of Drug Dependency of the National Institute on Drug Abuse. I invite you to contact me personally, and to refer your colleagues for further information.

Thank you for giving me the opportunity to speak with you today.

# Human Detoxification—An Overview

## Presenters

Megan Shields, M.D.  
Shelley Beckmann, Ph.D.  
Clark Carr

## Panel discussion participants

William Marcus, Ph.D., D.A.B.T.  
David Root, M.D., M.P.H.

## Moderator

R. Michael Wisner

In the last decade, organizations ranging from the World Health Organization to the Society for Occupational and Environmental Health have published papers concerning the detoxification method developed by researcher and writer L. Ron Hubbard. The first panel of the conference introduced the basic elements of the detoxification protocol, and provided an overview of societal changes that have brought about a need for human detoxification. Panelists from the fields of medicine, toxicology, biology and drug rehabilitation discussed the Hubbard protocol and its applications in treating chemical exposures and drug abuse.

## Background

Dr. Shields began her remarks with a discussion of the extent of chemical proliferation, observing that over four million man-made chemical compounds have been identified since 1965. More than 70,000 compounds are in current production, with 6,000 new compounds identified each week. In addition, at least 3,000 man-made chemicals are added to food. Added to this are illicit drugs, over-the-counter pharmaceuticals and prescription medicine.

Many of these “xenobiotics”—chemical substances foreign to living organisms—accumulate in the human body. At least 400 foreign compounds have been identified in human tissues. The National Human Adipose Tissue Survey (NHATS), a program of the U.S. Environmental Protection Agency analyzes adipose (fat) tissues in cadavers from around the country. According to

NHATS, 100 percent of Americans have xylene, styrene and other known carcinogens in their fat.

If xenobiotics were merely stored, inert, there might not be a problem. However, Dr. Shields related that there is ample evidence that they can be “mobilized” and released from fat stores. Even at low levels they can cause a variety of mental and physical effects. Mobilization may occur as a result of fasting, exercise, stress or heat. Moreover, toxicological evaluations of individual toxic chemicals do not account for the fact that there may be hundreds or even thousands of compounds and metabolites within the adipose tissue of any given individual. These may interact, with wide-ranging effects.

In cases of chronic low-level chemical exposures, disease may progress slowly, with symptoms that could be attributed to a variety of causes. Dr. Shields observed that almost every patient she has treated for low-level toxicity has at one time or another been told by a physician that his or her symptoms could not possibly be caused by chemical or drug toxicity, because there was no evidence of an acute dose of the substance in question. She emphasized that a “high degree of suspicion” and a careful patient history are necessary to establish links between observed symptoms and specific chemicals.

## Detoxification

In 1979, L. Ron Hubbard finalized a precise method for ridding the body of fat-stored drug and chemical residues. As related in his writings on the subject, his research was prompted by a desire to help former LSD users—who often continued to feel the effects of the drug



*Several authors of popular books on chemical contamination, environmental illness and drug abuse were present at the conference. These included (from left) Joan Corbet-Dyne, contributing author to The Green Shalom Handbook; John Duff, co-author of The Truth About Drugs and the upcoming Ending Addiction; Doris Rapp, M.D., author of several books on environmental illness, including Allergies and the Hyperactive Child; Marion Moses, M.D., director of the Pesticide Education Center and author of Designer Poisons; and R. Michael Wisner, co-author, with conference panelist David Steinman, of the recently published Living Healthy in a Toxic World.*



*"The fact is, there is no such thing as a 'reference range' or a 'normal range' for a toxic chemical. None of these things should be in the body."*

*—Megan Shields, M.D.*

*"Why were so many addicts unable to maintain sobriety, despite sincere efforts? The accepted notion was that when the blood was clean of drugs, the body was. But ask an addict if he or she felt clean. Most suffered a cumulative numbness, a life-long hangover that had come to appear normal."*

*—Clark Carr,*

*Rehabilitation Specialist*

years after they had last taken it. During development of the program, participants reported the apparent exudation of medical and pharmaceutical drugs, as well as industrial, commercial and agricultural chemicals.

Dr. Shields noted that today, more than 100,000 people worldwide have successfully completed the Hubbard detoxification program, also known as the "Purification Program." The methodology has been clinically tested, with the finding that levels of residual chemicals are consistently and significantly reduced. This is accompanied by relief from symptoms associated with chemical exposure.

The program is designed to increase mobilization of toxic substances, prevent their re-absorption and recirculation, and facilitate their elimination. Dr. Shields stressed that from a medical perspective, the goal of detoxification is clinical improvement—improved function, quality of life and related factors.

#### Elements of the Protocol

Note: The detoxification protocol is fully described in L. Ron Hubbard's book, *Clear Body Clear Mind*, (Bridge Publications, 1990). The following is a brief summary of material presented and discussed by the panel.

**Daily doses of immediate-release niacin:** Niacin stimulates lipid mobilization by triggering the release of free fatty acids into the bloodstream. It has been demonstrated that, while free fatty acid levels drop initially after taking immediate-release niacin, they rise markedly within two hours and then gradually return to normal.

**Moderate aerobic exercise:** This increases circulation, which ensures quick distribution of the niacin throughout the body and carries mobilized toxins to the excretory routes. Running is preferred, but this can be changed if medically indicated.

**Intermittent sauna to force sweating:** As shown in several studies on this procedure, sweat is a primary elimination route for toxins. Sauna temperatures range from 140 to 180 degrees, lower than the typical health-club sauna. The sauna must be well-ventilated. Subjects take frequent showers, both to

cool down and to remove substances from the skin and prevent their re-absorption. Liquids are administered and participants are monitored for signs of dehydration and heat exhaustion.

**Ingestion of cold-pressed oils:** These are provided to prevent mobilized toxins from being re-absorbed by the intestines to meet body needs for lipids. Polyunsaturated oils have been found to enhance excretion of extremely persistent chemicals, without depositing fat in the liver.

**Vitamin and mineral supplementation:** These replace vitamins, minerals and electrolytes lost due to increased sweating and correct deficiencies which are common among chemically-exposed individuals and drug abusers.

#### Excretion of Toxins

Researchers have found that chemicals mobilized and released into the bloodstream during detoxification may be excreted through a variety of routes, including sebum, lung vapor, sweat, urine and via the gut. Some panelists addressed whether the sudden release of stored chemicals into the bloodstream could have a toxic effect.

Shelley Beckmann, Ph.D., discussed research which has compared the blood of persons doing the program to that of control groups. The comparison found that individuals undergoing detoxification do not have significantly higher quantities of chemicals in their blood than those normally found in the body. This finding has led researchers to conclude that the increased excretion of toxins keeps pace with mobilization.

#### Drug Residues

Clark Carr of Narconon, a drug rehabilitation program utilizing this detoxification modality, discussed the relationship between drug residues, addiction and detoxification. He began by recounting the history of the Narconon program, founded by William Benitez, a prisoner in Arizona State Prison who read Mr. Hubbard's book *The Fundamentals of Thought*. From his reading, he concluded that he could improve his condition and overcome his addiction by raising his ability. He wrote to Mr. Hubbard, asking him to help him and other addicts in prison to help

themselves. Mr. Hubbard responded, recommending specific procedures that emphasized communication, self discipline, personal ethics and integrity.

The Narconon program was effective, said Mr. Carr. But even though graduates were able to remain off drugs, many were troubled by persistent cravings to use drugs, flashbacks and fear of permanent damage or personality disorder. Some relapsed.

Narconon had existed for 15 years when Mr. Hubbard completed his research on detoxification. At that time, Narconon added detoxification to the steps of its program. According to Mr. Carr, the results were significant. In addition to overcoming their cravings for drugs, clients routinely experienced dramatic improvements in composure and responsibility, as well as IQ.

#### Discussion

During the discussion period that followed, panelists and audience members addressed a variety of questions regarding practical details of administering the program, the most suitable type of sauna, etc.

Dr. Marcus discussed a finding of particular interest regarding the detoxification regimen: it appears that body levels of stored chemicals continue to go down after the program has been completed. This has led some researchers to conclude that the program rehabilitates the body's ability to detoxify itself.



*Shelley Beckmann, Ph.D., discussed research which addressed concerns that toxins mobilized during detoxification could reach unsafe levels. Blood studies have indicated that an increased rate of excretion keeps pace with the increased mobilization of chemicals from body fat.*

## Chemically Exposed Workers and Detoxification



*At the conference, worker's compensation specialist Kathy Trost-Prisk, R.N., presented the case of a worker in his twenties who developed Parkinson's-like symptoms after accidentally ingesting chemicals. She referred the patient to the Sacramento Occupational Medical Group for detoxification, and the symptoms resolved. The clinic's Medical Director, David Root, M.D., is pictured on the right.*

### Presenters

David Root, M.D., M.P.H.  
Kathy Trost-Prisk, R.N.

### Panel Discussion Participants

Robert B. Amidon, M.S., J.D.  
Keith Miller  
Marion Moses, M.D.

### Moderator

R. Michael Wisner

Occupational exposures are costly, involving production losses as well as treatment and compensation. Detoxification offers employers a means to prevent the build up of toxins or suspected toxins in the bodies of their workers. A number of independent studies have found the Hubbard detoxification program effective in addressing occupational exposures. Court rulings, including a review by the Supreme Court of the State of California, have established it as a compensable form of treatment under Worker's Compensation law.

A panel of medical and legal experts with extensive occupational medicine and worker's compensation experience examined the issues surrounding workplace exposures. Case histories illustrated the use of detoxification to address a wide range of occupational exposures. In most cases, workers disabled by their exposures recovered sufficiently to return to work.

### Case Histories

In addition to thousands of individual case histories, a number of studies have examined the use of the Hubbard protocol in the treatment of workers exposed in occupational settings. R. Michael Wisner opened the panel with an overview of some of this work.

### Painters

One hundred workers from a 12,000-member Southern California painter's union were randomly selected to undergo toxicological and medical screening. It was determined in advance that those with the highest chemical body burdens

would undergo detoxification.

It was discovered that 92 of the 100 workers were affected in some way by toxic exposure. Findings included high levels of heavy metals in scalp hair, elevated liver enzyme levels, central nervous system dysfunction, pulmonary dysfunction, and higher than normal levels of mercury, lead and solvents in their tissue. In addition, workers complained of a variety of symptoms, including impaired vision, memory loss, head-aches, joint pain, impotence and weakness. Thirteen were not working due to disability.

Twenty-two workers with pronounced symptoms underwent detoxification. In every case lead, mercury and solvent levels were reduced and symptoms dissipated or were greatly reduced. Twelve of thirteen workers previously on disability were able to return to work.

### Police Exposure at Chemical Fire

Mr. Wisner next related an incident in which police and firefighters in a Southern California town responded to an alarm from a chemical fire at an illegal toxic storage facility. A combination of 270 hazardous materials, improperly stored, were at the facility when it caught fire.

The firefighters, properly equipped with respirators and protective clothing, suffered little exposure and had no symptoms. However, the police officers had no safety equipment and were exposed to smoke and airborne chemicals.

Twenty-two police officers were referred for treatment by their worker's compensation provider. Of these, 13 had body burden levels high enough to warrant detoxification. The screenings revealed a wide range of chemical contamination in the tissues: halogenated hydrocarbons, solvents, pesticides, etc. Interestingly, the compounds found in the officers' tissues seemed to vary according to their location at the scene of the fire.

The 13 officers successfully completed detoxification, averaging 18 days on the program. All 13 were able to return to work.

### Electrical Workers

Workers with a long-term history of exposure to polychlorinated biphenyls (PCBs) were selected for treatment. They were screened for body levels of PCBs and organochlorine pesticides before and after detoxification, as well as a follow-up screening. Body levels of PCBs and pesticides decreased significantly as the result of detoxification, and continued to decrease in the weeks following completion of treatment.

### Firefighters

Firefighters in a southeastern state responded to a fire near a local hospital. The fire, said Mr. Wisner, produced much smoke but little flame, and many of the firefighters removed their masks. They were exposed to smoke for a period of three to four hours.

It was later discovered that the building housed electrical transformers. One had exploded during the fire, exposing the firefighters to PCBs and their combustion by-products, including dioxins and dibenzofurans. Swipe samples taken in the building interior after the fire showed some of the highest levels of dioxins and dibenzofurans ever recorded in America.

Fourteen firefighters were placed on the detoxification program. Fourteen firefighters who had not been at the scene were used as a control group. All participants were put through a series of 16 neuropsychometric tests (measuring factors such as reaction-time, memory, body balance, dexterity, etc.). While the results for both groups of workers showed deficits, they were more marked in the exposed group.

After treatment, results of neuropsychometric tests in the exposed group improved significantly while results in the control group remained unchanged. Neurometric testing found significant improvements in nerve function among the firefighters who completed the detoxification program. Symptoms in the exposed group were also greatly reduced and 13 of the 14 firefighters were able to return to work. (The 14th was unable to return due to hearing loss caused by the transformer explosion.)

### Michigan Farmers

In concluding, Mr. Wisner recalled a large-scale environmental accident in which

polybrominated biphenyls (PBBs), persistent toxic chemicals used in fire retardants, were mistakenly sold as feed for cattle, swine and chickens. The chemicals eventually contaminated meat, butter, eggs, milk and humans throughout the state of Michigan, as well as 12 adjoining states.

Pre- and post-detoxification biopsies were taken from a group of Michigan farmers. Significant body burden reductions of PBBs, PCBs and chlorinated pesticides were noted post-treatment, accompanied by symptom reduction.

### Additional Case Histories

Following these presentations regarding exposed populations, the panel discussed individual exposure cases. In 15 years as medical director of an occupational medicine facility utilizing detoxification, David Root, M.D., has treated thousands of individuals disabled by chemical exposures. He presented the following case histories.

#### Exposure to Contaminated Washwater

A 23-year-old woman was employed at a California manufacturing facility that had an oil-burning electrical generator. The generator exhaust stacks were cleaned by a water scrubbing system, which filtered and recycled the water. Her job was to clean the system's filters each day, using a hose. She wore no protective clothing and she was doused daily with contaminated washwater.

After six months, she had multiple complaints: sore throat, hoarseness, eye irritation, malaise, extreme lethargy, interrupted sleeping patterns, and chloracne. She developed a lymph adneopathy, was tested and found to have infectious mononucleosis. The mononucleosis was eventually resolved, but she still had the other complaints, especially malaise, tiredness and chloracne.

She referred herself to Dr. Root for detoxification. On the fourth day of treatment a blackish greasy material began to ooze out of the pores of her skin. This continued for several days and eventually ceased. Chemical analysis of the exudate was inconclusive.

She completed the detoxification program with almost complete resolution of her symptoms. The California Worker's Compensation Appeals Board ordered her employer's compensation carrier to pay for treatment.

*Twenty-two painters with pronounced symptoms of chemical contamination underwent detoxification. In every case lead, mercury and solvent levels were reduced and symptoms dissipated or were greatly reduced. Twelve of thirteen workers previously on disability were able to return to work.*

*"In the end, detoxification is very cost effective under the worker's compensation system."*

*—Robert Amidon, Attorney,*

*Toxic Tort Litigator*



*Charles Gunnerson, a former World Bank Senior Project Officer and a co-investigator for a landmark detoxification study in the former Yugoslavia, speaks with Rena Weinberg, the President of ABLE International. ABLE (the Association for Better Living and Education) is a worldwide association of social groups and public interest activities operating in diverse settings—from literacy projects in South African townships to government-funded drug abuse treatment centers in Europe to correspondence courses in U.S. prisons. Their common denominator is that each activity uses the technologies of L. Ron Hubbard to improve conditions.*

#### **Occupational Exposure to Illegal Drugs**

Dr. Root next recalled a case involving a 45-year-old police officer who was referred for treatment by a psychiatrist.

As evidence officer for a rural county sheriff's department, he was responsible for storage of materials from illicit drug labs seized during drug raids. Materials seized from the labs included chemicals used in the manufacture of the methamphetamine "crank"—ether, zinc, toluene, isopropyl alcohol, formaldehyde, benzene, chromic acid and others. His "office" was a particle board enclosure within a large, poorly ventilated shed which had neither heating nor air conditioning. Summer temperatures in the shed could reach 120 degrees.

A large raid resulted in four methamphetamine labs being brought into the storage facility at one time. The officer began to experience dizziness, nausea, dry heaves, watering of the eyes, light headedness, throat irritation, blurred vision and severe headaches, followed by the onset of shaking and tremors. The tremors were particularly bad in the right hand and continued to worsen.

When he was referred for treatment, testing revealed liver damage and peripheral neuropathy due to solvents, possibly mercury. He was given a full battery of neuropsychological tests.

At the end of his 16-day detoxification program he reported that most of his symptoms were gone, with his nausea and tremors almost completely resolved. His test results, including IQ and verbal processing, improved. He no longer felt the need to see a psychiatrist. He has maintained these gains over the past eight years.

#### **Drilling Company Worker**

Panelist Cathy Trost-Prisk, a worker's compensation referral specialist, joined Dr. Root in presenting the case of an individual she had referred for detoxification after a workplace accident.

A 20-year-old laborer working for a drilling company in Concord, California ingested a combination of diesel oil, fuel, and anti-freeze in attempting to siphon a drainage tank. He immediately complained of burning, pain and wooziness. One and one-half hours passed before he was admitted to a hospital, where his stomach was pumped.

Afterward he suffered from uncontrol-

lable, convulsive shaking and stiffening. He lost all of his motor skills and developed Parkinson's-like symptoms: slurred speech, memory loss and facial stiffness. A PET scan revealed his dopamine levels were extremely low.

At the time he was referred for detoxification, he was taking medication, his condition had worsened and his prognosis was poor. Although the compensation carrier had been billed for several thousand dollars, the physicians on the case had not yet agreed on a treatment program.

At the end of detoxification, 31 days later, his mood was happy, without mood swings, his gait was nearly normal, he was off of medication and he only had very fine tremors of his hands. A second PET scan revealed dopamine levels had returned to normal. He returned to work.

One year later, he had once again developed some fine tremors of his hands, muscle spasms of his neck, throat and flank pain and fatigue. Treatment was reinitiated and the pain and tremors reduced substantially. He now functions at an almost pre-exposure level.

In addition to the fact that detoxification resolved this worker's problems in a relatively short period of time, the cost compared favorably that for previous attempts at treatment. These had included medication, bi-weekly physician visits, neuropsychiatric evaluation and physical therapy sessions three times a week.

#### **Discussion**

Following these presentations, panelists led a discussion with the audience regarding the value of screening workers for body burdens of chemicals, and the use of detoxification as a preventive measure.

Robert Amidon, who has served as prosecutor for the U.S. Department of Justice and prosecuted numerous cases related to workplace exposures, expressed the view that screening is in the best interest of employers as well as workers. The cost of detoxification is negligible, he added, as compared to punitive and other damages that could be assessed by a court.

There was a consensus among the panelists that due to the increasing prevalence of illness resulting from chemical exposures, physicians and worker's compensation providers cannot afford to ignore effective treatment methods.

# Drug Free Treatment of Addiction

## Presenters

John Duff  
G. Megan Shields, M.D.  
Gary Smith

## Panel Discussion Participant

Shelley Beckmann, Ph.D.

## Moderator

W. Kent McGregor, A.C.S.W.

Many in the rehabilitation field view addiction as an incurable disease, a life-long battle against drug cravings. Substitute drugs are viewed as a necessity in treating “hard core” addicts. By incorporating detoxification in its treatment program, Narconon has implemented a distinctly different paradigm: drug-free treatment that results in graduates who are free of the desire to do drugs. The Narconon program is delivered at more than 30 centers in Canada, Europe, Russia and the United States.

A panel comprised of Narconon executives, a physician and an accreditation expert shared their observations regarding the significant difference in treatment outcome when stored drug residues are eliminated through detoxification. The panelists spoke from unusually broad experience in addiction treatment, including the rehabilitation of thousands of “hard core” addicts.

## Background

Mr. McGregor opened the panel by recalling his introduction to detoxification as a component of drug rehabilitation. At the time he first became aware of the Hubbard regimen, he had been working for nearly 25 years in the drug rehabilitation field. His professional experience included work with 12-step programs, therapeutic communities and drug prevention. This work included administering drug rehabilitation programs on a state-wide level as well as prevention research.

In the course of this work he found that while many emotional/behavioral programs have tremendous merit, failures

haunt them. Addicts often achieve significant personal gains only to relapse.

He came to Narconon Chilocco as a consultant to prepare the facility for national accreditation. He decided to do the sauna program himself, to address health problems resulting from exposure to organic solvents in his work as a bio-chemist. His experience led him to conclude that detoxification was a “missing element” in drug rehabilitation, compatible with almost any existing approach to the problem.

Mr. McGregor expressed the view that the physiological aspects of addiction—i.e., drug residues—must be addressed. Otherwise it is not possible to alleviate the drug cravings that are generally considered to signal the failure of emotional or behavioral approaches to the problem. In the course of his continuing work in the field of accreditation, he encourages the use of detoxification.

## The Narconon Program

Narconon’s largest and most ambitious project is the Chilocco New Life Center, located in Oklahoma on 167 acres of Native American land. Run in cooperation with leaders of the five local tribes, the New Life Center has implemented programs to address the addiction problems that trouble Native American communities.

Gary Smith, the Executive Director of this facility, had been a heroin addict for 14 years when he came to Narconon for treatment in 1975. He had attempted to overcome his addiction in eight different programs, without success. Through the Narconon regimen, he was able to stop using drugs, and he became a staff member for the organization. He gave an overview of elements of the Narconon program.

First, the client is trained in communication and “confronting” skills (i.e., the ability to face up to life situations, emotions, etc. rather than avoiding or ignoring them). During the detoxification process the client must be able to communicate what is happening to him.

During detoxification it is not unusual for drug abusers to re-experience physical



*The rate of drug rehabilitation failures—by some estimates as much as 85 percent—has led many to conclude that addiction is an incurable disease. Physicians such as David Root, M.D. (left), and psychiatrist Alfonso Paredes, M.D., of the UCLA School of Medicine have observed that detoxification can alleviate the drug cravings that plague many emotional or behavioral approaches to addiction.*



*John Duff, President of Narconon International (left) and Megan Shields, M.D. (center), discussed the rising rates of addiction in Russia with treatment specialist Yevginy Brioun, M.D.*

*"Detoxification can be readily implemented in nearly any drug rehabilitation effort," said Dr. Shields. "The requisite materials, training and facilities are well within the reach of any program."*

*"There's no doubt that drug residues accumulate in the bodies of addicts, there's no doubt that we can get them out, and there's no doubt that it's a good idea to do this."*

*—Megan Shields, M.D.*

sensations or thoughts associated with being "high." Though the onset of these phenomena can occasionally be unexpected or disorienting, they resolve quickly when the client simply confronts them and continues the program.

Next, the client does the complete detoxification program, precisely as outlined in the Hubbard procedure. Free from the physiological effects of drugs, the individual is healthier, more alert, and able to continue with the remainder of the program.

Following this, Mr. Smith said, counseling addresses why and how the person became involved in drugs. Narconon then provides training in the skills necessary to lead a productive life after rehabilitation. The techniques and materials used in these steps are unique to Narconon.

In cooperation with Narconon staff, each client creates a "follow-up" program as a guide to his or her activities after discharge from Narconon. Each program is highly individualized.

#### **The Clinical Perspective**

For the last 20 years, Dr. Megan Shields, has examined and provided medical supervision for clients undergoing drug rehabilitation at Narconon facilities in Los Angeles. She has had personal contact with nearly 2,000 drug abusers hoping to overcome their addiction.

This work began before the implementation of detoxification in the late 1970s. In her clinical experience, detoxification has brought dramatic increases in the results achieved by Narconon graduates.

Dr. Shields expressed the belief that the central nervous system is the body system most sensitive to the presence of toxic chemicals. Consequently, stored drug residues can cause former drug abusers to experience tremendous difficulties, including drug cravings, reduced ability to reason and emotional problems. Thus the benefits of reducing levels of drug residues in the body are substantial, she said.

As a counterpoint to formal studies, she conducted an informal survey of patients from her own practice who had undergone detoxification for reasons other than drug abuse, but did admit to so-called "recreational drug use." When contacted two years after completing detoxification, 85 percent stated that they had not used a recreational drug since the sauna program.

When asked why, they stated that they had "no further desire" for such substances.

In concluding, Dr. Shields emphasized that detoxification can be readily implemented in nearly any drug rehabilitation effort. The requisite materials, training and facilities are well within the reach of any program.

The panel encouraged other rehabilitation programs to give serious consideration to the benefits of incorporating detoxification in their treatment regimens.

#### **The Nature of Addiction**

John Duff, President of Narconon International, has worked for 25 years in the field of drug education. He discussed the causes of drug abuse, and the relationship between biological and environmental factors.

He reiterated a point made in Dr. Tennant's keynote presentation, that if the addict does not first address the biological factors of his addiction, it is unlikely that he will succeed in subsequent counseling or training. He attributed Narconon's success, and its long-term retention rate of 50-70 percent, to the use of detoxification.

#### **Discussion**

In the discussion period, panelists joined the audience to consider practical questions ranging from the length of the time necessary to complete the detoxification program to the variety of factors contributing to addiction.

Mr. McGregor related that his initial impulse was to reject what he found at Chilocco because he considered himself an expert and he had not previously heard of the Hubbard detoxification program. After observing for himself the results obtained by the clients, he was no longer skeptical.

The discussion also touched on drug prevention policy, and the need for a serious effort to identify and share effective rehabilitation techniques, to balance the current emphasis on law enforcement and punitive measures.

## Human Detoxification in Russia

### Presenters

James Barnes, C.H.P.  
Yevgeniy Bryun, M.D.  
David Gaiman  
Yakov Galperin, M.D.

### Panel Discussion Participants

Vladimir Ivanov, M.D.

### Moderator

David Root, M.D., M.P.H.

During the years of Communist rule, those in the West had only sketchy information about the extent of chemical and radiation contamination of the environment in the former Soviet Union. As Russia's new leaders work to rebuild their country, they (and the world) are discovering that millions of citizens have suffered exposures sufficient to harm their health and shorten their lives.

This panel, one of the most anticipated of the conference, brought detoxification specialists with experience in Russia together with Russian physicians. The panel provided a unique first-hand account of the extent of environmental contamination and drug abuse in Russia, and the threat that these problems pose to the future prosperity of the region.

### The Need for Detoxification:

#### The Russian Perspective

Dr. Yakov Galperin shared his experiences as a physician in the former Soviet Union dealing with the problems of drug and alcohol addiction. He has devoted 40 years of his career to work in this area, beginning with the establishment of an alcohol treatment program in 1956. He is also regarded as one of Russia's pre-eminent experts in the field of traditional medicine.

Upon the breakup of the Soviet Union in 1991, he said, the established system for fighting drug and alcohol abuse broke down, creating an epidemic. As an example, he cited the situation in Kazakhstan, where hundreds of square kilometers of marijuana grow wild. Previously, these fields were guarded by Soviet troops. Now

that Kazakhstan has become a separate country, the marijuana is being harvested and smuggled into Russia. Other systems for fighting drug importation and illegal drug use have similarly broken down.

The social and political chaos which are currently affecting the country have made for a difficult situation, he reported. Many in the country are attempting to rediscover the roots of their national identity, searching back as far as the days before the Mongols came to Russia in 1300 AD. In the field of healthcare, Russian tradition includes the use of herbs in treatment, addressing the spiritual aspects of illness, and other alternative methods.

Dr. Galperin observed that the Hubbard protocol reflects practices which are well-accepted among the Russian people, such as the Russian "banya." This is a traditional method in which the person takes a sauna to facilitate the release of toxins. The banya also involves ingestion of fruit and vegetable juices known to be high in vitamins and minerals, another similarity to the Hubbard protocol.

Dr. Galperin stated that detoxification and the Narconon program are growing quickly in Russia, hampered only by lack of funding. He described his long-term vision, the establishment of an international drug treatment center where all types of effective treatment can be employed to resolve the problem of addiction.

#### Environmental Contamination in Russia

The panel discussion next turned toward the problems of environmental contamination that exist in Russia. It considered the example of the Aral Sea, which has reduced in size by one-third as a result of agricultural programs established by Kruschev. The indigenous population can no longer make a living from fishing because there are no longer any living fish in the sea. Dust storms from the dried sea floor rain pesticides and industrial chemicals on those who live near the sea; the incidence of mutated infants is high.

The Chernobyl accident was not the first to release radioactive materials in the environment. The first Russian nuclear



*According to Dr. Yakov Galperin, detoxification reflects practices which are well-accepted among the Russian people, such as the Russian "banya."*

*In 1991, a team of detoxification specialists was invited by the Soviet Academy of*

*Medical Science to participate in a trial to determine*

*whether radionuclides could be removed from the bodies of men affected by the*

*Chernobyl disaster. Fourteen men from the Kaluga region*

*were detoxified, including a doctor. According to three*

*measures, body levels of radionuclides reduced as*

*much as eight-fold.*



*Although it will require several generations for Russia to remedy existing problems of environmental contamination, detoxification offers a low-cost, effective, broadly-deliverable means to address the "inner ecology" of the individual worker or citizen. David and Sheila Gaiman of Human Detoxification Services International consulted with toxicologist William Marcus, Ph.D. (right) on efforts by Russian physicians to reach victims of radioactive accidents and industrial pollution.*

disaster was at Chelabynsk. Few in the West have heard of it, though it was of a magnitude comparable to Chernobyl. The water table in the region is now contaminated by radioactive materials.

It was pointed out that Russia occupies one-seventh of the world's land mass. It is not, as some

might believe, a poverty-stricken nation entering third world status—it is, potentially, the richest country on earth. Its resources include oil, nickel, aluminum, diamonds, land, forests and fresh water. Its wealth is also in its people, its educational system and its standard of art.

Detoxification in Russia began on an institutional basis through Human Detoxification Services International (HDSI) in 1991. HDSI was invited by the Soviet Academy of Medical Science to participate in a trial to determine whether it was possible to remove radionuclides from the bodies of men affected by the Chernobyl disaster. Fourteen men, including a doctor, from the Kaluga region participated. According to three measures, body levels of radionuclides reduced as much as eight-fold.

In 1993, Usolye Sirbiskoye, in Siberia, was the site of another detoxification trial. Under Communist rule, a number of chemical plants were built in the region, releasing toxic materials including dioxin into the local environment. Lead and mercury are in the town's water table, and 17 toxins have been identified in the food supply. Workers have a working life that ends at 45; their lives end around the age of 50.

Four doctors from the town were trained in administering the detoxification program. All were required to do the program as part of the training, on the basis that they could not understand what their clients were going through if they had not done the program themselves. Eighty people from the region were detoxified under the auspices of HDSI; 60 more were treated after HDSI representatives left Usolye Sirbiskoye. All achieved significant reduction of their complaints.

### The "Inner Ecology"

The panel also raised the issue that Russian citizens do not currently have the legal and worker's compensation protections that were discussed in other panels at the conference. For example, although the chemical plant in the region of Siberia where HDSI conducted detoxification is an observable hazard to the community, the workers would be without work and a means to live if it were closed.

It may require several generations to remedy existing problems of environmental contamination, but the panel noted that detoxification offers a low-cost, effective, broadly-deliverable means to address the "inner ecology" of the individual worker or citizen. Numerous detoxification centers are now operating in Russia.

In April 1995, thirty children exposed to radiation as a result of the Chernobyl disaster were detoxified at the Vasilievskaya sanitarium. All experienced significant physical, behavioral and IQ gains. (More details regarding this were presented later in the panel.)

HDSI has three clinical studies planned for the near future. The first of these, in cooperation with the Ministry of Foreign Affairs, is to be done on 10 women judged to be infertile due to immune system suppression resulting from viral infections. The second is to be conducted in Uffa, where an institute exists which is dedicated to the study of dioxin and the consequences of low-level exposure on human health. There, detoxification will be done on an initial group of 30 dioxin victims from the area.

The third study will be in the Briansk region, which adjoins the Chernobyl area. Sponsored by the Institute of Radiological Research and the Ministry of Health, the study will involve the detoxification of an initial group of 20 children. In the next phase, four physicians will be trained to supervise the program and will administer it to another 20 children. Following this, the program will be permanently implemented to accomplish detoxification of all the children in the region who have been affected by the Chernobyl disaster.

### Detoxification and Radiation Exposure

James Barnes, a certified health physicist specializing in radioactivity and radiation safety, related details of the Chernobyl dis-

aster and the results of treating victims with the Hubbard regimen.

On an early spring morning in April 1986, he said, workers at the Chernobyl nuclear power plant were conducting tests. While in the process of bringing reactor power levels down using a highly unusual and risky procedure, they lost control of the reaction. As the out-of-control nuclear reaction continued, steam pressure in the reactor climbed to extremely high levels, causing the protective cladding of the fuel to disintegrate. Free of its covering, the melting fuel reacted with the steam to form oxygen and hydrogen gas, both extremely explosive. A steam explosion, which ruptured the reactor vessel, was followed immediately by a hydrogen/oxygen explosion, which disintegrated the reactor and demolished the containment building, releasing huge quantities of radioactivity into the atmosphere.

The damage from the explosions destroyed the reactor, Mr. Barnes said, resulting in failure of all containment systems. Radioactivity from the explosion began to blow north, where it was detected first in Finland. Eventually, the rest of the world learned of the disaster.

There were 13 deaths due to radiation exposure received on the night of the accident. In all, 38 persons died as a result of Acute Radiation Syndrome. 135,000 residents within a 10-mile radius had to be evacuated. Today, several million people live on soil contaminated as a result of the disaster. Some projections suggest that 20,000-40,000 persons will die prematurely from radiation-induced cancer.

One of the most heavily affected areas in Russia is Briansk, in the direct path of the radiation plume. Briansk experienced radiation levels 100-1,000 times greater than acceptable release limits in the U.S. Many of those contaminated were children. In cooperation with the Russian government, 14 children, ages 10-15, were put through the detoxification program.

To some extent, cesium 137 is naturally and gradually eliminated from the body, Mr. Barnes said. The younger the child, the faster the excretion rate. Cesium levels were measured when the

children arrived for detoxification. After a waiting period of ten days, they began the program. Mr. Barnes discussed in detail the steps taken to measure reductions in systemic contamination. All of the children experienced reductions beyond those predicted by normal excretion rates, with some achieving total elimination.

Mr. Barnes closed by stressing that, when faced with industrial or environmental accidents, safety professionals need treatment that is simple, economic and can be set up and administered quickly. In his experience, the Hubbard detoxification procedure is one of the few methods that meets these criteria.

#### Discussion

During the discussion period, panelists exchanged additional details regarding drug abuse and environmental contamination in Russia with session attendees. A consensus emerged, echoed in subsequent informal meetings, regarding two points: first, that few at the conference had previously realized the magnitude of these problems and second, that perhaps nowhere in the world could detoxification have more far-reaching and immediate benefit than in Russia.



*Panelist James Barnes, Radiation Safety Officer, Rocketdyne*

*Division, Rockwell Aerospace:*

*"When we are confronted with a Chernobyl, when we are confronted with a Bhopal, we need a method that is simple, we need a method that is economic, we need a method that can be set up and run quickly. The detoxification method that Mr. Hubbard developed is one of the few methods I've seen that meets those criteria."*

## Detoxification Case Histories and Future Perspectives



*Diane Dulca (center) is the widow of a Gulf War veteran who died of cancer shortly after returning from the conflict. She has since established a fund to enable Gulf War veterans to be detoxified. Between sessions, she met with James Woodworth, (right) Director of the Association of Human Detoxification Specialists, and Larry Liss, a highly-decorated helicopter pilot from the Vietnam conflict, who underwent detoxification to overcome the effects of exposure to the herbicide Agent Orange.*

### Presenters

G. Megan Shields, M.D.  
David Steinman

### Panel Discussion Participants

Keith Miller  
William Marcus, Ph.D., D.A.B.T.

### Moderator

R. Michael Wisner

The Hubbard detoxification regimen was not conceived as a “medical” procedure. However, as the only technique widely shown to be effective for reducing body accumulations of fat-soluble toxins, physicians have adopted it as a tool for alleviating the symptoms of chemical exposure.

Previous panels and keynote presentations presented case histories and studies in which detoxification was employed to treat workers suffering from job-related exposures. This panel examined several of the thousands of case histories of individuals who have been referred for detoxification to resolve problems resulting from chemicals in their homes or immediate environment.

As a counterpoint to the clinical perspective presented, a journalist described his initially skeptical investigation of a case history, and his subsequent decision to undergo detoxification himself.

Mr. Wisner opened by recalling a case that dramatically illustrated the fact that toxins may persist in body tissues for years before their effects become visible. A woman, working as director of health services for a telephone company, had manifested “multiple chemical sensitivity” for several years.

A thorough history revealed that as a child in Louisiana she had chased trucks spraying pesticides to eradicate mosquitoes, playing in the pesticide “fog.” The spraying took place as often as twice a week, over a period of several years. Biopsies found high levels of pesticides in her tissue. After detoxification, her symptoms resolved and the levels of pesticides

in her tissue were greatly reduced.

In another case described in detail, a landscaper in Texas was helping a friend lay a foundation for his home. At the time, it was common practice to pour pesticides on foundations to prevent termite infestations. As he was dragging a 100-pound barrel of chlordane, it fell over and the chemical poured over his clothes and body.

He was immediately hospitalized and treated, but continued to have tremors and numbness in his extremities. These symptoms went into remission after detoxification and he was able to return to his landscaping job. Biopsies showed significant reduction in adipose levels of chlordane, DDT, and the DDT metabolite DDE.

### Exposures in the Home

Dr. Shields discussed the problem of chemicals in the home, and the use of detoxification to treat children who suffer from the effects of exposure. She remarked that, although cancer has been the primary measure of chemical hazard, the nervous and immune systems are earlier sentinels of harm. Despite this, she said, less than 10 percent of the 70,000 chemicals in domestic or commercial use have been tested for immunotoxic or neurotoxic effects.

The safety of the American home, Dr. Shields stated, is in question. Between five and ten million household poisonings occur each year.

Household chemicals, she said, can include solvents in paints and cleaning products, herbicides, pesticides, germicides, chlorine compounds, dry cleaning chemicals, carpet off-gassing, isocyanates in glues, lead in old paints and plumbing, dioxin in bleached paper products, asbestos, formaldehyde, radon and other chemicals. Many of these compounds have oil-soluble metabolites that are known or suspected to accumulate in human tissue.

Domestic exposure to pesticides has been associated with a five-fold increase in cancer, she said. Parental exposure to

solvents at work is strongly associated with childhood leukemia at home. Full-time homemakers have been found to have significantly higher rates of cancer than women who work outside the home.

#### Exposures to Children

The effects of chemicals, Dr. Shields said, are often more severe on young children than on older people in the same family. The effective concentration of a toxin is higher in the child. Due to their smaller body mass, less-developed immune system, higher rate of metabolism and other factors, children may be affected by chemicals at lower levels than adults.

Nearly two million American children, ages one to five, suffer from lead poisoning, Dr. Shields revealed. Fifteen percent of American children under the age of six have blood levels of lead that exceed standards and can cause permanent neurological effects. Domestic exposure to pesticides is linked to increased rates of childhood cancer.

Children also face exposures at school. Many older school buildings are permeated with lead. Solvents, glues, old paint, waxes, pesticides, polishes and other chemicals are also present.

#### Cohort Study

Dr. Shields then described a cohort study which reviewed the case histories of 18 children from 10 different families, each with some domestic or environmental exposure. Age at the time of treatment ranged from 4 to 21 years old; age at the time of exposure ranged from in utero to 15 years old. Their chief complaints included headaches, allergies, respiratory problems, recurrent infections, multiple chemical sensitivity and fatigue.

As necessary, vitamin dosages, time in the sauna, and other factors were modified to allow for the decreased body size (and age) of the participants. The children rated the severity of 87 symptoms before and after treatment. In addition to significant post-treatment improvements, 89 percent showed continued improvements in symptom profiles in follow up-interviews conducted two months after detoxification.

#### In Utero Exposure

The large audience next heard the case of a six-year-old girl who had been

exposed in utero to fumes from new carpet. Her entire family, including five children, had become ill after the carpeting was installed. They abandoned their home three weeks later. When laboratory mice were exposed to samples of the carpet, all died within several hours—an unprecedented finding. The manufacturer admitted that the latex carpet backing had been improperly cured, and phenylcyclohexene (a by-product of the production of the rubber latex used for the backing) was the suspect agent. The mother of the family eventually testified before Congress, which then enacted new labeling criteria for carpeting.

Prior to detoxification, the child was quite ill, unable to leave her home or perform the rudimentary tasks expected of a six-year-old. She completed the program in 29 days. Detoxification effected long-term improvement in her environmental sensitivities. Her task performance improved and she was able to take classes outside her home for the first time in her life.

#### Pesticide Exposure in the Home

In concluding, Dr. Shields presented the case of a 14-year-old girl who became ill as a result of repeated misapplications of the pesticide dieldrin in her home. Her chief complaints were headaches, nausea and severe acne.

Fat biopsies were performed before and after detoxification, and gas chromatography scans were done for organochlorine pesticides.

Dieldrin levels were below detection, but the DDT metabolite DDE was detected at the level of 2.8 parts per million. After detoxification the level had been reduced to 0.24 parts per million, and her symptoms were alleviated.

Summarizing these cases, Dr. Shields stated that where children have become ill following chemical contamination, detoxification treatment provides a viable approach. The treatment is safe and results in long-term improvements in the health profiles of exposed children, increasing their ability to become productive members of society.

#### A Journalist's View

In researching a book project, journalist David Steinman followed the case of a 39-year-old female athlete who had no

*"Familial chemical contamination will continue to occur in our modern society. When children become ill following exposure, detoxification provides a viable approach. The treatment is safe and provides long-term improvements in the health profiles of exposed children, increasing their ability to become productive members of society."*

*—Megan Shields, M.D.*



Panelist David Steinman:

*"Exposures are very subtle sometimes, and very powerful. It's often difficult to tell where you are being exposed, how you're being exposed and what you can do about it."*

known history of chemical exposure, yet manifested symptoms consistent with such exposure. Although she was in excellent physical condition, her complaints included fatigue, flu-like symptoms, non-productive cough, muscle tiredness and joint pain. She ate an excellent diet and drank only bottled water. However, a blood sample revealed high levels of trichloroethylene (TCE) and TCE metabolites.

Unknown to her, Mr. Steinman said, the water supply in her community was contaminated with significant quantities of TCE, a carcinogen and nervous system toxin. A significant aspect of her profile was that she took three-four showers daily. Inhaling the steam from the showers, he said, was the equivalent of drinking many, many, glasses of water daily, as the toxins are more readily absorbed in vapor form.

Upon completion of the program, the woman's symptoms were resolved and post-treatment levels of TCE metabolites were undetectable.

As a child, Mr. Steinman had been exposed to both DDT and PCBs from fish in the Santa Monica bay, and following the successful conclusion of the athlete's case, he decided to undergo detoxification himself. As a journalist, he was interested in verifying the claims and had independent blood testing done before the program, mid-program, and upon completion.

As expected, the mid-program levels were somewhat elevated, and the end result was a 40% reduction in DDT levels and a 90% reduction in PCB levels. His scores on IQ tests improved as well.

Mr. Steinman called for more attention to be paid to what is called "low-level" exposure, as even these low levels are causing health problems, and the cumulative effects of toxic exposures are still unknown.

#### Discussion

In the discussion period for this session, a number of conference attendees presented additional anecdotal histories.

The first was a Russian woman who had been injected with drugs by a thief in a Moscow subway. She lost her memory

for several days afterward. She immediately went to a detoxification center in Moscow. Her memory recovered, and she experienced additional gains in terms of increased happiness and vigor.

A Vietnam war veteran had been exposed to dioxin from the defoliant Agent Orange. He underwent the program, and experienced significant improvements. However, he then went to work as the head of an asbestos abatement company. He developed great difficulty breathing and sleeping and went onto permanent disability. He undertook detoxification again, and by the fifteenth day in the sauna his symptoms had resolved.

Another attendee had been exposed to chlordane, used in treating termites in her home. Her entire family developed nervous system, immune, reproductive, skin, hormonal and other problems. For two years, they were told the levels of the chemical in their home were too low to cause these problems. Eventually they moved out of the home, and continued to have bowel and bladder problems, lung constriction, coughing and migraine headaches. The entire family undertook detoxification together, and these symptoms resolved.

Following these accounts, the panelists engaged in a dialogue with session participants regarding the nature of the relationship between reduced body burdens of chemicals and observed symptoms. As a related phenomenon, it has been noted that symptoms which did not respond to medical treatment before detoxification have resolved when treatment is resumed after detoxification.

## Case Histories: The Impact of the Detoxification Program

### Presenters

Clark Carr  
Bob Alexander  
Kelly Piper

### Moderator

W. Kent McGregor, A.C.S.W.

During planning for the conference, frequent requests were made for the presentation of first-hand accounts of the use of detoxification to treat drug abuse.

Following presentations which outlined the rationale for integrating detoxification in the drug rehabilitation process, this panel reviewed a number of specific case histories. Two former hard core drug users joined the panel to discuss the impact of detoxification on their addiction problems.

Clark Carr, representing the Narconon program, explained that in drug rehabilitation, the nature of the materials being mobilized into the bloodstream is such that an individual may re-experience the physical and emotional sensations associated with drug use. Addicts not only experience “highs” (as well as “flashbacks”) during detoxification, but also manifest what has been termed a “drug personality.”

Such phenomena, Mr. Carr stated, are often directly associated with increases in niacin. When physical or mental reactions occur, the correct action is to continue the person on the program following the standard protocol, knowing that the symptoms will diminish as the program is continued. He explained that these seeming “reactions” are in fact reactivation, or “restimulation,” of thoughts and physical phenomena experienced while under the influence of drugs.

Mr. Carr described examples of restimulation which he had encountered in a decade of work with addicts, from rashes and the re-appearance of old needle marks to paranoia and delusions. To further illustrate the variety and transitory nature of these manifestations, he presented examples drawn from

representative case histories.

### Case History 1

The client had a drug history which included heroin, methadone in large doses daily and psychiatric drugs.

On the ninth day in the sauna, the client reported that he experienced a “buzz,” as if under the influence of heroin. Reported that he felt “annoyed.” Two days later, he reported stomach problems, puffy eyes, difficulty sleeping—all symptoms of heroin withdrawal. This is noteworthy, as the client had completed withdrawal from the drug prior to beginning detoxification.

On the 12th day on the program, the client was ill. Again, he reported that he “felt high like on heroin.” The next day, these manifestations had abated, and he reported feeling better. Improvement continued on day 14, and the client reported his sleep was improved and he felt like his “normal self.”

Again on day 17, there was an apparent mobilization of additional stored residues. The client reported that he had a “heroin buzz,” accompanied by “murderous thoughts.” This continued on the next day, with the client feeling “anxious and irritated,” also noting that his “sweat smells like a hospital.”

On day 19, the client reported the reappearance of hypodermic marks from past drug injections on his arm, “purplish” in color. Again, he experienced a heroin “buzz,” this time for 15-20 minutes.

The regimen was continued, with the appearance and dimunition of similar manifestations. After 52 days, the client completed detoxification and has since remained drug free.

### Case History 2

Next, Mr. Carr related the case of a client who had abused a large variety of drugs. Prior to rehabilitation, she was smoking marijuana daily and had begun using heroin.



*Narconon's Chilocco, Oklahoma center sits on 167 acres of Native American land. Run in cooperation with leaders of five local tribes, the facility works to address the addiction problems that trouble Native American communities. At the conference Gary Smith, Executive Director of Narconon Chilocco (left), met with Joe Jojolla, past Director of the All Indian Pueblo Council's Two Worlds Alcoholism Project and accreditation specialist W. Kent McGregor.*

*“With crack cocaine, one hit is too many and a thousand are never enough. My friends who had been to various other programs had managed to stay clean while they were there. But the issues that weren’t really addressed for them were why they did drugs in the first place, and the problem of drug cravings.”*

*—Kelly Piper,*

*Former Addict, Narconon*

*graduate*

On her first day on the program, the client developed a facial rash and experienced drug-induced hallucinations. On the third day, she reported feeling as if she was high on the designer drug, “Ecstasy.” Similar drug reactions continued on the fourth day.

On the eighth day, the client reported that she was unable to sweat in the sauna. She reported that she was “very angry,” and felt that “everything was fine when it wasn’t,” emotions which she associated with the drug Prozac. The next day, the client reported feeling paranoid. For example, when she left the sauna for cooldown periods, she had the impression that the other clients in the sauna were talking about her. While in the sauna, she said she “saw strange patterns in the floor.”

This client remained on the program for 56 days, with a continual lessening of drug-related manifestations. She completed the program and remains off drugs.

#### Personal Accounts of Former Addicts

##### Kelly Piper

Ms. Piper stated that she began using drugs at age 14. By age 15, she was smoking marijuana every day. She then began to use cocaine, LSD and other drugs. To some extent, she “got away with it” because she continued to do well in school. After high school, she began college studies at UC Berkeley. Her parents died while she was at school and she was obligated to return to Los Angeles. At this time, she became addicted to crack cocaine.

She did crack daily for four years, and was “unable to get out of bed” without it. She became pregnant twice and had two drug-induced miscarriages, nearly dying from complications of a hemorrhage. Eventually, she was arrested and given a choice of treatment or a jail sentence. She was again pregnant at that time.

She chose the Narconon program because it was “the only one her friends hadn’t tried.” She had observed that they still craved cocaine after rehabilitation and eventually resumed use of the drug.

Prior to detoxification she experienced “overwhelming” cravings for crack. She completed the program after 46 days (in 1993). She completed the other components of the Narconon program while

pregnant, and underwent detoxification after giving birth. She is drug-free today and the mother of a bright, active child.

##### Bob Alexander

Now 53 years old, Mr. Alexander said that he began using alcohol at the age of four. It was given to him by an aunt and uncle who found it amusing to see him drunk. He began drinking on his own at age seven and became a life-long alcoholic. As he grew older, he also abused codeine (which he purchased over-the-counter) and later used marijuana and speed and abused prescription drugs.

Eventually, Mr. Alexander was sent to prison for assault. In prison, he successfully completed the Alcoholics Anonymous program. After release he eventually went back to abusing alcohol. Some years later he suffered a serious injury to his foot. During treatment, he became addicted to synthetic heroin. This continued for seven years, until his physicians would no longer prescribe the drug.

He turned to the streets, and was a heroin addict for 17 years. During this time he went through 11 different rehab programs, each time relapsing after completion. After completing detoxification, he was free of drug cravings. Today, for the first time in more than 40 years, he is drug free.

## Implementation of the Detoxification Program: Training Programs

### Presenters

Sheila Gaiman, M.R.Ph.S.  
Gary Smith

### Panel Discussion Participants

Kathleen Kerr, M.D.  
David Root, M.D., M.P.H.  
Megan Shields, M.D.  
James Woodworth

### Moderator

R. Michael Wisner

It has been found that the detoxification regimen developed by Mr. Hubbard must be administered exactly to achieve uniformly successful results. As interest in detoxification has grown among medical professionals, a pressing need for training in supervising the program has developed.

A panel of physicians and detoxification specialists provided an overview of the basic elements necessary to train doctors, drug rehabilitation specialists or other professionals to deliver detoxification according to the Hubbard protocol.

#### Detoxification in Russia

Ms. Sheila Gaiman opened the panel with an account of an effective training and apprenticeship program which Human Detoxification Services International (HDSI) has established in Russia.

At the time of the conference, 47 Russian medical professionals had completed training on how to administer the program. In cooperation with the Russian government, HDSI has trained physicians from the Ministry of Health at the Kremlin, the Brain Institute at Saint Petersburg, the Research Institute for Medical Radiology at Obninsk, and other government organizations.

The first training program took place in Siberia, at the invitation of a local town mayor and the chief medical officer. The physical prerequisites for training, Ms. Gaiman said, include a sauna, space for aerobic exercise (generally, running), a courseroom and a setting with

sufficiently clean air, water and food supplies that significant environmental chemical exposures do not occur during detoxification. A minimum of four doctors are trained together.

Courses are conducted using training methods developed by Mr. Hubbard, Ms. Gaiman said. As the trainers from HDSI are often working within limited time, these were found to be vital to increase both speed of study and comprehension of materials.

Ms. Gaiman explained that the course of study, and the apprenticeship, are presented in the format of a checksheet—a list of study and practical assignments to be completed in order. Each student works at his own pace, with assistance from a supervisor.

In Russian medicine, she said, it was observed that the patient is sometimes treated as a “number.” When this occurs, the physician and his patient are not in proper communication. Ms. Gaiman stressed that close communication is essential during detoxification, as each day the client must describe, either verbally or in writing, what he has experienced while on the program.

As a result, she said, a course in communication skills is the first step in the training regimen. This ensures that the physicians can communicate freely with their clients and obtain the information necessary to continuously provide correct instructions.

Once this course was complete, the doctors began their own detoxification. HDSI has made this a requirement of training, to ensure the greatest possible insight into the phenomena that patients encounter. This portion of the training began at 8:15 in the morning and continued until the Russian lunchtime of 2:45. After this, students continued their theoretical studies.

A course on study techniques was next, Ms. Gaiman said, to ensure the 100 percent comprehension necessary to successful administration of the detoxification program. Next, the actual protocol was



*Gary Smith, Executive Director, Narconon Chilocco: “The cost of fighting drugs continues to increase—whether insurance benefits, court costs, or locking people up in jail. Almost any treatment program seeking a cost-effective means to improve results could benefit by training staff to administer detoxification.”*



*At present, about 80 percent of addicted Polish inmates revert to drug use and return to prison. Malgorzata Pырzygowska, Deputy Director of the Polish Penitentiary System, and Malgorzata Bielawska, Manager of the System's Chemical Dependency Unit, discussed plans to train personnel to administer detoxification with Bosse Persson, the President of Narconon Europe.*

learned in a course based on Mr. Hubbard's book *Clear Body Clear Mind*.

Training takes approximately three weeks of full-time study. After passing a written examination, the physicians apprenticed by supervising patients through completion of the detoxification program. Misapplications of the protocol were corrected. When the student demonstrated competence by successfully getting patients through the program, he graduated.

#### **Drug Rehabilitation**

In addition to physicians desiring to incorporate detoxification in their practices, a growing number of professionals in the drug rehabilitation field have expressed interest in detoxification. Gary Smith, the executive director of Narconon Chilocco, examined the circumstances that have contributed to this interest.

At present, Mr. Smith said, the national success rate for recovering addicts through rehabilitation is about 15 percent. This is reflected in the fact that, on average, addicts who come to Narconon for treatment have previously failed in at least three treatment programs.

Mr. Smith observed that even though addicts may manage to cease their drug use, they often fail to complete other necessary steps of rehabilitation, such as repairing their relationships with others in their lives, due to the fact that their

attention becomes largely focused on fighting continued cravings.

The Narconon program enjoys a success rate three to four times the national average, which Mr. Smith attributed in large part to the elimination of drug residues through detoxification and the accompanying reduction of drug cravings.

He stressed that the detoxification program is compatible with a variety of approaches to addiction treatment, and that Narconon encourages its implementation in other settings. To further this, Narconon Chilocco offers training in the use of the Hubbard program in the field of drug rehabilitation.

#### **Discussion Period**

To begin the discussion period, James Woodworth, the director of the Association of Human Detoxification Specialists, described the climate of interest in detoxification among members of the community—whether politicians, firefighters or schools. Among its other activities, the Association intends to establish a Clinical Associates program to provide detoxification training.

Among other issues, the panelists and session participants discussed the applicability of detoxification for persons diagnosed with psychiatric disorders, or those taking psychoactive drugs. The panelists described situations where such persons, under proper supervision, were able to complete the program, often with significant relief of their symptoms.

It was emphasized that psychoactive drugs may not be taken during detoxification. This led to a discussion of other medications that are contraindicated during the program.

## Appendix: Summaries of Published Papers Regarding the Hubbard Detoxification Method

**Evaluation of a Detoxification Regimen for Fat Stored Xenobiotics, *Medical Hypothesis*, Vol. 9, 1982.**

Summary: One hundred and three individuals undergoing detoxification with the Hubbard procedure volunteered to undergo additional physical and psychological tests concomitant with the program. Participants had been exposed to recreational (abused) and medical drugs, patent medicines, occupational and environmental chemicals. Patients with high blood pressure had a mean reduction of 30.8 mm systolic, 23.3 mm diastolic; cholesterol level mean reduction was 19.5 mg/100 ml, while triglycerides did not change. Completion of the detoxification program also resulted in improvements in psychological test scores, with a mean increase in Wechsler Adult Intelligence Scale IQ of 6.7 points. Scores on Minnesota Multiphasic Personality Inventory profiles decreased on Scales (4-7) where high scores are associated with amoral and asocial personalities, psychopathic behavior and paranoia. Medical complications resulting from detoxification were rare, occurring in less than three percent of the subjects.

**Body Burden Reductions of PCBs, PBBs and Chlorinated Pesticide Residues in Human Subjects, *Ambio*, Vol. 13, No. 5-6, 1984.**

Summary: Prior to detoxification, adipose tissue concentrations were determined for seven individuals accidentally exposed to PBBs. The chemicals targeted for analysis included the major congeners of PBBs, PCBs and the residues of common chlorinated insecticides. Of the 16 organohalides examined, 13 were present in lower concentrations following detoxification. Seven of the 13 reductions were statistically significant; reductions ranged from 3.5 to 47.2 percent, with a mean reduction among the 16 chemicals of 21.3 percent (s.d. 17.1 percent). To determine whether reductions reflected movement to other body compartments or actual burden reduction, a post-treatment follow-up sample was taken four months later. Follow-up analysis showed a reduction in all 16 chemicals averaging 42.4 percent (s.d. 17.1 percent) and ranging from 10.1 to 65.9 percent. Ten of the 16 reductions were statistically significant.

**Diagnosis and Treatment of Patients Presenting Subclinical Signs and Symptoms of Exposure to Chemicals Which Accumulate in Human Tissue, *Proceedings of the National Conference on Hazardous Wastes and Environmental Emergencies*, Cincinnati, Ohio, 1985.**

Summary: A discussion of some of the problems in attempting to diagnose and treat low-level body burdens of toxic chemicals. A review of 120 patients who were prescribed detoxification treatment as developed by Hubbard

to eliminate fat-stored compounds showed improvement in 14 of 15 symptoms associated with several types of chemical exposures.

**Reduction of the Human Body Burdens of Hexachlorobenzene and Polychlorinated Biphenyls, *World Health Organization, International Agency for Research on Cancer, Scientific Publications Series*, Volume 77, 1986.**

Summary: Electrical workers paired by age, sex and potential for polychlorinated biphenyl exposure were divided into treatment and control groups. Adipose-tissue concentrations of hexachlorobenzene (HCB), four other pesticides and 10 polychlorinated biphenyl congeners were determined pre- and post-treatment, and three months post-treatment. At post-treatment, all 16 chemicals were found at lower concentrations in the adipose tissues of the treatment group, while 11 were found in higher concentrations in the control group. Adjusted for re-exposure as represented in the control group, HCB concentrations were reduced by 30 percent at post-treatment and 28 percent three months post-treatment. Mean reduction of polychlorinated biphenyl congeners was 61 percent at post-treatment and 14 percent three months post-treatment. These reductions are statistically significant ( $f < 0.001$ ). Enhanced excretion appeared to keep pace with mobilization, as blood-serum levels in the treatment group did not increase during treatment.

**Excretion of a Lipophilic Toxicant Through the Sebaceous Glands: A Case Report, *Journal of Toxicology—Cutaneous and Ocular Toxicology*, Vol. 6, No. 1, 1987.**

Summary: A 23-year-old woman worked at a manufacturing facility, hosing the soot and ash accumulated in the exhaust stack and on the filter pads of an oil-fired generator. She performed this task without protective gear. After six months, she reported feeling ill to the plant nurse. One month later, she was removed from the job, and she remained unable to work for 11 1/2 months because of symptoms relating to toxic chemical exposure. The toxicants were amenable to removal through the sebaceous glands and possibly the gastrointestinal tract by the Hubbard detoxification technique. This was accompanied by remission of her subjective complaints and she was authorized to return to work.

**Improvement in Perception of Transcutaneous Nerve Stimulation Following Detoxification in Firefighters Exposed to PCBs, PCDDs and PCDFs, *Clinical Ecology*, Vol. VI, No. 2, 1989.**

Summary: Seventeen firefighters with a history of acute exposure to polychlorinated biphenyls, dibenzofurans, and dibenzodioxins were evaluated for peripheral neuropathy. Neuropathic evaluation was done using the Neurometer®, a

transcutaneous nerve stimulation device. Prior to detoxification, five of the 17 had abnormal current perception threshold measurements. Following treatment, all showed improvement. Most strikingly, the current perception thresholds of two patients returned to normal range after detoxification. This finding raises the possibility that damage heretofore thought to be permanent may in many instances be partially reversible.

**Occupational, Environmental and Public Health in Semic: A Case Study of Polychlorinated Biphenyl (PCB) Pollution, *Proceedings of the Annual Meeting of the American Society of Civil Engineers*, New Orleans, Louisiana, October, 1989.**

**Summary:** Eleven workers with readily observable symptoms of exposure to PCBs and other chemicals were chosen for detoxification from a group of 24 male volunteers from a factory using PCBs in the manufacture of capacitors. The remaining 13 served as a control group. Detoxification treatment reduced both the body burdens and the symptoms of treated workers while no such improvements occurred in the control group. This study, undertaken in cooperation with the University Medical Center of Ljubljana and the Institut für Toxikologie, University and Technical Faculty of Zurich, supports the use of health screening and detoxification for individuals affected by toxic exposures.

**Human Contamination and Detoxification: Medical Response to an Expanding Global Problem, *Proceedings of the MAB UNESCO Task Force on Human Response to Environmental Stress*, Moscow, 1989.**

**Summary:** Individuals with a variety of workplace exposures were unable to work or had reduced work capacity. Following detoxification, each was able to return to work. Though the results presented are anecdotal, they confirm previous findings in the peer-reviewed literature (Schnare et al., 1982; Roehm, 1983; Schnare et al., 1984; Schnare and Robinson, 1985; Tretjak et al., 1989) and demonstrate that this approach can be effective in reducing body burdens of toxic compounds and returning individuals to the workplace.

**Neurobehavioral Dysfunction in Firemen Exposed to Polychlorinated Biphenyls (PCBs): Possible Improvement after Detoxification, *Archives of Environmental Health*, Vol. 44, No. 6, 1989.**

**Summary:** Fourteen firemen were exposed to polychlorinated biphenyls (PCBs) and their by-products at the site of a transformer fire and explosion. Six months after the fire, they underwent neurophysiological and neuropsychological tests. They were re-studied six weeks after detoxification. A control group of firefighters was selected from firemen who resided in the same city but were not engaged in the fire in question. Initial testing showed that firemen exposed to PCBs had poorer neurobehavioral function than the control group. Significant reversibility of impairment was noted after detoxification.

**PCB Reduction and Clinical Improvement by Detoxification: An Unexploited Approach? *Human and Experimental Toxicology*, Vol. 9, 1991.**

**Summary:** A female worker from a capacitor factory, with a history of exposure to polychlorinated biphenyls (PCBs) and other lipophilic industrial chemicals, was admitted for treatment at the University Medical Centre of Ljubljana, Slovenia (then Yugoslavia). She presented with severe abdominal complaints, chloracne, liver abnormalities and a bluish-green nipple discharge of approximately 50 ml d<sup>-1</sup> in quantity. High PCB levels were noted in adipose tissue (102 mg kg<sup>-1</sup>), serum (512 µg l<sup>-1</sup>), skin lipids (66.3 mg kg<sup>-1</sup>), and in the nipple discharge (712 µg l<sup>-1</sup>). After detoxification, PCB levels in adipose tissue were reduced to 37.4 mg kg<sup>-1</sup> and in serum to 261 µg l<sup>-1</sup>, respective reductions of 63 percent and 49 percent. Excretion of intact PCBs in sebum, appreciable before treatment, was enhanced by up to five-fold during detoxification. The nipple discharge ceased early in the detoxification regimen.

**Xenobiotic Reduction and Clinical Improvements in Capacitor Workers: A Feasible Method, *Journal of Environmental Science and Health*, Vol. A25, No. 7, 1990.**

**Summary:** Eleven capacitor workers, occupationally exposed to PCBs and other industrial chemicals, underwent detoxification. Thirteen co-workers served as controls. Mean PCB levels prior to detoxification were 28.0 mg/kg in adipose and 188.0 µg/L in serum. Following detoxification, PCBs were reduced in serum by 42 percent (p<0.05) and in adipose by 30 percent for patients without concurrent disease. Patients with concurrent disease had a 10 percent reduction in adipose levels, while serum levels remained unchanged. Both adipose and serum PCB levels increased in members of the control group. At a four-month follow up examination, these differences were maintained, though the mean adipose PCB values in all groups were higher than at post-treatment. All patients reported marked improvement in clinical symptoms post-treatment, with most of these improvements retained at follow-up. No such improvements were noted in controls.

**Treatment of Pesticide-Exposed Patients with the Hubbard Method of Detoxification. *Presentation at the 120th Annual Meeting of the American Public Health Association*, 1992.**

**Summary:** A review of the efficacy of detoxification in addressing the complaints of 155 patients who had experienced significant exposures to pesticides. Treatment effected reductions in chemical levels in adipose tissue, and a concomitant decrease in symptomatic complaints.

**Neurotoxicity and Toxic Body Burdens: Relationship and Treatment Potentials, *Proceedings of the International Conference on Peripheral Nerve Toxicity*, 1993.**

**Summary:** Many chemicals have neurotoxic health effects of long duration, leading to the conclusion that these effects are essentially irreversible. This paper proposes that the accumulation and persistence of neurotoxic chemicals in adipose

tissue may play a role in the prolongation of neurotoxic effects. If this were the case, an approach designed to reduce body burdens of fat-soluble compounds should lead to a similar reduction in neurotoxic effects. Transcutaneous current perception thresholds were measured using the Neurometer® device in 48 patients exhibiting neurotoxic effects both before and after detoxification. Following detoxification, marked improvements were noted in both peripheral neuropathy and self-reported patient profiles.

**Reduction of Drug Residues: Applications in Drug Rehabilitation, Presentation at the 123rd Annual Meeting of the American Public Health Association, 1995.**

Summary: Drug residues and their lipophilic metabolites are associated with persistent symptoms; their mobilization into blood correlates with drug cravings. The concentration of drug metabolites in both sweat and urine was measured in eight individuals who had been actively using drugs prior to detoxification. Cocaine, opiate, and benzodiazepan metabolites were detected by fluorescent immunoassay in both sweat and urine. Low levels (not indicative of use) continued to be eliminated for several weeks. In two cases, drug levels were below detection prior to treatment but became detectable during detoxification. A separate series of 249 clients with a history of drug abuse rated the severity of their symptoms before and after detoxification. Chief symptomatic complaints prior to detoxification included fatigue, irritability, depression, intolerance of stress, reduced attention span and decreased mental acuity. (These same symptoms were dominant in those who had ceased active drug abuse over a year prior to treatment.) Following detoxification, both past and current users reported marked improvements in symptoms, with most returning to normal range.

**Treatment of Children with the Detoxification Method Developed by Hubbard, Presentation at the 123rd Annual Meeting of the American Public Health Association, 1995.**

Summary: Eighteen children from ten families were referred for detoxification. Their chief complaints included environmental sensitivity, headaches, chronic fatigue, allergies, respiratory problems and recurrent infections. In each case, the entire family had become ill following a known change (e.g., application of pesticides, installation of improperly cured carpet) in their environment. The ages of the children ranged from neonatal to 15 at the time of exposure, with treatment ages ranging from 4 to 21. Treatment resulted in improvements in symptom profiles, with at least 89 percent of the children reporting long-term improvements in their symptoms.

**Precipitation of Cocaine Metabolites in Sweat and Urine of Addicts Undergoing Sauna Bath Treatment, Fifty-Seventh Annual Scientific Meeting, National Institute on Drug Abuse, College on Problems of Drug Dependency, 1995.**

Summary: Four subjects (three males and one female) admitted to a residential treatment program were selected for

study. All met DSM-III-R criteria for cocaine dependence and ingested cocaine by smoking. The duration of their use of the drug ranged from eight months to 18 years, and they reported cocaine use on over 75 percent of days in the month just prior to treatment. Three reported last use of cocaine within 48 hours of admission; one reported last use 25 days prior to program entry. Urine and sweat samples were collected from subjects every two to three days during detoxification and analyzed by fluorescent immunoassay. Cocaine metabolites were detectable in both sweat and urine of all subjects. Three of the four subjects showed a measurable increase in sweat or urine cocaine metabolite concentrations at the beginning of detoxification. Two subjects demonstrated negative urine samples prior to detoxification, but demonstrated the presence of metabolites when detoxification commenced.

**Reduction of the Radioisotope Cs-137 Using the Detoxification Method Developed by Hubbard, Presentation at the 124th Annual Meeting of the American Public Health Association, 1996.**

Summary: Fourteen children living in the plume path of the destroyed Chernobyl reactor underwent detoxification. Each was periodically measured using a portable radiation detection system capable of measuring the characteristic gamma ray emitted during the radioactive decay of Cs-137. (Five such measures were made over the course of approximately four weeks.) Elimination rates were compared to expected rates of elimination from published studies. Children uniformly eliminated Cs-137 more rapidly than expected, with the exception of two cases in which children were eating contaminated treats from home. (Rapid elimination of Cs-137 resumed when these items were eliminated from their diets.)

# Appendix: A Review of Scientific Literature Supporting the Detoxification Method Developed by L. Ron Hubbard

## I. Contamination With Synthetic Chemicals

Human exposure to toxic chemicals has dramatically increased in the last century. Millions of compounds have been formulated and some 70,000 are now in commercial use. The environmental persistence of many of these compounds is cause for concern. In addition, many of these synthetic compounds accumulate in biological organisms (“bioaccumulation”), storing in bone, fat, or another compartment of the body.

Hundreds of these compounds are found in U.S. citizens, with many present in each of us (1). In addition to commercial compounds, many drugs—both pharmaceutical and so-called recreational—can remain in the body for an extended time. Drugs such as LSD (2,3), PCP (4), cocaine (5), marijuana (6) and diazepam (7) are found in fat. These drugs can be retained for extended periods, especially under conditions of chronic use (5,8-11).

Adverse health effects have been shown for some of these compounds. Health effects from most compounds have not, however, been studied in detail. Further, the health effects from combinations of chemicals are unknown. It is clearly preferable to have low levels of foreign compounds rather than high.

## II. Reduction of Bioaccumulated Compounds

While we still do not fully understand the bio-active mechanisms or the kinetics of many toxic substances, physicians have known for centuries that health problems can ensue as a result of accumulations of xenobiotics (foreign chemicals) and have looked for ways to safely and effectively reduce body burdens.

Ramazzini, in his 1713 work, *Diseases of Workers*, notes that writers of works on poisons at that time “advise, in general, remedies that have the power of setting the spirits and blood mass in motion and of provoking sweat” (12), a recommendation which aligns well with current knowledge of the kinetics and metabolism of foreign compounds.

Approaches to handling bioaccumulation of harmful chemicals depend on increasing the rate of removal of these compounds. This is accomplished by either altering the compound to a non-toxic form or by enhancing the rate of elimination.

This philosophy has been applied in many ways. In acute poisoning, purging is a key means of removing the toxic compound before adverse effects arise. For this reason, a strong purgative is included in the highly toxic pesticide, paraquat.

Ingestion of compounds known to bind to the contaminating compound has been used in some cases. This increases the rate of removal of the toxic compound because it cannot be reabsorbed as it passes through the intestine. In this manner, cholestyramine was successfully used to reduce levels of Kepone (13), and Prussian blue was used to reduce levels of radio-active cesium (14).

A fasting technique has been used to enhance the mobilization of fat-stored compounds. This approach resulted in improved symptoms in 16 PCB-exposed Taiwanese patients (15), although the levels of PCBs in the blood of these patients increased.

Ethylenediaminetetraacetate (EDTA) has been used for many years in the treatment of lead toxicity. EDTA binds to lead and other compounds in the blood, the resultant complex then being eliminated. (16,17)

Reduction of fat-stored chemicals must be aimed at mobilizing chemicals from fat stores, distributing the mobilized chemical to routes of elimination, and increasing the rate at which these routes are utilized. This is the design behind the detoxification procedure developed by Hubbard.

## III. The Detoxification Program Developed by L. Ron Hubbard

This program was designed to mobilize and enhance the elimination of fat-stored xenobiotics. The Hubbard program was specifically developed to reduce levels of drug residues but has proven to be applicable to the reduction of other fat-stored compounds. The program has gained widespread support due to its effectiveness and the fact that it is well supported by the medical literature. Each component of the program is in alignment with current research on the mobilization of fat stores and the facilitation of toxin elimination. The components of this program are:

### A. Exercise:

Fat is stored throughout the body, with significant deposits not only in adipose tissue but in cellular reserves, membranes, etc. Exercise is aimed at both promoting deep circulation in the tissues and enhancing the turnover of fats.

Numerous studies have shown that exercise promotes the circulation of blood to tissues (18) and also promotes mobilization of lipid from storage depots (19-24).

Mobilization of fat stores is accompanied by mobilization of the toxins stored in the fatty tissue (25-27).

### B. Sauna:

Mobilization of chemicals is not desirable if routes of elimination are not enhanced. Chemicals are excreted through many routes including feces, urine, sweat, sebum, and lung vapor.

The purposes of the sauna aspect of this program are twofold. Heat stress is a means of increasing circulation (28) and of enhancing the elimination of compounds through both sweat and sebum. It is documented that methadone (29), amphetamines (30), methamphetamines and morphine (31), copper (32), mercury (33), additional metals (34) and other compounds appear in human sweat. Enhancement of this elimination route is a key purpose of the sauna aspect of this program.

In addition to an increase in sweat production, increased body temperature results in heightened production of sebum, the material produced by the skin's sebaceous glands (35). In

patients exhibiting "chloracne," a specific skin disorder caused by chemical exposure, the causative compounds may be detected both in adipose tissue and in sebum of the skin (36).

Though not a major route of elimination for polychlorinated biphenyls (PCBs), PCBs may be found in sebum of exposed individuals (37). Both the concentration of PCBs and the quantity of sebum produced have been shown to increase during the detoxification program developed by Hubbard (38).

#### C. Supplements:

##### Niacin

Effects of specific vitamins are utilized as well. Niacin has a long-term effect of reducing the mobilization of fatty acids (39). However, the initial reduction in mobilized fatty acids following a single dose is followed by a transitory increase in free fatty acid mobilization (40,41).

Mobilization of free fatty acids by other mechanisms has been shown to result in concurrent mobilization of the fat-stored chemicals (26,27). This also appears to occur during this detoxification program. The increased turnover of fat results in mobilization of fat-stored chemicals and the opportunity to eliminate them from the body.

##### Polyunsaturated Oils

One means of excretion of chemicals is through the bile. However, such bile excretion results in elevated levels of chemicals in the intestine, providing an opportunity for reabsorption of these compounds (42,43).

It has been known for many years that addition of unsaturated oils to the diet can increase the excretion rate of certain compounds. This is due either to blocking the reabsorption of the chemical or to altering the rate at which the compound is excreted (45).

Supplementation with unsaturated fats also affects the content of the stored adipose tissue (45). Apparently, as the stored fats are mobilized and restored, the dietary supplements replace some of the mobilized fats so that an exchange is effected.

##### Vitamin Supplementation

Vitamin and mineral supplementation is included for several reasons. Replacement of vitamins and minerals lost through sweating is one reason. Correction of any deficiencies is necessary as well.

Extensive sweating is a component of this program. As significant levels of vitamins and minerals appear in sweat, their loss through sweating could create deficiencies were they not replaced.

Deficiencies may already be present. Specific vitamin, mineral and amino acid deficiencies are known consequences of alcohol and drug abuse, due either to poor nutrition or to the action of the drugs themselves (46-48). PCB poisoning in animals has been shown to result in a significant decrease of vitamin A in the liver and serum (49,50).

Further, research in animals has demonstrated that vitamin deficiencies retard the metabolism of drugs (51). Changes in nutrient levels, with consequent adverse effects on metabolism, may occur with other chemicals as well.

Supplementation with vitamins is anticipated to assist the individual in several ways. Such supplementation will certainly assist in correction of nutritional deficiencies. It might also be expected to aid in the metabolism of chemicals.

#### D. Sufficient liquids to offset the loss of body fluids through sweating:

This is a logical necessity during any extended period of sweating. In addition to liquid supplementation, sodium, potassium, calcium-magnesium solution and cell salts are taken on an individual basis. Patients undergoing this detoxification program are monitored to ensure signs of heat exhaustion or salt depletion do not appear.

#### E. Regular diet supplemented with plenty of fresh vegetables:

This program is not a dietary program. The only change in diet required by patients on this program is that they eat plenty of fresh vegetables. This ensures that bowel movements remain regular.

#### F. A properly ordered personal schedule which provides the person with the normally required amount of sleep:

The detoxification program is intensive. The mobilization and elimination of stored chemicals can put a stress on the individual's body. Therefore, it is imperative that individuals ensure that they are well-rested during the program.

#### IV. Studies Regarding the Detoxification Program Developed by L. Ron Hubbard

##### A. Safety of the Program

An initial study of 103 individuals demonstrated the safety of this program. Medical complications associated with the program occurred in less than 3 percent of the individuals and were minor in nature. There was one case of pneumonia, one of ear infection, and one case of diarrhea during the approximately three weeks of program delivery. Reductions in blood pressure and cholesterol were benefits of the program. The program also resulted in improvements in psychological test scores. (52)

This program is designed to mobilize and eliminate fat-stored chemicals. During any such program in which xenobiotics are deliberately mobilized from fat stores, it is important that elimination keep pace with this mobilization process. Otherwise it is possible that mobilization will result in heightened blood concentrations of the mobilized compounds.

Blood levels of chemicals were monitored in a study of electrical workers conducted by Schnare & Robinson (53). They showed that blood levels of both PCBs and pesticides were fairly consistent over the course of treatment. Thus, elimination of compounds appeared to keep pace with their mobilization during this study.

##### B. Results of Detoxification

The detoxification method developed by Hubbard has been shown to reduce levels of several fat-stored chemicals. Studies of this method have focused on individuals who have accumulated fat-soluble compounds through either occupational or environmental exposure.

In 1983, Roehm reported reductions in DDE and PCBs and clearing of symptoms in a Vietnam vet with a range of symptoms (54).

A 1984 study demonstrated statistically significant reductions of from 10.1 to 65.9 percent for sixteen fat-stored compounds. The compounds tested included polychlorinated biphenyls (PCBs), polybrominated biphenyls (PBBs) and chlorinated pesticides. The study population had been specifically exposed to PBBs approximately 10 years prior to treatment. Reductions in PBBs were 58.7 percent ( $p < 0.05$ ) when treated with the Hubbard method. (55) According to independent evaluation, the chemical levels for PBBs had not reduced during the five years prior to treatment (56).

In a controlled study, electrical workers exposed to hexachlorobenzene (HCB), PCBs and other compounds, were treated with the Hubbard method. Statistically significant reductions of 30 percent for HCB and 16 percent for PCBs were observed. These reductions were stable at follow-up observations 3 months subsequent to treatment. (53)

Further documentation of PCB reduction was reported in the case of a female factory worker from Yugoslavia. Her excessive PCB levels (102 mg/kg in adipose and 512  $\mu\text{g/L}$  in serum—approximately 50 times higher than the general population) were reduced by 63 percent in adipose and 49 percent in serum following treatment. In addition, a spontaneous breast discharge containing PCBs ceased during treatment. This woman's symptoms also improved over the course of treatment. (38)

Improvements in this woman led to a controlled study of a group of male co-workers. Again, reductions in PCB levels were observed and improvements in symptoms noted for the group treated with the Hubbard method (57,58).

As the number of toxic chemicals in the workplace increases, it is sometimes difficult to identify the exact nature of a toxicant. Such was the case for a woman exposed to both the residues trapped in filters from the exhaust stacks of an oil-fired electrical generator and the contaminated water used to clean these filters. She became ill following six months of such exposure and was unable to work. During treatment with the Hubbard method a black substance began oozing from her pores. This abated late in treatment. Both her objective and subjective complaints were reduced following treatment and she was able to return to work. (59)

Firefighters are often exposed to toxic compounds in the course of their work. Such was the case for a group of firefighters responding to a fire involving transformers filled with PCBs. Several of these men became ill following the fire.

Neurophysiological and neuropsychological tests were conducted on 14 of these firefighters six months after the fire. This battery of 22 tests demonstrated that the firefighters who had been involved with the fire were significantly impaired in both memory and cognitive functions when compared to co-workers from the same department who had not participated in fighting this fire. (Scores for 13 of the 22 tests were significantly worse in the exposed firefighters.)

Following treatment with the detoxification method developed by Hubbard, significant improvements in 6 of the 13 tests originally showing impairment were noted. (60)

These firefighters were also tested for peripheral nerve dam-

age. Five of the 17 firefighters tested showed significant peripheral neuropathy. All showed improvement following treatment with the Hubbard method, with two of the five returning to normal range. (61)

Many people have experienced adverse health effects after exposure to compounds whose identity is unknown. The detoxification program has been shown effective in alleviating symptoms in such patients. In one study, the selected patient population reported symptom profiles prior to treatment that were in alignment with chemically exposed individuals reported by other authors (not statistically different). Following treatment, their symptom profiles had improved significantly and were now not significantly different from a healthy population. (62)

#### V. Summary

This body of peer-reviewed literature substantiates the effectiveness of the Hubbard program in reducing levels of foreign compounds stored in fat and in improving the symptom profiles of chemically exposed individuals. Health benefits of this program are not limited to symptomatic improvements. In the case of documented impairments in neurological function, these impairments were shown by two independent approaches to be significantly improved by detoxification treatment.

This program has proven to be a safe and effective addition to clinical practice. As the quantity and variety of chemicals employed in our society increase, it can be expected that this program will become increasingly relevant.

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## References

1. Stanley JS (1986) *Broad Scan Analysis of Human Adipose Tissue: Volume 1: Executive Summary* EPA 560/5-86-035.
2. Axelrod J, Brady RO, Witkop B and Evarts EV (1957) The distribution and metabolism of lysergic acid diethylamide. *Ann NY Acad Sci* 66:435-444.
3. Stolman A (1974) The absorption, distribution, and excretion of drugs and poisons and their metabolites. In: *Progress in Chem Tox, Vol. 5, A* Stolman, ed., Academic Press, pp 1-99.
4. James SH and Schnoll SH (1976) Phencyclidine: Tissue distribution in the rat. *Clin Tox* 9:573-582.
5. Nayak PK, Misra AL and Mulé SJ (1976) Physiological disposition and biotransformation of [3H]cocaine in acutely and chronically treated rats. *J Pharmacol & Exper Ther* 196:556-569.
6. Rodger L. Foltz, Ph.D., Personal communication.
7. Friedman H, Ochs HR, Greenblatt DJ and Shader RI (1985) Tissue distribution of diazepam and its metabolite desmethyl-diazepam: A human autopsy study. *J Clin Pharmacol* 25:613-615.
8. Dackis CA, Pottash ALC, Annitto W and Gold MS (1982) Persistence

- of urinary marijuana levels after supervised abstinence. *Am J Psychiatry* 139:1196-1198.
9. Martin BR (1982) Long-term disposition of phencyclidine in mice. *Drug Metabolism and Disposition* 10:189-193.
  10. Weiss RD (1988) Protracted elimination of cocaine metabolites in long-term, high-dose cocaine abusers. *Amer J Med* 85:879-880.
  11. Cone EJ and Weddington Jr. WW (1989) Prolonged occurrence of cocaine in human saliva and urine after chronic use. *J Analytical Toxicol* 13:65-68.
  12. Ramazzini, B (1713) *Diseases of Workers*, New York Academy of Medicine, History of Medicine Series, Vol. 23, Hafner Publishing Co., New York, 1964.
  13. Guzelian PS (1982) Chlordecone poisoning: A case study in approaches of detoxification of humans exposed to environmental chemicals. *Drug Metab Reviews* 13:663-679.
  14. Ricks R et al. (1989) *The Radiological Accident in Goiania*, Unipub Publications, Lanham, MD. (Reported by Hixson JR in *Medical Tribune*, Thursday, September 22, 1988)
  15. Imamura M, Tung T-C (1984) A trial of fasting cure for PCB poisoned patients in Taiwan. *Am J Ind Med* 5:147-153.
  16. Chisolm Jr. JJ (1968) The use of chelating agents in the treatment of acute and chronic lead intoxication in childhood. *J Pediatrics* 73:1-38.
  17. Wedeen RP, Batuman V and Landy E (1983) The safety of the EDTA lead-mobilization test. *Env Research* 30:58-62.
  18. Bulow J (1983) Adipose tissue blood flow during exercise. *Danish Medical Bulletin* 30(2):85-100.
  19. Friedberg SJ, Harlan Jr. WR, Trout DL, Estes Jr. EH (1960) The effect of exercise on the concentration and turnover of plasma nonesterified fatty acids. *J Clin Invest* 39:215.
  20. Carlson LA and Pernow B (1961) Studies on blood lipids during exercise. *J Lab and Clin Med* 58:673-681.
  21. Friedberg SJ, Sher PB, Bogdonoff MD and Estes Jr. EH (1963) The dynamics of plasma free fatty acid metabolism during exercise. *J Lipid Research* 4:34-38.
  22. Horstman D, Mendez J, Buskirk ER, Boileau R and Nicholas WS (1971) Lipid metabolism during heavy and moderate exercise. *Med and Sci in Sports* 3:18-23.
  23. Taylor AW, Shoemann DW, Lovlin R and Lee S (1971) Plasma free fatty acid mobilization with graded exercise. *J Sports Med* 11:234-240.
  24. Wirth A, Schlierf G and Schetler G (1979) Physical activity and lipid metabolism. *Klin Wochenshri* 57:1195.
  25. Findlay GM and de Freitas ASW (1971) DDT movement from adipocyte to muscle cell during lipid utilization. *Nature* 229:63.
  26. de Freitas AS and Norstrom RJ (1974) Turnover and metabolism of polychlorinated biphenyls in relation to their chemical structure and the movement of lipids in the pigeon. *Can J Physiol Pharmacol* 52:1081-1094.
  27. Mitjavila S, Carrera G and Fernandez Y (1981) II. Evaluation of the toxic risk of accumulated DDT in the rat: During fat mobilization. *Arch Environ Contam Toxicol* 10:471-481.
  28. Seba DB (1990) Thermal chamber depuration: A perspective on man in the sauna. *Clinical Ecology* 7:1-12.
  29. Henderson GL and Wilson BK (1973) Excretion of methadone and metabolites in human sweat. *Res Comm Chem Path & Pharmac* 5:1-8.
  30. Vree TB, Muskens ATJM, and Van Rossum JM (1972) Excretion of amphetamines in human sweat. *Arch Int Pharmacodyn* 199:311-317.
  31. Ishiyama I, Nagai T, Nagai T, Komuro E, Momose T and Akimori N (1979) The significance of drug analysis of sweat in respect to rapid screening for drug abuse. *Z Rechtsmed* 82:251-256.
  32. Sunderman Jr. FW, Hohnadel DC, Evenson MA, Wannamaker BB and Dahl DS (1974) Excretion of copper in sweat of patients with Wilson's disease during sauna bathing. *Ann Clin Lab Sci* 4:407.
  33. Stopford W (1979) Industrial exposure to mercury. In: *The Biogeochemistry of Mercury in the Environment*, Elsevier/North-Holland Biomedical Press, pp 367-397.
  34. Hohnadel DC, Sunderman FW, Nechay MW and McNeely MD (1973) Atomic absorption spectrometry of nickel, copper, zinc, and lead in sweat collected from healthy subjects during sauna bathing. *Clinical Chemistry* 19:1288-1292.
  35. Abe T, Mayuzumi J, Kikuchi, Arai S (1980) Seasonal variations in skin temperature, skin pH, evaporative water loss and skin surface lipid values on human skin. *Chem Pharm Bull* 28:387-392.
  36. Kimbrough RD (1974) The toxicity of polychlorinated polycyclic compounds and related chemicals. *CRC Critical Rev Toxicol* 2:445-499.
  37. Kimbrough RD (1980) Occupational exposure. In: *Halogenated biphenyls, terphenyls, naphthalenes, dibenzodioxins and related products*, Kimbrough RD, ed., Elsevier/North Holland Biomedical Press, Amsterdam, pp 373-399.
  38. Tretjak Z, Shields M and Beckmann SL (1990) PCB reduction and clinical improvement by detoxification: An unexploited approach? *Human and Experimental Toxicology* 9:235-244.
  39. Carlson LA (1970) Nicotinic acid: its metabolism and its effects on plasma free fatty acids. In: *Metabolic Effects of Nicotinic Acid and its Derivatives*, Gey KF and Carlson LA, eds., Hans Huber, Switzerland, pp 157-165.
  40. Carlson LA, Orö L and Ostman J (1968) Effect of a single dose of nicotinic acid on plasma lipids in patients with hyperlipoproteinemia. *Acta med scand* 183:457-465.
  41. Nye ER and Buchanon B (1969) Short-term effect of nicotinic acid on plasma level and turnover of free fatty acids in sheep and man. *J Lipid Research* 10:193-196.
  42. Smith RL (1973) Implications of Biliary Excretion (Chapter 8), In: *The Excretory Function of Bile*, Chapman and Hall, Ltd., London.
  43. Parker RJ, Hirom PC and Millburn P (1980) Enterohepatic recycling

of phenolphthalein, morphine, lysergic acid diethylamide (LSD) and diphenylacetic acid in the rat. Hydrolysis of glucuronic acid conjugates in the gut lumen. *Xenobiotica* 10:689-703.

44. Moore RB, Anderson JT, Taylor HL, Keys A and Frantz ID (1968) Effect of dietary fat on the fecal excretion of cholesterol and its degradation products in man. *J Clinical Investigation* 47:1517-1534.

45. Shepherd J, Stewart JM, Clark JG and Carr K (1980) Sequential changes in plasma lipoproteins and body fat composition during polyunsaturated fat feeding in man. *Br J Nutr* 44:265-271.

46. Bonjour JP (1980) Vitamins and Alcoholism. *Internat J Vit Nutr Res* 50:215-230;307- 338; 51:166-177.

47. Russell RM (1980) Vitamin A and zinc metabolism in alcoholism. *Am J Clin Nut* 33:2741-2749.

48. Roe, DA (1984) Nutrient and drug interactions. *Nutrition Reviews* 42:141-154.

49. Innami S, Nakamura A, Miyazaki M, Nagayama S and Nishide E (1977) Further studies on the reduction of vitamin A content in the livers of rats given polychlorinated biphenyls. *J Nutr Sci Vitaminol* 22:409-418.

50. Kato N, Kato M, Kimura T and Yoshida A (1978) Effect of dietary addition of PCB, DDT or HGT and dietary protein on vitamin A and cholesterol metabolism. *Nutr Rep Int* 18:437-445.

51. Brin M and Roe D (1979) Drug-diet interactions. *J Florida MA* 66:424-428.

52. Schnare DW, Denk G, Shields M and Brunton S (1982) Evaluation of a detoxification regimen for fat stored xenobiotics. *Med Hyp* 9:265-282.

53. Schnare DW and Robinson PC (1986) Reduction of human body burdens of hexachlorobenzene and polychlorinated biphenyls. In *Hexachlorobenzene: Proceedings of an International Symposium*, CR Morris and JRP Cabral, eds., International Agency for Research on Cancer, Lyon, France, pp 597-603.

54. Roehm D (1983) Effects of a program of sauna baths and megavitamins on adipose DDE and PCBs and on clearing of symptoms of Agent Orange (dioxin) toxicity. *Clin Res* 31(2):243a.

55. Schnare DW, Ben M and Shields MG (1984) Body burden reductions of PCBs, PBBs and chlorinated pesticides in human subjects. *Ambio* 13:378-380.

56. Wolff MS, Anderson HA and Selikoff IJ (1982) Human tissue burdens of halogenated aromatic chemicals in Michigan. *JAMA* 247:2112-2116.

57. Tretjak Z, Beckmann S, Tretjak A and Gunnerson C (1989) Occupational, environmental, and public health in Semic: A case study of polychlorinated biphenyl (PCB) pollution. In *Post-Audits of Environmental Programs & Projects*, C Gunnerson, ed., ASCE, New York, NY, pp 57-72.

58. Tretjak Z, Root DE, Tretjak A, Slivnik R, Edmondson E, Graves R and Beckmann SL (1990) Xenobiotic reduction and clinical improvements in capacitor workers: A feasible method. *J Env Sci and Health, A25:731-751*.

59. Root DE and Lionelli GT (1987) Excretion of a lipophilic toxicant

through the sebaceous glands: A case report. *J Toxicol—Cut & Ocular Toxicol* 6:13-17.

60. Kilburn KH, Warsaw RH and Shields MG (1989) Neurobehavioral dysfunction in firemen exposed to polychlorinated biphenyls (PCBs): Possible improvement after detoxification. *Arch Env Health* 44:345-350.

61. Shields M, Beckmann SL and Cassidy-Brinn G (1989) Improvement in perception of transcutaneous nerve stimulation following detoxification in firefighters exposed to PCBs, PCDDs and PCDFs. *Clinical Ecology* 6:47-50.

62. Root DE, Katzin DB, Schnare DW (1985) Diagnosis and treatment of patients presenting subclinical signs and symptoms of exposure to chemicals which bioaccumulate in human tissue. In: *Proceedings of the National Conference on Hazardous Wastes and Environmental Emergencies*, May 14-16.



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