

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."