



Contract # \_\_\_\_\_

# STATE OF UTAH CONTRACT

1. CONTRACTING PARTIES: This contract is between the following Department of the State of Utah:

080 - Attorney General Executive referred to as STATE, and the following  
Department Name Division

CONTRACTOR American Detoxification Foundation

LEGAL STATUS OF CONTRACTOR

3090 So Main St.

Name

- Sole Proprietor
- Non-Profit Corporation
- For-Profit Corporation
- Partnership
- Government Department

Address

SALT LAKE CITY

UT

84115

City

State

Zip

Sandra Lucas

484-1430

Contact Person

Phone Number

Email utahdetox@yahoo.com

20 8879081

VC0000118574

Federal ID#

Vendor Number

Commodity Code(s)

2. GENERAL PURPOSE OF CONTRACT:

SEE ATTACHMENT

3. PROCUREMENT: This contract is entered into as a result of the procurement process on RQM# 080 8000000009, FY 2008, Bid# \_\_\_\_\_, or a pre-approved sole source authorization (from the Division of Purchasing) # SS \_\_\_\_\_.

4. CONTRACT PERIOD: Effective date 04/30/2008. Termination date 09/30/2008, unless terminated early or extended in accordance with the terms and conditions of this contract. Renewal options (if any) \_\_\_\_\_  
MM/DD/YYYY MM/DD/YYYY

5. CONTRACT COSTS: CONTRACTOR will be paid a maximum of \$100,000.00 for costs authorized by this contract. Additional information regarding costs: N/A

6. ATTACHMENT A: Division of Purchasing's Standard Terms and Conditions.

ATTACHMENT B: Scope of Work.

ATTACHMENT C: \_\_\_\_\_

Any conflicts between Attachment A and other Attachments will be resolved in favor of Attachment A.

7. DOCUMENTS INCORPORATED INTO THIS CONTRACT BY REFERENCE BUT NOT ATTACHED:

a. All other governmental laws, regulations, or actions applicable to the goods and/or services authorized by this contract.

b. Utah State Procurement Code, Procurement Rules, and Contractor's response to Bid # \_\_\_\_\_, dated \_\_\_\_\_  
MM/DD/YYYY

IN WITNESS WHEREOF, the parties sign and cause this contract to be executed.

CONTRACTOR

STATE OF UTAH

Contractor's Signature

Department Signature

American Detoxification Foundation

Contractor's Name

Sandra Lucas  
Director, Division of Purchasing

Title

Director, Division of Finance

SHARON CONRAD

Department Contact

366-0232

Phone Number

366-0221

Fax Number

SCONRAD@UTAH.GOV

Email

## ATTACHMENT A: STATE OF UTAH STANDARD TERMS AND CONDITIONS

1. **AUTHORITY:** Provisions of this contract are pursuant to the authority set forth in 63-56, Utah Code Annotated, 1953, as amended, Utah State Procurement Rules (Utah Administrative Code Section R33), and related statutes which permit the State to purchase certain specified services, and other approved purchases for the State.
2. **CONTRACT JURISDICTION, CHOICE OF LAW, AND VENUE:** The provisions of this contract shall be governed by the laws of the State of Utah. The parties will submit to the jurisdiction of the courts of the State of Utah for any dispute arising out of this Contract or the breach thereof. Venue shall be in Salt Lake City, in the Third Judicial District Court for Salt Lake County.
3.  **LAWS AND REGULATIONS:** Any and all supplies, services and equipment furnished will comply fully with all applicable Federal and State laws and regulations.
4.  **RECORDS ADMINISTRATION:** The Contractor shall maintain, or supervise the maintenance of all records necessary to properly account for the payments made to the Contractor for costs authorized by this contract. These records shall be retained by the Contractor for at least four years after the contract terminates, or until all audits initiated within the four years, have been completed, whichever is later. The Contractor agrees to allow State and Federal auditors, and State Department Staff, access to all the records to this contract, for audit and inspection, and monitoring of services. Such access will be during normal business hours, or by appointment.
5.  **CONFLICT OF INTEREST:** Contractor represents that none of its officers or employees are officers or employees of the State of Utah, unless disclosure has been made in accordance with 67-16-8, Utah Code Annotated, 1953, as amended.
6.  **CONTRACTOR, AN INDEPENDENT CONTRACTOR:** The Contractor shall be an independent contractor, and as such, shall have no authorization, express or implied, to bind the State to any agreements, settlements, liability, or understanding whatsoever, and agrees not to perform any acts as agent for the State, except as herein expressly set forth. Compensation stated herein shall be the total amount payable to the Contractor by the State. The Contractor shall be responsible for the payment of all income tax and social security amounts due as a result of payments received from the State for these contract services. Persons employed by the State and acting under the direction of the State shall not be deemed to be employees or agents of the Contractor.
7.  **INDEMNITY CLAUSE:** The Contractor agrees to indemnify, save harmless, and release the State of Utah, and all its officers, agents, volunteers, and employees from and against any and all loss, damages, injury, liability, suits, and proceedings arising out of the performance of this contract which are caused in whole or in part by the negligence of the Contractor's officers, agents, volunteers, or employees, but not for claims arising from the State's sole negligence.
8.  **EQUAL OPPORTUNITY CLAUSE:** The Contractor agrees to abide by the provisions of Title VI and VII of the Civil Rights Act of 1964 (42 USC 2000e) which prohibits discrimination against any employee or applicant for employment or any applicant or recipient of services, on the basis of race, religion, color, or national origin; and further agrees to abide by Executive Order No. 11246, as amended, which prohibits discrimination on the basis of sex; 45 CFR 90 which prohibits discrimination on the basis of age; and Section 504 of the Rehabilitation Act of 1973, or the Americans with Disabilities Act of 1990 which prohibits discrimination on the basis of disabilities. Also, the Contractor agrees to abide by Utah's Executive Order, dated March 17, 1993, which prohibits sexual harassment in the work place.
9.  **SEPARABILITY CLAUSE:** A declaration by any court, or any other binding legal source, that any provision of this contract is illegal and void shall not affect the legality and enforceability of any other provision of this contract, unless the provisions are mutually dependent.
10.  **RENEGOTIATION OR MODIFICATIONS:** This contract may be amended, modified, or supplemented only by written amendment to the contract, executed by the same persons or by persons holding the same position as persons who signed the original agreement on behalf of the parties hereto, and attached to the original signed copy of the contract.
11.  **DEBARMENT:** The Contractor certifies that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction (contract), by any governmental department. If the Contractor cannot certify this statement, attach a written explanation for review by the State. The Contractor must notify the State Director of Purchasing within 30 days if debarred by any governmental entity during the Contract period.
12. **TERMINATION:** Unless otherwise stated in the Special Terms and Conditions, this contract may be terminated, with cause by either party, in advance of the specified termination date, upon written notice being given by the other party. The party in violation will be given ten (10) working days after notification to correct and cease the violations, after which the contract may be terminated for cause. This contract may be terminated without cause, in advance of the specified expiration date, by either party, upon 90 days prior written notice being given the other party. On termination of this contract, all accounts and payments will be processed according to the financial arrangements set forth herein for approved services rendered to date of termination.
13. **NONAPPROPRIATION OF FUNDS:** The Contractor acknowledges that the State cannot contract for the payment of funds not yet appropriated by the Utah State Legislature. If funding to the State is reduced due to an order by the Legislature or the Governor, or is required by State law, or if federal funding (when applicable) is not provided, the State may terminate this contract or proportionately reduce the services and purchase obligations and the amount due from the State upon 30 days written notice. In the case that funds are not appropriated or are reduced, the State will reimburse Contractor for products delivered or services performed through the date of cancellation or reduction, and the State will not be liable for any future commitments, penalties, or liquidated damages.

14. **SALES TAX EXEMPTION:** The State of Utah's sales and use tax exemption number is E33399. The tangible personal property or services being purchased are being paid from State funds and used in the exercise of that entity's essential functions. If the items being purchased are construction materials, they will be converted into real property by employees of this government entity, unless otherwise stated in the contract.
15. **WARRANTY:** The contractor agrees to warrant and assume responsibility for all products (including hardware, firmware, and/or software products) that it licenses, contracts, or sells to the State of Utah under this contract for a period of one year, unless otherwise specified and mutually agreed upon elsewhere in this contract. The contractor (seller) acknowledges that all warranties granted to the buyer by the Uniform Commercial Code of the State of Utah apply to this contract. Product liability disclaimers and/or warranty disclaimers from the seller are not applicable to this contract unless otherwise specified and mutually agreed upon elsewhere in this contract. In general, the contractor warrants that: (1) the product will do what the salesperson said it would do, (2) the product will live up to all specific claims that the manufacturer makes in their advertisements, (3) the product will be suitable for the ordinary purposes for which such product is used, (4) the product will be suitable for any special purposes that the State has relied on the contractor's skill or judgment to consider when it advised the State about the product, (5) the product has been properly designed and manufactured, and (6) the product is free of significant defects or unusual problems about which the State has not been warned. Remedies available to the State include the following: The contractor will repair or replace (at no charge to the State) the product whose nonconformance is discovered and made known to the contractor in writing. If the repaired and/or replaced product proves to be inadequate, or fails of its essential purpose, the contractor will refund the full amount of any payments that have been made. Nothing in this warranty will be construed to limit any rights or remedies the State of Utah may otherwise have under this contract.
16. **PUBLIC INFORMATION:** Contractor agrees that the contract will be a public document, and may be available for distribution. Contractor gives the State express permission to make copies of the contract and/or of the response to the solicitation in accordance with the State of Utah Government Records Access and Management Act. The permission to make copies as noted will take precedence over any statements of confidentiality, proprietary information, copyright information, or similar notation.
17. **DELIVERY:** Unless otherwise specified in this contract, all deliveries will be F.O.B. destination with all transportation and handling charges paid by the Contractor. Responsibility and liability for loss or damage will remain with Contractor until final inspection and acceptance when responsibility will pass to the State except as to latent defects, fraud and Contractor's warranty obligations.
18. **ORDERING AND INVOICING:** All orders will be shipped promptly in accordance with the delivery schedule. The Contractor will promptly submit invoices (within 30 days of shipment or delivery of services) to the State. The State contract number and/or the department purchase order number shall be listed on all invoices, freight tickets, and correspondence relating to the contract order. The prices paid by the State will be those prices listed in the contract. The State has the right to adjust or return any invoice reflecting incorrect pricing.
19. **PAYMENT:** Payments are normally made within 30 days following the date the order is delivered or the date a correct invoice is received, whichever is later. All payments to the Contractor will be remitted by mail unless paid by the State of Utah's Purchasing Card (major credit card).
20. **PATENTS, COPYRIGHTS, ETC.:** The Contractor will release, indemnify and hold the State, its officers, agents and employees harmless from liability of any kind or nature, including the Contractor's use of any copyrighted or un-copyrighted composition, secret process, patented or un-patented invention, article or appliance furnished or used in the performance of this contract.
21. **ASSIGNMENT/SUBCONTRACT:** Contractor will not assign, sell, transfer, subcontract or sublet rights, or delegate responsibilities under this contract, in whole or in part, without the prior written approval of the State.
22. **DEFAULT AND REMEDIES:** Any of the following events will constitute cause for the State to declare Contractor in default of the contract:  
1. Nonperformance of contractual requirements; 2. A material breach of any term or condition of this contract. The State will issue a written notice of default providing a ten (10) day period in which Contractor will have an opportunity to cure. Time allowed for cure will not diminish or eliminate Contractor's liability for damages. If the default remains, after Contractor has been provided the opportunity to cure, the State may do one or more of the following: 1. Exercise any remedy provided by law; 2. Terminate this contract and any related contracts or portions thereof; 3. Impose liquidated damages, if liquidated damages are listed in the contract; 4. Suspend Contractor from receiving future solicitations.
23. **FORCE MAJEURE:** Neither party to this contract will be held responsible for delay or default caused by fire, riot, acts of God and/or war which is beyond that party's reasonable control. The State may terminate this contract after determining such delay or default will reasonably prevent successful performance of the contract.
24. **PROCUREMENT ETHICS:** The Contractor understands that a person who is interested in any way in the sale of any supplies, services, construction, or insurance to the State of Utah is violating the law if the person gives or offers to give any compensation, gratuity, contribution, loan or reward, or any promise thereof to any person acting as a procurement officer on behalf of the State, or who in any official capacity participates in the procurement of such supplies, services, construction, or insurance, whether it is given for their own use or for the use or benefit of any other person or unit (63-56-1002, Utah Code Annotated, 1953, as amended).
25. **CONFLICT OF TERMS:** Contractor Terms and Conditions that apply must be in writing and attached to the contract. No other Terms and Conditions will apply to this contract including terms listed or referenced on a Contractor's website, terms listed in a Contractor quotation/sales order, etc. In the event of any conflict in the contract terms and conditions, the order of precedence shall be: 1. State Standard Terms and Conditions; 2. State Additional Terms and Conditions; 3. Contractor Terms and Conditions.

## **The Hubbard Method of Detoxification**

Drug abuse continues to be a huge problem across the planet, leaving no country or social stratum immune to its devastation. Besides drugs like heroin and opium that have existed for ages, new drugs are produced each year, chemically designed to produce strong, mind-altering effects. And these “designer” drugs can be even more potent than drugs like heroin, and their long-range effects remain unknown. While anyone understands the deadly effects drugs have on an individual, very little thought has been given to the effects the cleaning of illicit drug labs have on first responders.

In a very real sense, drugs and other man-made chemicals do not belong in the body. They dull the senses. They cause or contribute to a wide range of illnesses, from cancer and nerve damage to lowered immunity. It is the insidious nature of this problem which makes it most dangerous. Take for example, the person who was involved with street drugs at an earlier age, stopped taking them, but still experiences their negative influence – even years later. Or the man who has unwittingly accumulated traces of dozens of pesticides and other toxic chemicals such as those found in clandestine methamphetamine laboratories in his body, and now suffers from a wide range of illnesses and fatigue.

In the face of such serious problems what can be done to free a person from the devastating effects of exposure.

The answer came from the breakthrough discoveries of L. Ron Hubbard. In 1977, while researching the harmful effects drugs have on a spiritual advancement, he discovered that the drug LSD left residual deposits in the user’s fatty tissue. He found that these residual could continue to cause adverse reactions in these individuals months and even years after the original “trip” was over. He later extended his discoveries to other drugs and toxic compounds. He then developed and released a purification (detoxification) procedure that could safely reduce or eliminate the toxic chemicals accumulated in fatty tissue.

At the time, these were radical ideas. The idea that chemical residues stored for years in the fat was controversial. The idea that these residues could actually cause adverse effects was revolutionary. Nonetheless, the detoxification program created dramatic effects on those who participated in it.

Research in subsequent years has validated Mr. Hubbard’s theory, and had demonstrated the value of the program for a variety of toxic exposures. This work has shown beyond question that the Hubbard detoxification program, when followed exactly, is remarkably effective. In fact, thousands upon thousands across the planet have freed themselves from the biochemical devastation caused by drug and toxic substances.

As his intention was solely to clear the way for an individual’s mental and spiritual progress, L. Ron Hubbard claimed no medical results for his work. However, the Hubbard method of detoxification has extremely broad applications – as all truly basic discoveries do.

In the course of clinical practice, it has been possible to observe firsthand the results of the program. They have been nothing less than miraculous. These cases have included patients with minor effects of residual

toxins, people who were exposed to toxic chemicals on the job, causal drug users and long-term heavy drug users with bodies ravaged from the effects of those drugs.

The common theme expressed by people who have completed the program is that they are no longer encumbered by the chemicals which were shutting off their lives. They express increased mental clarity and new hope for the future. Upon completion of the program, their lives are happier, healthier and more productive.

Studies done over the decade provide repeated evidence of the program's effectiveness in eliminating toxins from the body. For example, consider the following:

- While monitoring the rehabilitation of cocaine and Valium addicts using the Hubbard detoxification program, a medical doctor and a molecular biologist found that previously undetectable drugs appeared in both the urine and the sweat of former drug users. In other words, these residual drugs were dislodged as a result of the program and eliminated.
- A young woman had spent six months on a job that required her to hose off the filters of an oil-burning generator. She had developed a variety of physical symptoms, accompanied by general hopelessness about life. She was enrolled in a supervised Hubbard detoxification program. On the fourth day of the program, a blackish greasy material began to ooze out of her pores. This continued for several days and eventually ceased. When she completed the program, her physical complaints were gone. An even greater relief she expressed was the return of the mental and physical energy and alertness that we associate with good health.
- The deadly chemical dioxin found in the military defoliant "Agent Orange" and used during the Vietnam War, poisoned thousands who were exposed to it, including American servicemen. Years later a cardiologist conducted tests on a person who had been exposed to this chemical but subsequently completed the detoxification program. He found that the patient's level of dioxin had reduced by 29 percent after the program and an astounding 97 percent eight months later. And all previous symptoms attributed to this poisoning had disappeared.

In addition, L. Ron Hubbard also noticed that the program had great workability in reducing the effects of exposure to harmful forms of radiation.

The Chernobyl disaster is considered one of the worst nuclear accidents ever to have occurred. Workers and residents were exposed to a wide range of radiation doses, along with great stress and anxiety. Many of these people are now suffering from a number of illnesses related to that event. While the specific relation of these illnesses to radiation is still the subject of scientific studies, an approach that would return these men, women and children to a state of good mental and physical health was needed.

Mr. Hubbard's program was applied to several Chernobyl-affected groups. In Kazakhstan, a group of men who worked on the repair and recovery from the Chernobyl disaster (known as liquidators) had been suffering from these illnesses for several years, and had not responded to standard medical treatments. The men underwent the Hubbard method of detoxification, and all reported marked improvement from

the debilitating conditions from which they had suffered. In another group who live in one of the most radioactively contaminated regions of the Russian Federation, similar results were reported – including clinical evidence that the men’s immune systems had been revitalized by the program.

Most recently, the Hubbard detoxification method was brought to Ground Zero Rescue Workers in New York. From the first cases, the results from detoxification were remarkable.

Rescue workers slept through the night for the first time since 9/11. They found they could breathe comfortably without inhalers or other medication.

Aside from the subjective sense that their bodies were being cleansed, the tangible evidence was dramatic.

Patients had black paste coming out of their pores in the sauna. Their sweat had stained towels purple, blue, orange, yellow and black. They have reported bowel movements that were blue, or green, or that have smelled like smoke —despite the fact that they had not been at a fire scene for months.

A recent evaluation of 286 cases treated at the project’s Manhattan facility, Downtown Medical, P.C., found that on average neurological, muscle and lung symptoms resolved fully in three out of four cases treated and greatly improved in virtually every case.

A substantial grant was awarded to the New York Rescue Workers Detoxification Project by the city of New York to detoxify sanitation workers.

A recent study, presented in Berlin at the 24th International Symposium on Halogenated Environmental Organic Pollutants and POPs (Persistent Organic Pollutants), measured blood levels of PCBs before and after treatment in a group of seven men present at the collapse of the WTC towers. Five were firefighters, one was a volunteer rescue worker and the other worked on Wall Street.

Before treatment, all seven had elevated levels of mono-ortho PCBs, similar in effects to the highly hazardous chemical dioxin. In fact, pre-treatment blood levels were consistent with those seen in workers occupationally exposed to PCBs. Post-treatment, toxicity levels decreased an average 65 percent.

The ongoing utilization of the Hubbard method, in many quarters, has been documented in scientific papers published by various groups ranging from the World Health Organization’s International Agency for Research on Cancer, and the Royal Swedish Academy of Sciences, to the United States Environmental Protection Agency.

L. Ron Hubbard’s detoxification program remains the only proven and safe method for reducing or eliminating chemicals residues from the body. It must be noted that the program is very exact and must be followed exactly to get the needed results and the wellbeing of the individuals who are undergoing the program.

### **Elements of the Detoxification Program**

For complete details, see L. Ron Hubbard's book, "Clear Body Clear Mind."

**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 continue at high levels for some time. (Sustained-release niacin is not used, as it has been associated with liver dysfunction.)

**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 because the body needs lipids. Polyunsaturated oils have been found to enhance excretion of extremely persistent chemicals, without depositing fat in the liver.

**Vitamin and mineral supplementation:**

The oil taken to prevent re-absorption of mobilized toxins may also reduce absorption of important nutrients. A resulting deficiency could increase the toxicity of mobilized chemicals such as PCBs. An increased intake of nutrients prevents such toxic effects, as well as balancing the intake of niacin.

**Duration and personnel:**

The program being delivered to Utah's Meth Cops takes place every day, seven days a week for an average of 33 days. It is being overseen by a highly trained medical doctor with a specialty in chemical exposure and environmental medicine, a Case Supervisor who reviews the progress of the officers daily and determines each individual's daily program, and two Officer In-Charge who interact with the officers constantly to ensure that any difficulty experienced by the patient is immediately addressed and handled and that each officers receives the maximum benefit from the detoxification protocol.

Research papers regarding the program are attached.

**Sauna Detoxification: A treatment program for veterans who have symptoms associated with chemical exposure.**

David E. Root, MD, MPH

Uniformed personnel deployed in support of military operations are routinely exposed to harmful substances as a result of uncontrolled industrial releases, sabotage, or from the intentional and unintentional actions of enemy or friendly forces. Despite extensive reports showing symptoms consistent with exposures, an agreed paradigm for addressing the resulting health issues does not exist.

U.S. troops exposed to the approximately 20 million gallons of Agent Orange, Agent Purple and 15 other herbicides sprayed in Vietnam between 1962 and 1971 manifested clusters of adverse health effects. After spending \$51.5 million on interviews and examinations, in 1987 CDC cancelled its research after concluding it could not accurately determine the exposure of veterans to Agent Orange<sup>1</sup>. Recently, detailed military spraying records were used to more accurately model exposure patterns<sup>2</sup>. After more than 30 years, data is sufficient to associate Agent Orange with certain conditions. However, a definite causal relationship has not yet been established and the subject of treatment has not been approached.

Hundreds of millions of dollars have been allocated for Gulf War research, yet only a handful of projects address the question of treatment<sup>3</sup>. Nonetheless, the question of whether or not veterans are receiving appropriate and effective treatments for their health problems remains a primary concern<sup>4</sup>.

The Center for Disease Control (CDC) urges increased awareness of symptoms associated with toxic chemical exposure for the purpose of swift diagnoses and appropriate treatment. This philosophy opens the door to another approach, one which acknowledges symptom patterns consequent to increased body burden including low level exposures. With this hurdle cleared, greater emphasis must be placed on evaluating effective treatment. In a world that faces the prospect of intentionally-caused exposures, physicians must have tools to be more than ineffectual bystanders.

The following four case studies evaluate the Hubbard method of detoxification, a regimen of sauna detoxification aimed at reversing the effects of chemical contamination. Two of the four individuals were deployed in the Vietnam or Persian Gulf military areas and experienced line-of-duty exposures; one was exposed at the WTC disaster site, and one is the spouse of the Persian Gulf-deployed marine. Each underwent remarkable improvement with persistent symptoms resolving on program completion. Daily written reports of progress details, medical examination and laboratory tests aided in monitoring their progress.

Numerous reports on the Hubbard method show a consistent picture of safety and effectiveness in reversing the health effects of contamination in a broad number of exposures<sup>5,6,7,8,9</sup>. As an example, a private sector model was rapidly implemented, to date helping almost 500 rescue and cleanup workers address exposures resulting from the World Trade Center attack and collapse<sup>10</sup>. This method is appropriate for uniformed personnel where contamination is commonly

suspected. Failure to provide timely treatment is a disservice to our military service members, resulting in unfairly poor quality of life, litigation and long term medical costs.

Uniformed service personnel are precious resources. Our freedom and safety depend on them. Treatment of these highly valuable service members utilizing the Hubbard method of detoxification provided them with remarkable recoveries, and saved taxpayers millions of dollars. The Hubbard method should be well noted by all who are charged with caring for our veterans.

#### Case 1

This is a 34 year old Caucasian male Captain with fourteen years in the US Army National Guard, trained as a UH-60 Black Hawk Pilot, a non-smoker with no history of drug or alcohol use. On September 11 he joined other military volunteers in the rescue and recovery efforts at the WTC disaster site. He remained in the lower Manhattan area until March 2002. His symptoms began immediately, and were intense. On September 16th, he was hospitalized because of difficulty breathing. Army Medical Center records also showed subsequent hospitalizations for asthma and pneumonia requiring intubation. The Captain continued to develop a variety of symptoms including cough, productive sputum, nasal congestion, shortness of breath, wheezing, disordered sleep, fatigue, skin rashes, severe stomach and chest pain, and chronic nausea, vomiting and diarrhea. His mental condition deteriorated and he experienced flashbacks of the WTC incident. By December 2003, the Army had revoked his flight orders. This serious personal setback also cost the Army the approximately \$3 million it had invested in his flight training.

At enrollment into the Hubbard method he was taking 10 medications daily including Albuterol, Advair and Nexium. Laboratory tests included CBC, comprehensive metabolic panel, thyroid panel, lipid panel, ECG, and urinalysis. Results were all within normal ranges. He was diagnosed with WTC exposure and elected to undergo detoxification treatment. During treatment and coincident with improved symptoms he gradually discontinued use of all medications.

Following his 21 day course of therapy in January 2004, the Captain began his application for restoring flight status. Through the Army Medical Center he completed a careful general internal medicine evaluation and a series of comprehensive specialty assessments. Army records indicated his irritable bowel syndrome, cough and breathing completely resolved and stated "he is now able to run 5 miles in 50 minutes." Other symptoms have improved including sleep apnea and congestion, although he still experienced pollen allergies. Within months of treatment completion he had passed all physical tests necessary and was deployed to Iraq in a non-flight capacity. Eighteen months following treatment, he passed all medical and mental tests and received his final flight clearance. Soon to be promoted to Major, he is currently directing all National Guard rescue efforts in New Orleans following the destruction of hurricane Katrina. He states "To my knowledge, a recovery of this nature has never happened before."

#### Case 2

This is a 49 year old Caucasian male, Lieutenant Colonel in the US Marine Corps (retired), non-smoker with no history of drug use and discontinued alcohol use 20 years ago. His excellent health history included regular exercise and attention to diet. He served as Executive Officer for the 4<sup>th</sup> Marine Infantry Regiment in combat operations against Iraqi forces in Kuwait during Operation Desert Storm where he was deployed until August 1991. He experienced moderate

chemical exposures including two weeks in the vicinity of the burning Al Wafrah and Um Gadir Kuwaiti oil fields. He wore clothing impregnated with DEET and Permethrin. His unit also responded to battlefield chemical alerts and he had received anthrax and botulism vaccines along with pyridostigmine bromide tablets as preventive medicine for chemical/biological warfare. His medical records indicate initial symptoms during his deployment to Kuwait that included episodes of severe lower back pain with a negative MRI and no injury. Gradually he developed roving joint pain, fatigue, headaches, skin rashes and a regular eyelid infection that did not resolve with antibiotics. In 1992 he sought help from the Veterans Administration and was diagnosed with "Persian Gulf Syndrome." He was prescribed Tylenol to manage joint pain. No other treatment was available.

These symptoms did not resolve with time and he enrolled in the Hubbard method after hearing a testimony during the Presidential Advisory Committee on Gulf War illnesses. Presenting symptoms at the time of treatment (5 years after the exposure) included a persistent eyelid infection, skin rash, fatigue, impaired short term memory, irritability, headaches, sleep disturbances, joint pain, muscle aches and pains, gastrointestinal disturbances and recurrent colds. Laboratory tests included CBC, comprehensive metabolic panel, lipid panel, EKG, urinalysis and were all normal.

During his 16 day treatment with the Hubbard method in June 1996, he noticed a number of manifestations. His upper eyelid sty and a rash on his foot initially worsened and then permanently cleared by day six. During his third day of therapy he noticed a yellow-tan stain on his towel deposited from his sweat. This stain reappeared several times through day nine. On day 15 a black substance came out in sweat from his feet. A persistent shoulder pain began to clear on day eight and was fully resolved by completion. His energy returned back to normal as did memory and concentration. On his last day, at 1500 mg niacin, he ran 5 miles and swam 30 laps prior to treatment and stated he was "feeling great!"

### Case 3

A 43 year old, nonsmoking female and wife of the Lieutenant Colonel described as Case 2, was exposed to Desert Storm chemicals when her spouse returned from deployment in Kuwait, August 1991. Her excellent health history changed with an atypical PAP smear in 1992 that recurred several times but follow-up biopsies were negative. She also developed additional symptoms including irregular menstrual cycles, chest rash, chills and fever that were categorized as "PMS." She often had swollen glands, gum infections, and a metallic taste in her mouth. She developed migraines along with food sensitivities. Prior to her husband's return from deployment her exercise habits included resistance training and daily 6 mile jogs. At her enrollment physical exam in September 1996, she stated that she was no longer able to do this due to fatigue and joint discomfort. Additionally, their 16 year old son became very ill when her husband returned. Her laboratory tests included CBC, comprehensive metabolic panel, lipid panel, EKG, urinalysis and were all normal.

During her 28 day program she noted yellow tan stains on her towels and at times black spots. She also experienced night sweats, had recurring skin acne that finally cleared and once re-experienced a methamphetamine manifestation from a dose she had taken in her teens. By treatment completion she had fully regained her energy levels and had returned to regular exercise. Following treatment, her PAP tests and menstrual cycles also returned to normal. She stated her "body feels peaceful."

#### Case 4

A 56 year old Caucasian male who'd been deployed as a paratrooper in the Army's legendary 101<sup>st</sup> Airborne and one of only seven men who fought at Hamburger Hill who managed to complete their tour of duty and return home alive. A non-smoker with no history of drug or alcohol use. Thirty six years ago during his tour of duty in Viet Nam he was directly sprayed with Agent Orange. On completion of military service, he went to the Veteran's Administration seeking help for symptoms that included chloracne and was offered disability.

Employed for the past 20 years by the New York Sanitation Department, he worked 11-12 hour shifts seven days a week removing WTC debris. Shortly after 9-11, he was diagnosed with bronchitis and given a course of antibiotics that did not reduce the symptoms. At enrollment on the Hubbard method in June 2005, he was taking Combivent, Prednisone and Pulmacort and states they also were ineffective. His chief complaints included a persistent cough and wheezing, hearing loss, inability to concentrate and short term memory loss, gastrointestinal disturbances, fatigue and depression. He reported that he had mental and physical impairment that affected his work and personal life at least 20 of the prior 30 days. He stated his symptoms began after his work at the WTC site and were common among other sanitation workers.

Laboratory tests prior to treatment included CBC, comprehensive metabolic panel, thyroid panel, lipid panel, ECG, and urinalysis. Results were all within normal ranges. He was diagnosed with chemical exposure and fatigue and elected to undergo detoxification therapy.

During his 31 day program he worked up to 5000 mg of niacin. During the therapy his skin broke out. "I saw a chemical coming out of me," he reported. "It smelled like chlorox. It wasn't a faint smell. It was clear and apparent to anyone near me."

By treatment completion his symptoms had completely resolved. "I can finally sleep," he says. "I can go a couple of weeks without coughing once. That's not a small improvement. That's an unbelievable improvement." "I feel younger than when I first came to the program... This is the first thing that's helped me, they did more than just sit there and argue about what the problem might be. These people did something to make things better."

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<sup>1</sup> U.S. General Accounting Office *Agent Orange Studies: Poor contracting practices at Centers for Disease Control increased costs*. September 1990.

<sup>2</sup> Stellman JM et al., *The extent and patterns of usage of Agent Orange and other herbicides in Vietnam*. Nature 2003 Apr;422:681-687

<sup>3</sup> Department of Veterans Affairs. *Annual report to Congress: Federally sponsored research on Gulf War veterans' illnesses for 2001*. Department of Defense projects, Appendix, Mar 2002.

<sup>4</sup> Institute of Medicine *Gulf War Veterans*. Nat'l Academies Press 2001

<sup>5</sup> Schnare, DW, Denk, G, Shields M, and Brunton S. *Evaluation of a detoxification regimen for fat stored xenobiotics*. Med Hypotheses. 1982 Sep;9(3):265-82.

<sup>6</sup> Schnare DW, Ben M and Shields MG. *Body Burden Reduction of PCBs, PBBs and Chlorinated Pesticides in Human Subjects*. Ambio. 1984; 13(5-6):378-380.

<sup>7</sup> Schnare DW, and Robinson PC. *Reduction of the human body burdens of hexachlorobenzene and polychlorinated biphenyls*. IARC Sci Publ. 1986; (77):597-603

<sup>8</sup> Root DE and Lionelli GT. *Excretion of a lipophilic toxicant through the sebaceous glands: A case report*. J Toxicol Cutaneous Ocul Toxicol. 1987; 6(1):13-8.

<sup>9</sup> Kilburn KH, Warsaw RH, and Shields MG. *Neurobehavioral dysfunction in firemen exposed to polychlorinated biphenyls (PCBs): possible improvement after detoxification*. Arch Environ Health. 1989 Nov-1989 Dec 31; 44(6):345-50.

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<sup>10</sup> Dahlgren, J et al., *Persistent Organic Pollutants in 9/11 World Trade Center Rescue Workers: Reduction following detoxification*. Presented at Dioxin2004 Berlin, Germany.

**Sauna detoxification of metals, pesticides and chemicals: Addressing the background exposures and increasing health problems of an industrial society.**

Dr. Conrad G. Maulfair

Chemical contamination is not always recognized as a causative or contributory factor for illness, even when following an isolated event involving known substances. In non-occupationally-exposed individuals it often remains undiagnosed and related symptoms are assigned to other causes. We are being contaminated daily by unregulated chemicals of unknown toxicity. It is undeniable, however, that daily contamination by a range of chemicals whose toxicity and long-term health effects are not fully understood is a fact of modern life. Recent biomonitoring surveys show that most people carry mixtures of highly toxic chemicals. There is a dearth of knowledge on the relationships between body burden levels and health risks in any population.

The following three cases are similar in that none had a known exposure incident. We surmise an etiology of gradual exposure and increased body burden that occurred over time and resulted in disease. Each case underwent the Hubbard method of detoxification with chief complaints resolving on program completion. Routine metals testing showed toxic levels of various heavy metals and there is evidence of elimination during treatment that deserves future study. One case also underwent biopsy that revealed additional data about fat stored toxins, also reduced by this therapy. Daily written report of progress details, medical examination and laboratory tests aid in monitoring progress.

A disturbing pattern of human health damage has emerged that appears to be linked to synthetic chemical substances. The Hubbard method of detoxification appears to fit well in emerging prevention paradigms: As a means to undo the health effects of contamination while scientists and regulators address long-term environmental solutions.

Case 1:

LW was a 45 year old, 127 pound, non-smoking female who had been diagnosed with breast cancer and underwent mastectomy without chemotherapy or radiation one year prior to enrollment in the Hubbard method of detoxification. Her lifestyle included regular exercise and a primarily vegetarian diet with nutrient supplementation. She had a good health history except for mild familial glaucoma, persistent bleeding gums, and migraine headaches that developed during college.

Laboratory tests conducted prior to mastectomy included hair trace mineral analysis, red blood cell trace mineral analysis, CBC, comprehensive metabolic panel, 24-hour urine hormone collection, urinalysis, ferritin, iron, copper. Test results were within normal ranges except for her mineral evaluation which revealed fairly significant toxic metals and urine hormone which indicated low normal estrogen. She was diagnosed with heavy metal overload and elected to undergo sauna detoxification.

Fat biopsy before detoxification also revealed high levels of various pesticides, including DDE above linear range of this test. These are correlated in the medical literature with development of

breast cancer. Pesticide levels were reduced approximately 60 percent during detoxification, some to below the limit of detection.

During her 18 day program reaching 3000 mg niacin on a gradient, a persistent rash that existed prior to treatment resolved as did the tendency of her gums to bleed. At completion she states "...most incredibly I have such a sense of well being. After being diagnosed with cancer I felt anxious about my future. I was sure there was an environmental factor at play and was uncertain how to handle this issue. The purification program was my answer. I truly believe I have been given back my life." She had noticed her bleeding gums stopped during the program and have not reoccurred to date enabling her to avoid a bone graph. She enjoys good dental health with no redness or swelling or bleeding of gum tissues.

#### Case 2:

PS was a 40 year old, 165 pound, female, non-smoker, Speech and Language Pathologist for New York Public Schools and various private schools. Her chief complaints included high sensitivity to food, chemicals and agricultural products, along with various nervous system, endocrine, circulatory, allergic, musculoskeletal and skin symptoms. She was diagnosed with fibroids, endometriosis and GERD in 1999. She was sleeping only five hours per night.

She tried a total of 15 prescription medications and 5 over the counter medications to address her symptoms over the four years prior to enrolling in the Hubbard method. Laboratory tests conducted prior to enrollment included hair trace mineral analysis, red blood cell trace mineral analysis, comprehensive stool analysis, CBC, comprehensive metabolic panel, 24-hour urine hormone collection, urinalysis, ferritin, iron, copper. These tests revealed significant intestinal dysbiosis and malabsorption, anemia, significant toxic metal overload, and low estrogen levels.

She completed the program in 78 days after gradiently reaching 5000mg of niacin. During the program there were a number of notable events. After 7 days of therapy, she experienced stinging and burning of her scalp accompanied by the smell of ammonia in her sweat and on the towels. She attributes this to hair relaxer she used throughout her life. Her scalp did not begin to sweat until after day 27 on the program. She also developed a pattern of skin rashes and burns consistent with the chemical in the hair product, calcium hydroxide. These were healing by program completion and later cleared. Fecal metal analysis during the program showed elimination of many metals including antimony, arsenic, beryllium, tungsten and uranium.

At completion she states "The first thing I noticed was the improvement in my blood circulation, my fingers and toes used to be white, almost blue, and painful especially in cold weather. This improved early in the program and remains fine. I have also noticed a decrease in joint pain. My past scalp irritations due to chemical relaxers caused sensitivity and burning, the burns that appeared during the program are now healing well. My visual perception increased and I am more aware of my surroundings, my friends have noticed I have lost weight. I am more energetic and feel happy."

#### Case 3:

KB was a 38 year old, 140 pound female, non-smoker, Minister's wife and musician. Her chief complaints include swelling in her neck that impairs her voice and ability to swallow, she had been experiencing serious mood swings and disturbed thought patterns which caused her so much stress she had, about a year prior to detoxification therapy, checked herself into a psychiatric hospital to avoid acting on her destructive and violent thoughts. She believes this is

explained by mercury poisoning from dental amalgams including additional contamination during their removal done without a protective rubber dam.

Additionally, she experiences fatigue, dizziness, and some gastrointestinal problems. She was prescribed various psychiatric medications which she discontinued after a short time of taking each of them. Laboratory tests conducted prior to enrollment included hair trace mineral analysis, CBC, comprehensive metabolic panel, 24-hour urine hormone collection, urinalysis, ferritin, iron, copper. Test results were within normal ranges except for significant heavy metal overload.

She completed the Hubbard program in 55 days at 5000 mg niacin. Fecal metal analysis during the program showed elimination of many metals especially mercury as well as arsenic, copper and uranium. During the program, marks she attributed to the mercury contamination during amalgam removal appeared around her mouth. She experienced a number of emotional incidents that finally lessened and then ceased. At different times a number of materials appeared in her sweat or on her body including a pink perfume she used as a girl, ink scribbles she made on her hand as a girl, and a blue color, during one day she smelled like mosquito repellent for a few hours.

She reports that "I now have more energy, in fact a lot of energy. I feel more connected and emotionally alive. Friends say I look healthier; my eyes are expressive and clear. This is truly an amazing program in that you accomplish sooo much in such a short period of time. Thank you."

Dynamics of the main systems of the body in the course and after the detoxification program  
(pooled analysis of three detoxification trials in Russia)

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After the Chernobyl accident, several methods aimed at improvement of the health status of persons permanently living in radioactively contaminated territories, and for removing radionuclide from the human body, were tested and evaluated. Of these, the most promising appeared to be a complex detoxification protocol developed by L. R. Hubbard. During the project, careful medical examinations of the patients were carried out before, in the course and after the treatment.

Detoxification markedly improved the general physical and psychological conditions of the participants. There was an absence of negative health effects. A wide range of physical and psychological responses were monitored. In all, around 370 parameters per patient were quantitatively evaluated. Results of the study showed, that positive changes occurred not only in the objective characteristics of physiological adaptation, but also in the subjective self-estimation of the individuals. No decompensated disorders of major regulatory and life maintaining systems were revealed.

In the framework of the present study, the comparison of the health parameters of the former participants of the program, carried out in 1991, 1995, and 1996, with the same parameters of control group members (matched in age, gender, and location of residence) has been made. The physical and mental conditions of the former patients indicated the safety of this program. No post-treatment parameters were worse than the individuals in the control groups, and some parameters are better. This clearly demonstrates that the program has no deleterious long-term effects.

In accordance with the results of this study, the detoxification program developed by L. Ron Hubbard may be recommended for application in clinical practice for the general rehabilitation of the body and the withdrawal of toxins.

Several the most informative methods of medical examination used in the study may be offered for follow-up monitoring during the detoxification program and for objective estimation of its effectiveness.

## **Treatment of WTC Exposures: Results from Detoxification**

Jonnie Rachinow, MD

The Hubbard method of detoxification has been used to treat exposure symptoms in about 500 professional and volunteer rescue workers who were exposed to large quantities of toxins in the dust, smoke and fumes resulting from the September 11, 2001 terrorist attacks on the World Trade Center (WTC).

Firefighters, paramedics, police, clean-up crews and other personnel labored for weeks and months in the immediate vicinity of the WTC. Personal Protective Equipment (PPE) was not always available or was ineffective in preventing the rescue workers from absorbing contaminants by inhalation, ingestion or dermal exposure.

There is no doubt that the tens of thousands of men and women who participated in the rescue and recovery operations were exposed to a wide range of toxins, many of which are known to accumulate in body tissues. Exposure symptoms have not abated with time, instead a substantial number of those exposed are experiencing worsening health status involving multiple organ systems.

Recognizing that they had had an unprecedented exposure, the firefighters and union officials considered timely treatment a priority. They contacted the Foundation for Advancements in Science and Education concerning assistance in making detoxification available to exposed personnel. Previous case reports<sup>1,2</sup> and a number of non-randomized, controlled studies of exposed workers including firefighters<sup>3</sup> have been published over the past two decades. The regimen has been shown to be safe, can reduce tissue levels of lipophilic xenobiotics such as PCBs, and can improve memory, cognitive functions, immune parameters and general physical condition in different study populations<sup>4,5</sup>.

An independent facility funded by private donations was set up in September 2002 in lower Manhattan providing this therapy to date to 484 rescue workers and other exposed persons without charge. To evaluate the efficacy of this rehabilitative therapy, participants complete comprehensive health and symptom surveys before and after detoxification. Program participants: 273 firefighters, 52 sanitation workers, 19 paramedics, 23 police officers, and 117 others; indicate a range of benefits that sum up to improved quality of life and job fitness.

- Prior to enrollment individuals averaged 4.4 days of limited activity and 2.1 days missed work per month.
- After detoxification, these individuals report 0.2 days of missed work or limited activities – this includes the month while they underwent therapy.

## Perception of Health



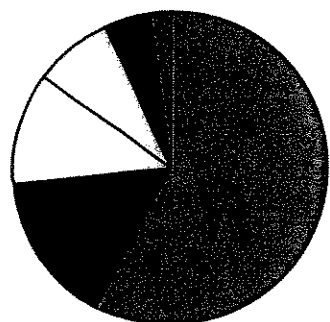
Persistent symptoms such as fatigue irritability, cough, skin disorders, and gastroesophageal reflux have consistently improved on treatment completion.

### Improvement in Symptoms

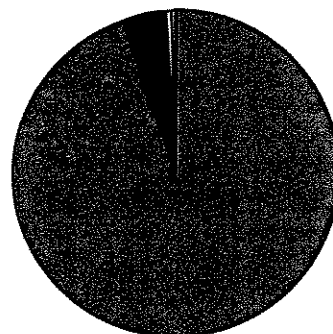
		Fully resolved at discharge	Greatly improved if not fully resolved
<b>Mental Health</b>			
	Impaired Short/Long-term Memory	72.8/69.7%	22/19%
	Poor Concentration	92.1%	7%
	Fatigue	85.5%	14.5%
	Irritability	83.7%	14.2%
	Depression	84.2%	14%
	Impaired Sleep	99.8%	–
	Headaches	76.8%	22.8%
<b>Lung and Airway</b>			
	Shortness of Breath with Exercise	45.2%	35%
	Other Breathing Difficulties	63.0%	76%
	Cough	66.7%	32%
<b>Skin</b>			
	Acne	48.9%	48.8%
	Rash or Dryness	68.0%	29.2%
<b>Musculoskeletal</b>			
	Joint Pain	68.4%	16.2%
	Muscle Weakness	82.9%	12.3%
	Muscle Pain	79.1%	18.1%
<b>Other</b>			
	Impotence	50.0%	45%
	Vision/Hearing/Smell Changes	90.2%	8%
	Gastrointestinal Problems	77.3%	20.1%

As these symptoms abate, clients are able to reduce and ultimately eliminate the medications they are taking.

**Number of Medications at Start of Therapy**



**Number of Medications at Completion**



0  
1  
2  
3  
4  
5+

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<sup>1</sup> Root DE, Lionelli GT. Excretion of a lipophilic toxicant through the sebaceous glands: A case report. *J Toxicol Cutaneous Ocul Toxicol* 1987; 6(1):13-8.

Notes: The oily black substance exuded was later analyzed by the authors and determined to be a 12-carbon chain terpene.

<sup>2</sup> Tretjak Z, Shields M, Beckmann SL. PCB reduction and clinical improvement by detoxification: an unexploited approach? *Hum Exp Toxicol* 1990; 9(4):235-44.

<sup>3</sup> Kilburn KH, Warsaw RH, Shields MG. Neurobehavioral dysfunction in firemen exposed to polychlorinated biphenyls (PCBs): possible improvement after detoxification. *Arch Environ Health* 1989; 44(6):345-50.

<sup>4</sup> Schnare DW, Ben M, Shields MG. Body Burden Reduction of PCBs, PBBs and Chlorinated Pesticides in Human Subjects. *Ambio* 1984; 13(5-6):378-80.

<sup>5</sup> Schnare DW, Robinson PC. Reduction of the human body burdens of hexachlorobenzene and polychlorinated biphenyls. *IARC Sci Publ* 1986; (77):597-603.

## Are we ignoring effective substance abuse treatment solutions? Vitamin therapy as an essential treatment component.

Kathleen Kerr MD<sup>1</sup>, Marie Cecchini MS<sup>2</sup>

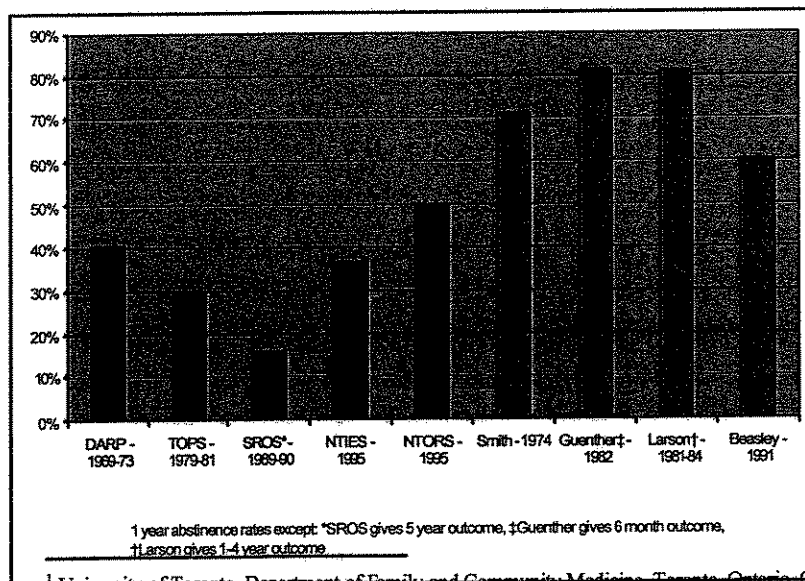
### Summary

An extensive search covering over 50 years of published literature provides consistent evidence that vitamin, mineral and amino acid therapy in drug withdrawal and rehabilitation can reduce withdrawal symptoms, increase treatment retention, improve psychological status, contribute to higher abstinence rates and improve quality of life. The typical program that includes a nutrient component has a social-educational focus and some are entirely drug free.

Published outcome studies of programs that include nutrient therapy report 55-81% long term sobriety rates. Safety studies indicate that adverse effects from short-term use of high-dose vitamin and/or amino acid therapy are rare, and occur at doses far higher than those seen in practical use.

Malnutrition among alcoholics is well documented and high doses of specific vitamins (above RDA values) are a standard accompaniment to alcohol withdrawal and treatment regimens. Malnutrition among abusers of illicit drugs is also well characterized however inclusion of nutrient therapy in these withdrawal and treatment settings is not as broad. This is most likely due to the emphasis of research funding on validating pharmaceutical paradigms. Nutrient therapy should receive much more research attention given the safety, cost-effectiveness and higher outcomes in those studies that have been published.

Long-term abstinence rates in large national outcome studies (red) vs. programs with high dose vitamin component (blue).



Reconsidering recovery goals

True recovery from addiction could be stated as abstinence without cravings and engagement in productive activities. Factors that improve retention, treatment completion, and increase time in treatment lead to better success.<sup>14</sup> These include factors that decrease withdrawal symptoms and cravings.<sup>18</sup> Where there are unmet nutrient requirements, whether determined by individual differences or from an unhealthy lifestyle, the body

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will crave that which it lacks or a similar substitute.

High doses of nutrients are needed to reverse depletion and provide therapeutic value

Each decade since 1970 has included a major national outcome study of substance abuse treatment in the U.S. In 1995 a large study was also published in England. Treatment results for programs that include a nutrient component are consistently higher than the national averages. In light of this large body of knowledge, it is shortsighted to rely solely on the use of additional or substitute drugs to abate withdrawal symptoms or manage cravings, a practice that can exacerbate the symptoms of underlying physical changes and create other dependencies.

Successful programs tend to use above-RDA intake, an approach that makes sense since Recommended Dietary Allowances are set to maintain good health. In diseased situations such as addiction, requirements are much higher to accomplish several treatment goals:

- a) address deficiencies from poor diet, impaired absorption, increased excretion, caused by drug use;
- b) repair altered neurotransmitter function caused by drug use;
- c) supply increased requirements needed to metabolize and eliminate drugs as a chronic toxic exposure;
- d) address unmet individually determined requirements

Nutrients commonly used in current treatment programs include niacin/niacinamide; B Complex vitamins especially B1, B5 and B6; antioxidants such as vitamin C and vitamin E; calcium and magnesium.<sup>20 9 13 10 19 2 8</sup> Each of these facilitate a large number of metabolic processes and their deficiencies can be associated with mental disturbances. Some programs support nervous system restoration by including amino acids as neurotransmitter precursors<sup>4 6</sup> and essential fatty acids<sup>12;17</sup>. Over half a century of research forms an important understanding of the rationale for nutrient inclusion in substance abuse treatment.

Safety studies indicate that adverse effects from short-term use of high dose vitamin, mineral and/or amino acid combinations, such as are used during withdrawal or rehabilitation, are negligible. With the exception of synthetic vitamin A, it is most likely that adverse events associated with high doses of a single vitamin are actually caused by resulting nutrient imbalances.

## Discussion

It is estimated that 21.6 million Americans suffered from substance dependence or abuse of drugs, alcohol or both yet only 1 in 5 persons actually obtaining help.<sup>24</sup> It is clear that simple and cost-effective solutions must be made available.

According to large scale studies, the average treatment programs obtains only a 25 percent abstinence rate over a year following treatment completion, the typical person entering treatment is entering for the third time, uses multiple substances, and has other health and social problems.<sup>23</sup> [Suggest taking out the last sentence, since you could argue that any change at all is a step forward. Probably stronger to just leave the stark reality.]

High treatment failure rates have caused some experts to conclude that addiction is an incurable disease. However, it is also possible that low success rates reflect the fact current approaches to rehabilitation are either seriously flawed or incomplete.

The number of addicted persons in the United States declined significantly between 1979 and 1992, from 23 million to 12 million. In the early 1990's, Congress established committees to encourage development of new medications for drug addiction. These launched industry incentives including tax breaks, extended patents on profit center medications, and strong promotional campaigns to encourage private sector activity in developing anti-addiction medications.<sup>7</sup>

Since this time, the number of current users has gradually increased and enormous sums of money are being invested in solving this problem.<sup>16</sup>

At the same time, massive drug promotion has added to the problem of addiction. An estimated 9 million people aged 12 and older used prescription drugs for nonmedical reasons in 1999<sup>11</sup>. An estimated 2.6 percent of the population aged 12 or older misuse prescription drugs, now the second most popular category of drug use after marijuana.

Ritalin, also known as methylphenidate, is on the Drug Enforcement Administration's (DEA's) Top 10 list of most often stolen prescription drugs. Methylphenidates use the same brain pathway as cocaine<sup>26</sup> and are listed as a schedule II drug meaning that they carry a high potential for abuse but have recognized medical use<sup>25</sup>.

A study at the University of California at Berkeley, which tracked 492 children for more than 25 years, found that use of Ritalin and other stimulants in the treatment of attention deficit hyperactivity disorder (ADHD) increases the likelihood of taking up smoking, cocaine, and other stimulants later in life.<sup>1</sup>

#### Conclusion

The high cost of treatment, poor quality of life, and multitude of costly social problems associated with substance abuse can be addressed. There is sufficient evidence to include well-balanced regimens of numerous vitamins, minerals and amino acids as a standard component of treatment.

These approaches deserve greater attention from addiction researchers and rehabilitation specialists, particularly in view of the low success rates and serious social consequences associated with pharmaceutical responses to addiction.

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