Methodology: Use of Orthomolecular Techniques for Alcohol and Drug Abuse, in a Post-Detox Setting

Alfred F. Libby, Ph.D.[1], Oscar Rasmussen, Ph.D.[2], Wesley Smart, B.A.[4], Charles Starling, M.D.[4], Patricia Haas, B.A.[1], Cortland McLeod[3], John J. Wauchope, B.A., B.S.[1], Hortensia Gutierrez[1]

Albert Szent-Gyorgyi, M.D., Ph.D., the Nobel Laureate who discovered vitamin C said: "Discovery consists in seeing what everyone else has seen, but thinking what nobody has thought."

Historical Background

Information is extremely sparse regarding orthomolecular techniques for treating alcoholism and drug addiction. The reason appears to be a general lack of interest rather than lack of ability. This indifferent attitude is not surprising since this lack of interest has pervaded all branches of medicine and science. Following the Civil War, when it was recognized there was a significant alcohol and drug problem, there have been only two major government supported programs for the treatment of drug addiction. It took 47 years to decide on a strategy to deal with the increasing drug problems in the United States. A decision was made to establish legal narcotic dispensing clinics as a deterrent to the ever-increasing problem and so during 1912 clinics were opened in Florida and Tennessee. There were some 44 of these clinics opened across the United States supplying legal heroin to addicts by 1920. The theory behind this thinking was that if the addict received his/her unadulterated medicinal opiate legally, at low cost or without charge, the black market opiate pushers could hardly support themselves by selling opiates solely to non-addicts and the market would dry up. That logic is as wrong today as it was wrong in 1912. A kid trying out his first experience with drugs does not buy it from a stranger — he obtains the drug from a so-called "friend".

In 1920, the Narcotic Unit of the Treasury Department, predecessor of the Federal Bureau of Narcotics, launched a successful campaign to close these dispensing clinics as non-beneficial and unsuccessful.

The Harrison Narcotic Act

Now comes a second blunder in the thinking of those empowered to deal with this problem, and the one that set the stage,

1. The Libby Institute, 1402 N. El Camino Real, San Clemente, Cal. 92672
2. M2Ethicals, P.O. Box 174, West Chicago, IL 60185
3. Dietronics, Richardson, Texas 75080
4. Orthomolecular, Inc., 500 So. Lake, Pasadena, CA 91101

the thinking, and the mis-direction the United States government has taken concerning drug addiction since 1914, an incredible 68 years! The Harrison Narcotic Act was an outgrowth of the Hague Convention of 1912, aimed primarily at solving the opium problems of the Far East, especially China. The Act did not appear to be a prohibition law; on its face it appeared to be merely a law for the orderly marketing of opium, morphine, heroin and other drugs, in small quantities over the counter, and in larger quantities on a physician's prescription. There was a section in this Act that protected the rights of a physician to prescribe for his patients any of the aforesaid drugs. The provision protecting physicians contained a "gotcha" clause, however, that was unrecognized at the time of the legislation. In this Section of the Act it stated that a physician could prescribe drugs for his patients "in the course of his professional practice only." This single phrase was then interpreted by law enforcement officers to mean that a physician could not prescribe opiates to an addict to maintain his addiction. Since addiction was not a disease, the argument went, an addict was not a patient and opiates dispensed to or prescribed for him/her by a physician were therefore not being supplied "in the course of his professional practice only." Thus, a law that was apparently intended to insure the orderly marketing of narcotics was converted into a law prohibiting the supplying of narcotics to addicts. It developed that many physicians were arrested under this interpretation by law enforcement officers, and some physicians were convicted and imprisoned. Even those physicians who escaped conviction had their careers ruined by the publicity. It appears that because of this harsh treatment of the medical profession by law enforcement, the drug addiction population would be the ultimate losers, because since 1914 the medical profession has maintained a strict "hands off policy.

The physician of 1914 recognized the problem created by the interpretation of the Harrison Narcotic Act and foretold the future role of the physician as well as the drug addict when an editorial appeared in **American Medicine** just six months after the enactment with the following statement:

"Narcotic drug addiction is one of the gravest and most important questions confronting the medical profession today. Honest medical men have found such handicaps and dangers to themselves and their reputations in these laws that they have as little to do as possible with drug addicts or their needs. The addict is denied the medical care he urgently needs; open, above-board sources from which he formerly obtained his drug supply are closed to him, and he is driven to the underworld where he can get his drug. Abuses in the sale of narcotics are increasing. A particularly sinister sequence is the character of the places to which addicts are forced to go to get their drugs and the type of people with whom they are obliged to mix. The most depraved criminals are often the dispensers of these habit-forming drugs. The moral dangers, as well as the effect on the self respect of the addict, call for no comment. One has only to think of the stress under which the addict lives, and to recall his lack of funds, to realize the extent to which these afflicted individuals are under the control of the worst elements of society. One can clearly see the withdrawal of the medical profession from investigating more effective methods of treating a drug addict for fear of prosecution and imprisonment." Who could rightfully fault the medical profession for its attitude under the circumstances?

Now left free to operate, the "dope peddlers" established a national organization and the underground traffic in narcotic drugs began to flourish. The problems of drug addiction so increased that the then Secretary of the Treasury in 1918 appointed a committee to investigate the problem. The 1918 committee, like countless committees since, called for sterner law enforcement as a solution to the problem. The medical situation and predicament of the drug addict was still not understood, but the "dope peddlers" understood, and now heroin prices could be doubled and tripled to increase their profits because nothing was being done for the addict, except prosecution.

Stiffer Jail Sentences as a Deterrent

Many of the United States federal and state laws, as well as Canadian laws, were

passed to stiffen the penalties for narcotic offenses. The maximum penalty specified in the three 1909 federal laws was two years imprisonment. The 1914 Harrison Act increased this maximum to five years. In 1922 a maximum federal penalty of ten years imprisonment was enacted. In this same year, Canada added whippings and deportation to its penalties! Subsequently, state laws were stiffened to provide twenty-year, forty-year, and even ninety-nine-year maximum sentences. Life imprisonment and the death sentence were added to both federal and some state laws during the 1950's. By 1970, Congress had passed some 55 federal laws to supplement the 1914 Harrison Act. This number, however, is incomplete in one very significant respect. It excludes the Volstead Act (Alcohol Prohibition) of 1919, and the many subsequent laws designed to stamp out the drinking of alcohol between 1920 and 1933, when alcohol was also considered an illicit drug.

Armed with these stiffer penalties as deterrents enacted by Congress, it is easy to see how the judiciary and the entire police system began to, and still do today, look upon the drug addict as an arch criminal and enemy of society. Indeed, there has been one blunder after another committed in dealing with this patient population, and it continues to this very day. Some of the more enlightened individuals who were in a position to judge these oppressive techniques began to speak out. One such individual was August Vollmer, an outstanding police chief and authority on police administration. After watching the results and effects of the Harrison Act, Chief Vollmer wrote in 1936, twenty-two years after passage of this law, the following statement: "Stringent laws, spectacular police drives, vigorous prosecution, and imprisonment of addicts and peddlers have proved not only useless and enormously expensive as means of correcting this evil, but they are also unjustifiably and unbelievably cruel in their application to the unfortunate drug victims." Vollmer went on to state that "drug addiction, like prostitution, and like liquor, is not a police problem; it never has been and never can be solved by policemen**.** It is first and last a medical problem, and if there is a solution, it will be discovered not by policemen, but by scientific and competently trained medical experts, whose sole objective will be the reduction and possible eradication of this devastating appetite."

Robert S. de Ropp, Ph.D., Biochemist, made this comment in 1957, "just why the alcoholic is tolerated as a sick man, while the opiate addict is persecuted as a criminal, is hard to understand. There is, in the present attitude of society in the United States toward opiate addicts, much the same hysteria, superstition, and plain cruelty as has characterized the attitude of our forefathers toward witches. Prison sentences up to 40 years are now being imposed and the death sentence has been introduced. Perhaps one should feel thankful that the legislators have not yet reached the point of burning addicts alive. If one insists on relying on terrorism to cope with a problem which is essentially medical, one may as well be logical and "go the whole hog."

Enter the "Enlightened" Age (1950's)

For the first time since the closure of the legal opiate clinics, a treatment program was outlined for the opiate addict. This technique was developed at the Federal Hospital in Lexington, Kentucky, using a synthetic narcotic developed by the Germans near the end of World War II named Methadone Hydrochloride. The first step in this technique is to transfer the patient from morphine or heroin, in relatively equal dosage amounts, to Methadone Hydrochloride. In order to detoxify the patient, the daily Methadone dose is progressively reduced over a period of ten days or so, until a zero dose is reached, then the patient is considered "detoxed."

It was during this period of time that Marie Nyswander, M.D., was assigned to the Lexington Hospital as a Psychiatrist for the United States Health Service. Coinciden-tally, at this same period of time, Vincent P. Dole, M.D., a Specialist in Metabolic Disease at the Rockefeller University, became interested in heroin addiction through his studies of obesity, which in some respects might be considered addiction *to* food. Dr. Dole wanted to investigate drug addiction as having a metabolic, biochemical origin. As an initial step, he reviewed the existing scientific studies. Dr. Dole located a good

deal of literature, but there was one serious flaw; almost all of the American literature concerned itself with opiates in the test tube, laboratory animals, non-addicted volunteers or imprisoned addicts. He learned that American physicians in general had divorced themselves from the problems of the addict in the street ever since the early waves of physician arrests under the Harrison Narcotic Act.

Through a series of events, Drs. Dole and Nyswander united early in 1964 to jointly begin a research project investigating drug addiction, using Methadone as the vehicle. The two physicians developed their own techniques regarding detoxification and ultimately developed what is known today as daily Methadone maintenance. On the basis of their detoxification experience and treatment of just six patients, Dr. Dole visited the New York Commissioner of Hospitals armed with these six case histories, depicting their detox results with Methadone and asking for six hospital beds to continue with their research. The drug problem being so great in New York, the hospital commissioner ordered instead 20,000 beds and heavy financial support. One has to admire the care and concern they both had for the street addict. It was the first time in 50 years that physicians once again undertook the care of street addicts and they must have felt they had made a wonderful contribution to a pitifully neglected segment of our society! One still has to wonder, though, in light of the Harrison Narcotic Act language, why Dr. Dole and Nyswander, the Commissioner of New York Hospitals and Eli Lilly Company, not to mention the many physicians still dispensing Methadone Hydrochloride, to this very day, were not and are not arrested and prosecuted. Law enforcement and the federal government apparently have turned their heads the other way when Methadone entered the scene. While the federal government was so zealous in 1914 and 1915 prosecuting physicians, everyone was obviously so frustrated in dealing with the drug addict population in 1964, the federal government and law enforcement officers, as well as the judiciary, overlooked what did and does appear to be a clear violation of the language of the Harrison Narcotic Act. In every sense of the word, Methadone maintenance certainly and absolutely is prescribing opiates to an addict to maintain his addiction.

Dr. Dole is certainly correct in our view in his assessment that drug addiction is of metabolic and biochemical origins. We take a strongly similar view in light of our research that the metabolic and biochemical disruptions are most certainly one of the results of drug and alcohol addiction. When speaking of origins, one must strongly consider the possibility that poor nutritional habits developed through childhood, assisted tremendously to create these abnormal urges or desires in the first instance.

Exploding the Myth

Above all else in this Study we wanted to demonstrate conclusively that there is an ongoing misconception concerning the alcoholic and most particularly the drug addict. The traditional concept of "test clean" means the patient is "clean" or free of the addictive substance in his/her body. In other words, if the patient gives a blood or urine sample to the authorities and the test results prove negative for drugs, then the patient is assumed to be free of the drug from his/her body and now the patient is totally detoxed and a candidate for rehabilitation. If the patient can "test clean" for drugs, therefore, the "guts craving" for drugs that remains **must** be one of psychological origins, or at least so the traditional therapists in the field of alcohol and drug addiction would have us believe. Psychiatrists and Psychologists, after testing these "drug free" individuals, found they tested abnormally in the paranoid, schizophrenic perceptual, depression, suicide and IQ areas; therefore, the erroneous conclusion was reached that this population was, and is, an emotionally and mentally deficient group. Because of this erroneous belief, the rehabilitation therapy treats this class of patients psychologically with combative, confrontive, semi-confrontive, aversion therapies, religious teaching, or with drugs that are more detrimental to the organ systems than the drug the patient was recently taking. Nowhere in medicine are patients treated with such abusive and barbaric techniques.

Where have you heard of a carcinoma patient being treated with carcinoma cells, a pneumonia patient with pneumocci, a diabetic with sugar, a gonorrhea patient with gonococci, a comatose patient with sodium Seconal? This sort of "therapy" would not be tolerated; in fact, it would not go unpunished. Why then do we tolerate such abominable drugs as Methadone, LAAM, Ethanol, Antibuse, Darvon, Darvon-H, electrical devices and other barbaric devices to treat the infirm? Foul and abusive language is, for the most part, the order of the day. Shaving the hair off the head, being made to wear abusive and degrading signs, not being allowed to speak, sitting in a corner for hours on end, and there are many other unspeakable tactics used on a daily basis. Can this be rightfully called rehabilitation? These tactics are abusive, offensive, inhumane and must be put to an end. Religiously oriented programs should share a burden of this guilt as well. They allow an individual to go through the rigors of "cold turkey" while feeding their souls only, instead of the entire biochemical system. As if these people didn't have enough problems already; now if they fail in this type of program, they've failed God also. It seems too heavy a burden to carry.

There are literally hundreds of programs for alcohol and drug addiction in the United States and elsewhere that subscribe to the idea that the patients either have to live together, work together, eat together and sleep together or else they won't "make it" in society by themselves. This philosophy smacks of a throwback to pre-historic tribal life as opposed to an advancement in the treatment of these two malignancies that plague all corners of society. There are other programs that state categorically that if the patient is to "make it" he/she must listen to reassuring brethren sermons each evening of the week and since this patient is not to be trusted, his/her family is brought into the fold for lectures also. This is not treatment — it is in the end analysis a complex transfer of the addictive process from one addiction to another, neither of which is ultimately beneficial to the majority of patients.

While it is to be recognized that these types of "programs" were absolutely essential for all in the past, perhaps even for a minority in the present, clearly there is no plausible excuse for their continued existence in the future.

The word "patient" is used advisedly because all people afflicted with a drug or alcohol affliction will forever remain a "patient" untreated until he/she is decontaminated first.

The Decontamination Process and the Procedures Used for Physical Mental and Emotional Regeneration

It must be understood at the onset the techniques that were used in this Study were for a post-detox setting and one that is **not** to be used for acute detoxification. The techniques we employ for acute detox from alcohol and drugs are considerably different and involve both oral and intravenous applications.

Prior to the commencement of treatment, the patients were spoken to on three separate occasions about the intended Ortho-molecular treatment to encourage their voluntary participation. At all times there was a great deal of skepticism on the part of the patients about the effectiveness of what could be done for them.

It bears repeating at this point that these individuals were at this facility under Court Order as an alternative to jail or prison. They did not want to be there, nor were they inclined to be cooperative with any type or form of authority, no matter what its purpose. After three weeks of patient discussion, cajoling and frank answers to their numerous questions, the skeptics were quieted. With this most difficult period over, everyone was now ready to proceed in unison with the study.

On May 24, 1980, two days prior to initiation of treatment, the following tests were done in preparation: hair analysis; dietary evaluation form; health hazard appraisal; diagnostic health profile questionnaire; 35mm color slide of each patient; voice cassette recordings of each patient for drug history and voice levels; preparation of patients' charts.

One incident occurred this day that should be shared to note frame of mind. One man who had an ominous and menacing appearance refused to take part in testing and said he would not participate in the

program. After much discussion, it was finally determined that as he watched the hair samples being taken, he was afraid this was to be another "Jonestown mass murder" and he was quite frightened. He was to laugh about this later; however, he was quite serious at the time.

On May 25,1980, a 24-hour urine collection began for the vitamin C levels, quantitative amino acid fractionation, and the 24-hour urine Cortisol levels.

On May 26,1980, the 24-hour urines were collected by the medical laboratory. Prior to breakfast, the laboratory crew drew blood samples for SMA 18, B 12 levels, CBC and VDRL's. At exactly noon the nutritional program began. Each patient was given 5 grams of sodium ascorbate in a cup of orange juice. They were also given three tablets of Bronson's calcium complex with magnesium. This was continued in the same manner every two hours until 8:00 p.m.

On May 27, 1980, at 9:00 a.m., continuation was made with 4 grams of vitamin C with one calcium complex and magnesium. At 11:00 a.m. each patient was given three tablets of Bronson's vitamin insurance formula, three Bronson's super-B, three Bronson's 100 mg pantothenic acid, one Bronson's 60 mg zinc, and one Bronson's 100 mg B 1, as well as 4 grams of sodium ascorbate with one calcium complex with magnesium. At noon it was determined that all but three of the patients had experienced diarrhea, a state we believe to be **absolutely necessary** in order to decontaminate the body, as well as reinitiate normal peristalsis of the bowel. Of the three patients, one had a long history of chronic constipation; no explanation for number two; number three deserves special attention. This gentleman, a young man from Nicaragua had a right mastoidectomy in 1965. Approximately seven months ago he developed pain in his right ear. In March 1980, he consulted an ear specialist who advised the young man, after examination and cultures, that he had a staphylococcus infection. The specialist placed him on 500mg Ampicillin 1, four times daily. He was also given VoSol and advised to place 2 drops four times per day in his ear. This regimen had been followed for two months, with no real relief.

At 1:00 p.m. 4 grams of sodium ascorbate were given with one tablet of calcium complex with magnesium. The vitamins and minerals given at 11:00 a.m. were repeated at 3:00 p.m. and at 7:00 p.m. The sodium ascorbate was repeated at 5:00 p.m. At 8:00 p.m. blood pressures were taken with no adverse pressures noted.

On May 28, 1980, eight patients complained of headaches on the previous day; therefore, the vitamins and minerals were reduced by two-thirds on this date. At 9:00 a.m. 4 grams of sodium ascorbate with one tablet of calcium complex with magnesium were given. At 11:00 a.m. and 5:30 p.m. one insurance formula, one mineral insurance formula, one super-B, one pantothenic acid, one B1 and one zinc were given. Headaches were not complained of; at 1:00 p.m. on this date, a second cassette recording was taken to record progress.

On May 29,1980, at 11:00 a.m., 1:00 p.m. and 7:00 p.m., 4 grams of sodium ascorbate and one calcium complex with magnesium were given with each dose. At 11:00 a.m. and 5:00 p.m. one insurance formula, one mineral insurance formula, one super B, one pantothenic acid, one zinc and one B1 were given.

The young man with the chronic right ear infection finally had diarrhea on this date at 4:00 a.m. He stated he felt much better physically and mentally and could now sleep well for the first time since the infection developed. On this date it was decided to arrange an organized exercise program, as there was none, and none had ever been a part of the existing program prior to our arrival to conduct the Study.

On May 30, 1980, at 9:00 a.m. and 3:00 p.m., 4 grams of sodium ascorbate and one calcium complex with magnesium were given with each dose. At 8:00 a.m., 12:00 noon and 5:00 p.m., one vitamin insurance formula, one mineral insurance formula, one super-B, one pantothenic acid, one zinc and one B 1 were given. The vitamin C was reduced to 8 grams on this day and the entire patient population reported that they felt fine. All vitamins were given with meals and there were no stomach complaints.

On May 31, 1980, the same nutrient regimen as on May 30, 1980 was followed. At 3:00 p.m. a group discussion was held with

the patient population, discussing the results obtained thus far into the program. Their responses and participation were enthusiastically overwhelming. Following the discussion, one patient said he no longer suffered from the deep depression that had always been so much a part of him. This 29-year-old male went on to state that he no longer had the paranoia of when anyone walking directly toward him, he suffered the gripping fear that they were "coming to get him" and he would make a fist, preparing for a combative situation.

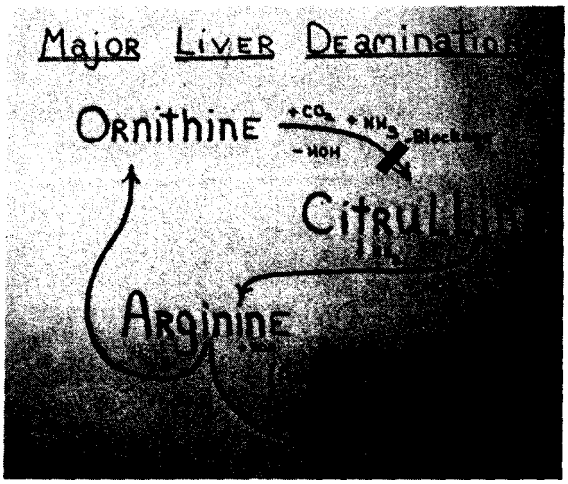
On June 1, 1980, a Sunday, only two meals were served. At 11:00 a.m. and 6:00 p.m., one vitamin insurance formula, one mineral insurance formula, one pantothenic acid, one zinc and one B 1 were given. At 3:00 p.m. 6 grams of sodium ascorbate, with one calcium complex with magnesium, were given.

On June 2,1980, at 8:00 a.m., 12:00 noon and 5:00 p.m., the patients were given one vitamin insurance formula, one mineral insurance formula, one super-B, one pantothenic acid, one zinc and one B 1. At 11:30 a.m. they were given 6 grams of sodium ascorbate with one calcium complex with magnesium. Two counselors indicated they noted improvement in their "case load" of patient handwriting. Patients indicated their delight with the improved quality and varied diet.

On June 3,1980, at 9:00 a.m., 6 grams of sodium ascorbate with one calcium complex with magnesium were given. At 12:00 noon and 5:00 p.m., one vitamin insurance formula, one mineral insurance formula, one super-B, one pantothenic acid, one zinc and one B 1 were given. On this date, the first psychological retesting was done. All tests completed on day one were re-done on this date for comparison. The test results are shown in the paper depicting psychological and IQ testing. The point to be re-emphasized again and again is that decontamination of the organ system first will bring about remarkable changes in the psychological profiles, as well as physical and emotional well-being.

On June 4, 1980, a second phase of the program was initiated by the addition of 22.5 grams of twenty-two uniquely combined "free" amino acids, comprising of 750mg per capsule. This formula is unique in that we had added to the traditional 18 amino acids normally found in amino acid formulas, Proline, Hydroxyproline and Citrulline, at our specific request. The addition of these amino acids was due to the fact that these three amino acids were found to be consistently "missing" in the majority of the 24-hour quantitative urine amino acids fractionations that had been studied on our many patients prior to this Study.

Citrulline plays a critical role in the completion of the urea cycle. Yet this important amino acid was found not to be present in any alcoholics and the majority of the drug addict's urine that had been tested over a period of six years. As a consequence of this important finding, the senior author is tempted to speculate that if Homocitrulline and Citrulline are not present to assist in conversion of ammonia to urea, the resultant accumulation of ammonia in the blood could possibly create the condition of Hepatitis or a Hepatitis-simulating condition and **NOT** vice-versa, as reported in all current literature.



This hypothesis was presented in a paper delivered at the 50th Anniversary Celebration of the Discovery of Vitamin C in 1978 by the senior author. This finding continues to hold true in all alcoholics and the majority of drug addicts' 24-hour urines tested from 1973 to the current time.

At 10:30 a.m., 2:00 p.m. and 7:00 p.m., ten amino acid capsules containing 750mg of amino acids in each capsule were given. With each application of amino acid capsules, one 500mg B 6 and one 10,000 I.U. of vitamin A (fish oil) were given.

The rationale for the amino acid intake is due primarily to the severe deficiencies consistently observed over several years in the 24-hour urine amino acid assays. Drugs and alcohol create crippling nutritional deficiencies. The B 6 is used to offset any deficiency of this critical vitamin as nonessential protein metabolism will not occur if a vitamin B 6 deficiency exists. Vitamin A is necessary whenever protein is given, as evidenced by the critical mistake made by UNICEF when feeding hungry children with powdered milk in South America during 1964. There is always an increased need for vitamin A whenever protein is used. In the case of the South American children, permanent eye damage and blindness occurred. When UNICEF returned four years later, the protein powder was fortified with vitamin A and no problem occurred.

At noon the patients were given one insurance formula, one mineral and one Super-B tablet. At 5:00 p.m. they were given 6 grams of sodium ascorbate and one calcium complex with magnesium.

On this date the patient with the chronic ear infection revisited the ENT specialist. The physician was amazed at how well the ear had suddenly healed, since the infection had been so resistant to treatment. The specialist discontinued the antibiotic as there was no further need and the only change in this man's life style was vitamin C and the other previously mentioned nutrients.

This nutritional regimen was continued as described from June 5, 1980, until June 15, 1980. On June 16,1980, a new routine was initiated. The sub-lingual B 12 lozenges previously described in the third paper of this Study were implemented. While these lozenges did not conform to prior specifications as to size and shape, they did contain 1,000 mcg of cyanocobalamin, with no sugar additives and were quickly soluble under the tongue, much as a nitro-glycerin tablet used for Angina Pectoris attacks.

One tablet was given under the tongue three times a day for a period of the next seventeen days. The daily routine from June 16, 1980, until July 2, 1980, was the following: One insurance formula, one mineral, one Super-B, one pantothenic acid and one zinc tablet per day. Six grams of sodium ascorbate and one calcium complex with magnesium tablet were given per day.

On July 3, 1980, the blood chemistries were drawn for the second time and the third psychological testing was done. Once the testing was completed, this effectively ended the Study, a total of 40 days.

With the accumulated data collected on each individual in the Study, an analysis was made of the biochemical makeup and the chronic nutritional deficiencies each individual had due to the abuse of alcohol and/or drugs. An individual maintenance program was given to each patient along with recommendations, according to their prior eating habits, of foods to include or exclude in the future in order to maintain a happy, wholesome life without the abnormal cravings that nutritional deficiencies create.

Formulations used in this Study were all Bronson Pharmaceuticals with the exception of the amino acids.

VITAMIN C (Sodium Ascorbate)
Soluble fine crystals 1/4 teaspoon
supplies approximately 1 gram ..... ….. 1000 mg

VITAMIN B 6 (Pyridoxine Hydrochloride) .....500 mg

ZINC (Derived from Zinc Gluconate 429 mg)
One tablet contains ..... ……. 60 mg

VITAMIN A (Fish Oil)..... 10,000 I.U.

CALCIUM COMPLEX & MAGNESIUM One tablet contains:

Calcium ..... ……. 375 mg

(cont'd, pg. 285)

Derived from:
Oyster Shell ..... 318 mg
(supplying 125 mg Calcium)
Egg Shell ..... 338 mg
(supplying 125 mg Calcium)
Bone Meal ..... 304 mg
(supplying 100 mg Calcium)
Calcium Lactate ..... 170 mg
(Milk Calcium, supplying 25 mg Calcium)
Magnesium ..... 150 mg
Derived from:
Magnesium Oxide ..... 250 mg

MINERAL INSURANCE FORMULA One tablet contains:
Calcium (Calcium Phosphate) ..... 83.4 mg
Phosphorus (Calcium Phosphate)..... 83.4 mg
Magnesium (Magnesium Oxide) ..... 66.7 mg
Iron (Ferrous Fumarate) ..... 5 mg
Zinc (Zinc Gluconate) ..... 5 mg
Copper (Copper Gluconate) ..... 0.67 mg
Iodine (Kelp) ..... 0.05 mg
Manganese (Manganese Gluconate)..... 1.68 mg
Molybdenum (Sodium Molybdate)..... 0.034 mg
Chromium (Chromic Sulfate) ..... 0.34 mg
Selenium (Selenium Dioxide) ..... 0.0067 mg

SUPER B One tablet contains:

B 1 (Thiamine Mononitrate) ..... 50 mg
B 2 (Riboflavin)..... 50 mg
B 6 (Pyridoxine Hydrochloride) ..... 50 mg
B 12 (Cyanocobalamin)..... 100 mg
Folic Acid ..... 400 mcg
Biotin ..... 400 mcg
Pantothenic Acid
(D-Calcium Pantothenate) .....….100 mg
Niacinamide..... 300 mg

BRONSON INSURANCE FORMULA One tablet contains:
A (Palmitate) ..... … 2,500 I.U.
D (Cholecalciferol)..... .. 133.4 I.U.
E (Alpha Tocopherol)
(as DI-Alpha Tocopherol Acetate) ..... …. 13.4 I.U.
C (Ascorbic Acid) ..... 83.4 mg
B 1 (Thiamine Mononitrate) ..... 0.67 mg
B 2 (Riboflavin)..... 0.67 mg
B 6 (Pyridoxine Hydrochloride)..... 1 mg
B 12 (Cobalamin Concentrate) ..... 3 mcg
Niacinamide ..... 6.67 mg
Pantothenic Acid (D Calcium Pantothenate)..... 5 mg
Biotin ..... 0.1 mg
Folic Acid ..... 0.134 mg
Choline (Bitartrate) ..... 83.4 mg
Inositol..... 83.4 mg

Para-Amino-Benzoic Acid ..... 10 mg
Rutin ..... 66.7 mg
Calcium (Calcium Phosphate) ..... 83.4 mg
Phosphorus (Calcium Phosphate) ..... 83.4 mg
Magnesium (Magnesium Oxide) ..... 66.7 mg
Iron (Ferrous Fumarate) ..... 5 mg
Zinc (Zinc Gluconate) ..... 5 mg
Copper (Copper Gluconate) ..... 0.67 mg
Iodine (Kelp) ..... 0.05 mg
Manganese (Manganese Gluconate) ..... 1.67 mg
Molybdenum (Sodium Molybdate) ..... 0.034 mg
Chromium (Chromic Sulfate) ..... 0.34 mg
Selenium (Selenium Dioxide) ..... 0.0067 mg
VITAMIN B 1 (Thiamine Hydrochloride)..... 100 mg
PANTOTHENIC ACID (D-Calcium Pantothenate) ..... 100 mg

Conclusions

1. Historically, alcoholism has existed as a serious social problem for a very long time. The problem has continued to escalate until now it is of epidemic pro portions. The sociological, psychological and medical scientists have failed utterly to reduce its devastating growth. Despite their failure to contribute anything of proven and lasting value over the years, their antiquated and ineffective principles continue to appear in texts and journals as the "gospel" in treating a problem that is quite obviously beyond their grasp.

   Drug addiction has a much shorter history. However, it has mushroomed and has overgrown its host, just as a bacterium will flourish when it becomes resistant to antibiotics. It is time to recognize and accept the fact that the present programs do not, will not, and cannot work in the treatment of any form of substance abuse.
2. Law enforcement agencies, following the enactment of the Harrison Narcotic Act, decided to become involved in drug addiction through their interpretation of the Act. All of their most intense efforts have failed to have any lasting effect on the problem of substance abuse and their failure ratio is worsening each day. Addicts are not basically criminals. They become criminals because of their de pendence on the addictive substance. A diseased body does not respond to legislation.
3. Medicine's level of contribution has resulted in the branding of addicts as chronic and incurable. In other words, the addictive person must wear the brand of an alcoholic or drug addict forever. The addicts' treatment has, for the most part, been placed in the hands of psychiatrists and psychologists. Their treatment has proven almost totally ineffective. There have been a few voices in the past that suggested that the addict might really be sick. Despite this, the treatment has been symptomatically oriented and the basic disease proves it has been ignored.
4. Our Study has shown that all addictions are biochemical and psychological diseases, but this study has clarified many questions about the basic pathological processes that are involved in this multiple disease process. This treatment is based on the fact that toxic contaminants must be removed before any treatment can be effective. Therefore, the initial phase is termed decontamination rather than detoxification, although either term is acceptable as long as one understands that contamination is the basic problem to deal with first. No drugs are involved and none need be involved as each drug, regardless of its effect, is a foreign substance which becomes a contaminate and may produce an even more serious condition. Therefore, decontamination, replacement and maintenance are the

three essential phases of our treatment.

5. Education of medical and social agencies as to the exact basic nature of the biochemistry involved in addiction must be our first goal. Once this is done, we can proceed to the second goal of a realistic research and a developmental phase. Our third and ultimate goal is to eradicate this problem. In order to reach this goal, it will require treatment, education and research, which will develop to the final stage of prevention. Prevention of addiction by proper feeding and supplementation of all young individuals will make the manufacturer of addictive substances unprofitable, remove the market and the problem will eventually resolve itself.
6. Through this Study it has been effectively demonstrated that toxic residues from alcohol and drugs do remain in the organ systems for an indeterminate period of time and until they are removed, effectively, there is no prolonged hope for the patient to stay "clean."

Summary

A word of caution to any and all who may read these papers. It should now be readily apparent that alcohol and drug problems are not to be solved by home remedies, the untrained, the ex-addict or the ex-alcoholic; particularly so if we speak of acute detoxification, which none of these four papers addressed. This is an Orthomolecular medical problem, and will only be conclusively solved by Orthomolecular scientists.

This study was accomplished under most adverse conditions. The counselors were not under our control or authority and, for the most part, were ex-addicts, a tradition to which we do not subscribe at the Libby Institute. The counselors were suspicious of our techniques which, somehow in their minds, translated into an alleged threat to their job security. As a result, we received little or no cooperation from the entire staff. The house physician expressed little or no interest in what was being attempted. As of this writing, two years after the fact, the physician has never asked to review even one test result. With the exception of one, all probation officers were contemptuous, suspicious, and outright hostile over our new approach for their charges. The probation officers at no time offered any form of encouragement to their post-detox, court appointed charges for rehabilitation, to either volunteer or cooperate in this study.

The volunteer patients were appointed to this facility with varying jail sentences ranging from six months to two years. Despite these individual differences, all patients remained under the same rigidly controlled circumstances throughout the study. Each probation officer visited his charges weekly and collected urine specimens at unannounced times, to be examined for illicit drugs. No positive urines were reported during the study.

Due to the restrictions placed by the court on all patients, no follow-ups were contemplated nor pursued. It was discov-. ered at a later date, by post-study contact with at least ten of the patients at various times, that the counselors, with the exception of one, refused permission to the patients for making telephone calls to the Libby Institute for follow-up or guidance. However, it was never our intent to conduct any formal, short-term or long-term follow-up. Following up on patients would have necessitated an additional study which we were not financially prepared to undertake. Our technique requires a diagnostic work-up that is as extensive as any branch of medicine can boast. We are able to quickly decontaminate and detoxify each patient, thus removing the "guts craving" for the addictive substances, leaving them mentally, emotionally and physically in the best condition ever. We conducted the diagnostic work-up, pre-test and post-test so that we have quantitatively comparable data on the psychological and chemical profiles. When all wellness criteria are met, the patients are discharged with more than sufficient data to take home with them in order to maintain their wellness. It does not seem logical or medically prudent to impose further restrictions on the patient. True wellness is self perpetuating.

Acknowledgements

The senior author in this series of four papers wishes gratefully to acknowledge the following for making this Study possible

through their donations of time, services, products and money. All professionals listed in these four papers as co-authors have donated their time and expertise to fulfill the requirements of the Study.

Special acknowledgement is given to Dartell Laboratories for manufacturing the revolutionary sublingual vitamin B 12 lozenge; to Dietronics for donating the Hair Analysis, Computerized Dietary Evaluation, Medical History and Health Hazard Appraisal examinations; to Key medical laboratories for donating the entire pre-test, post-test blood chemistry examination; to M2 Ethicals for donating the free-form amino acid capsules, and to Hester Preble for her pioneering work in developing the amino acid formulas; to Frank Bronson of Bronson Pharmaceuticals for donating $500.00; to Dr. Dale Richardson for donating a stove, food, athletic equipment, cards and games; to Patricia L. Haas who had the courage to try something "new and different" in her capacity as Executive Director of a community sponsored on-going drug and alcohol rehabilitation center, to Maria and Ricky Huertas who donated a color TV set for the patients' enjoyment.

And finally, to Winifred Ann Libby, who provided the much needed moral support and $3,000.00 of her personal money for the purchase of vitamins, minerals and extra food to insure that the Study would be completed.