

Operation Rescue

Essential Solutions For Immunity From The Silent War

Compiled And Written, June 1997,

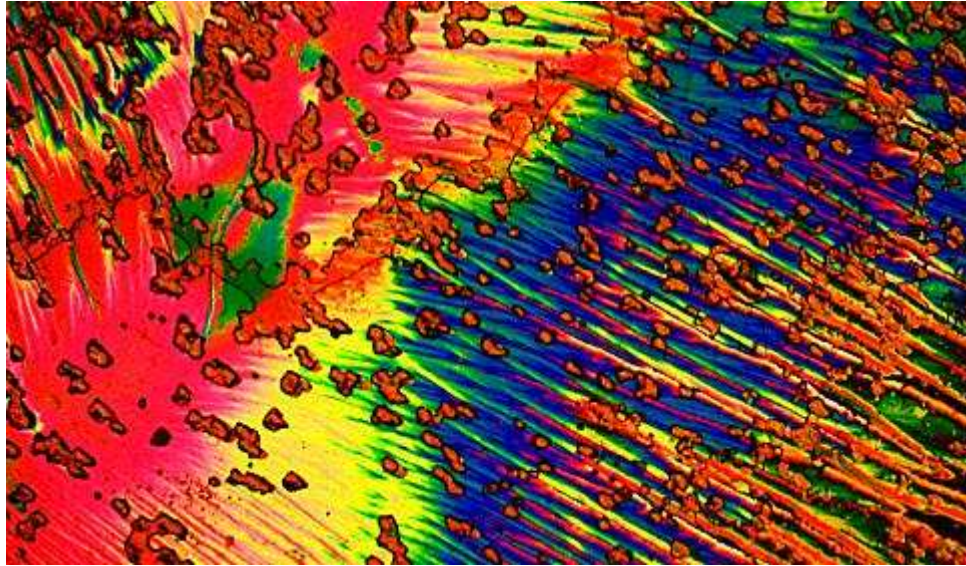
BY ANANDA

We all shudder when we again remind ourselves of the gas chambers used during world war 2. Since 1954, however, a new form of warfare was implemented on the global populace - a quite war. The testimony of former military personnel, doctors, bankers, and court released documents, define and demonstrate, overwhelmingly the intentional existence of this silent war, which utilises quite weapons, such as economic tools, biological additives, and cancer forming drugs etc. Overpopulation management, is the excuse, at the forefront, for this gradual attack on the human populace's health, and mind. It is not in the scope of this small book to cover the detailed documentation, here (see my book *Sovereignty: The Emergency For Independence From The European Slave Machine*, for documentation, 1993).

With the deliberate suppression of the various cancer cures and causes by the medical CORPORATE establishment when we are now in a global cancer crisis, requires the absolute alertness of ALL who care to survive into the next century and into the next years.

With 1 out of 1 persons, in the US, in their lifetimes coming down with one form of cancer or another, and this unbelievably is increasing to with an acceleration of more than one cancer per person, appearing in one lifetime. People, due to lack of inquisitiveness, and lack of redundant energy, due to extra survival stress in economic maintenance, are willing to line up to the modern gas chambers, known as Chemo Therapy. Here the nuclear waste, which usually costs billions, each year for the energy corporations to dispose of, is "usefully" disposed of with a profit, from the sick, and which often disposes of the individual (especially, if they have not negotiated radioactive dosing with their doctors).

In this booklet we then compile, the solutions all around, which are not new, but which have been there all the time, and will be a requirement for all. As we are to help our friends and surrounding sincere fellow human beings, of all backgrounds, in the balance of the rainbow races, that humanity is a remnant off.



Vitamin C, a rainbow of beauty at the crystal microscopic perspective.

EMERGENCY EMERGED FROM THE MEDICAL CORPORATE STATE

The Orthodox Cancer Cure Hoax

"Everyone should know that most cancer research is largely a fraud and that the major cancer research organisations are derelict in their duties to the people who support them."

- Linus Pauling PhD (Two-time Nobel Prize winner).

In the United Kingdom alone, the Cancer Research Fund-Raising Syndicate are now clawing in over £100 million per year. An army of commission-paid agents, old ladies with their life savings, school children, posers walking in the Alps with elephants, marathon runners, tin wavers and unpaid volunteers, have all helped to create by far the most successful fraud in history.

"Economics and politics simply intertwine in shaping conventional medicine's approach to cancer. Very simply put, treating disease is enormously profitable, preventing disease is not."

-British Cancer Control Society.

Nearly one in two of the population have, or will develop, cancer. The vast majority will choose the drug/radiation/surgery package produced by the vivisection laboratories, and over half will be dead within two years. According to America's leading cancer statistician, Professor Hardin B Jones, the orthodox onslaught kills the patient up to four times faster than the disease does.

By all pointers - incidence, severity and death-rate, the disease has long been out of control. The causes of cancer are too numerous to list fully, suffice to say that certain sections of society have been allowed a free hand to do as they wish with our food, drink, medicine and environment. The petrochemical industry and, in particular, its pharmaceutical wing, the general practitioner, food processor, cigarette manufacturer, farmer and radiologist, can all stake their claim as cancer producers.

An endless saturation of the environment with synthetic poisons; a million prescriptions for petro-derivative drugs, per day, from UK doctors; vaccination; fluoride waste dumping in the water supply; cigarettes; X-radiation used as though it were sunshine; and poisoned, adulterated food, have all helped to push cancer

beyond epidemic levels, and yet the attitude of the public is to look the other way and hope the thing disappears.

The five year survival rates for the major cancers are:

Stomach - 5%

Trachea, bronchus and lung - 5%

Breast - 50%

Oesophagus - 5%

Large intestine - 22%

Pancreas - 4%

Liver - 2%

The definition of cure in cancer is the restoration of health to the cancer patient; the restoration of the immune system, and the elimination of cancer through this system. Detecting cancer early enough, attacking the tumour with the slash/burn/poison version of cancer therapy, and then pronouncing "cured" after the five year survival period has elapsed, has, of course, nothing remotely to do with the successful treatment of the disease.

Patients who die from the effects of chemo or radio "therapy" after more than five years have passed are counted as cured. Being dead or dying does not exclude one from the figures of the cancer industry's creative statisticians. Claims, by the fund-raisers and their media-lackeys, of "One third of cases can now be cured" and

"80,000 cured each year" , may have pushed contributions past the golden £100 million a year mark, but these have only year helped to ensure that the cancer holocaust continues to worsen.

The only "breakthroughs" by the Cancer Business have been financial. Agencies vie with each other to relieve the public of their cash in order to fund an endless stream of totally fraudulent research projects, and keep an army of vivisectionists, animal breeders, and administrators, in cigars and brandy and yachts and aeroplanes.

The cancer industry is sustained by a policy of deliberately facing in the wrong direction, as was accurately summed up by the American newsmen, Robert Houston and Gary Null:

"A solution to cancer would mean the termination of research programs, the obsolescence of skills, the end of dreams of personal glory, triumph over cancer would dry up contributions to self-perpetuating charities....It would mortally threaten the present clinical establishments by rendering obsolete the expensive surgical, radiological and chemotherapeutic treatments in which so much money, training and equipment is invested....The new therapy must be disbelieved, denied, discouraged and disallowed at all costs, regardless of actual testing results, and preferably without any testing at all."

The multitude of highly paid vivisectors, animal breeders, petrochemical drug interests, salesmen, prescribers, surgeons, radiation machine makers and operatives, equipment makers and the rest, aided and abetted by agents in government, health departments and the mass media, suppress or attempt to discredit all information on the safe, effective, rational approach to the disease.

Every couple of months the media agents announce a cancer research breakthrough, with a particularly good fund-raiser being to parade a "cured" child on the television screen. Ignoring mischievous cancer statisticians: "I wouldn't be surprised if they are curing a lot of leukaemia that never existed", the lengthening of survival times ("cures") is down to the fact that less children are being killed within weeks or days through the effects of lethal, class six, super poisonous "chemotherapy". And whilst any lessening of the petrochemical drug lunacy is, of course, to be welcomed, the notion that these cases are steps on the way to the "conquest of cancer" is too bizarre to warrant intelligent discussion.

Cancer is, basically, a nutritional/environmental disease - it has never been incurable, nor is it anything to do with bad luck. The medical orthodoxy resisted vitamin C as a cure for scurvy for over 200 years; the British Navy, alone, lost over a million men before the academic blockheads could be persuaded to give up their search for mystery "germs" and wonder cures from the chemical industry and turn towards the "witch-doctor cures of ignorant savages." All over the world countless

people have been restored to health using naturopathic and other therapies, yet they have been ruthlessly suppressed in order to protect the vested interests of the cancer industry.

"The use of animals in cancer research has been attacked as unnecessary cruelty to animals, and defended as absolutely essential for research progress....From a scientific standpoint, what is pertinent is that what are called 'animal model systems' in cancer research have been a total failure....The moral is that animal model systems not only kill animals, they also kill humans. There is no good factual evidence to show that the use of animals in cancer research has led to the prevention or cure of a single human cancer."

-Dr Irwin D Bross PhD

For over two hundred years the inmates of the vivisection laboratories have tormented to death hundreds of millions of animals. Over 800 ways of inducing tumours in animals have been found, not one of which is remotely related to a cancer which has developed spontaneously in a human.

Tumours are implanted under the skin, and then observed as the growth takes over the body, animals are radiated, limbs become gangrenous and fall off, force feeding large amounts of toxic substances causes vomiting and fits - until death intervenes.

"The ably exploited fear of this dread disease, caused mainly by the

products issuing from chemical and industrial laboratories, has become an inexhaustible source of income for the researchers, for the pharmaceutical industry, and the medical establishment. In the course of our century, so-called cancer research and cancer therapy have become a source of solid gold without precedent."

-medical historian, Hans Ruesch (from his book, Naked Empress)

Animal-based "cancer research" fund-raisers include: The Imperial Cancer Research Fund, The Cancer Research Campaign, The Leukaemia Research Fund, Tenovus Cancer Research, The Yorkshire Cancer Research Campaign, Cancer and Leukaemia in Childhood Trust, Institute of Cancer Research, World Cancer Research Fund.

If you support animal-based "cancer research" you are supporting the biggest fraud, medical or otherwise, in history, and the cruel and senseless torture and killing of your fellow beings; both human and animal.

You can help to bring vivisection's end one step nearer by joining the BAVA.

Members receive the BAVA journal, the New Abolitionist, four times per year. The 36 page booklet, Cancer Epidemic - A Question of Survival, by naturopath Patrick Rattigan, is available from the BAVA, price £2.00 inc p&p.

British Anti-Vivisection Association, PO Box 82, Kingswood, Bristol, BS15 1YF

"While the people are being lied to...and drugged and inoculated for the

benefit of the huge chemical combines who own the Press and Radio, it is obviously necessary to hit back with the truth."

-Lionel Dole, The Blood Poisoners, 1965.

"Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers".

-Article 19, Universal Declaration of Human Rights.

The Ultimate Cancer Conspiracy:

Vitamin B17 and Laetrile

by Joe Vials

During 1950 after many years of research, a dedicated biochemist by the name of Dr. Ernst T. Krebs, Jr., isolated a new vitamin that he numbered B17 and called 'Laetrile'. As the years rolled by, thousands became convinced that Krebs had finally found the complete control for all cancers, a conviction that even more people share today. Back in 1950 Ernst Krebs could have had little idea of the hornet's nest he was about to stir up. The pharmaceutical multinationals, unable to patent or claim exclusive rights to the vitamin, launched a propaganda attack of

unprecedented viciousness against B17, despite the fact that hard proof of its efficiency in controlling all forms of cancer surrounds us in overwhelming abundance.

In his brilliantly researched 1974 book *World Without Cancer*, researcher and author G. Edward Griffin explains the trophoblastic theory of cancer proposed by Professor John Beard of Edinburgh University, which states that certain pre-embryonic cells in pregnancy differ in no discernible way from highly-malignant cancer cells. Edwards Griffin continues:

"The trophoblast in pregnancy indeed does exhibit all the classical characteristics of cancer. It spreads and multiplies rapidly as it eats its way into the uterus wall preparing a place where the embryo can attach itself for maternal protection and nourishment."

The trophoblast is formed in a chain reaction by another cell that Griffin simplifies down to the 'total life' cell, which has the total capacity to evolve into any organ or tissue, or a complete embryo. When the total life cell is triggered into producing trophoblast by contact with the hormone estrogen, present in both males and females, one of two different things

happens. In the case of pregnancy the result is conventional development of a placenta and umbilical cord. If the trophoblast is triggered as part of a healing process however, the result is cancer or, as Edward Griffin cautions: "To be more accurate, we should say it is cancer if the healing process is not terminated upon completion of its task."

Stunning proof of this claim is readily available. All trophoblast cells produce a unique hormone called the chorionic gonadotrophic (CGH) which is easily detected in urine. Thus if a person is either pregnant or has cancer, a simple CGH pregnancy test should confirm either or both. It does, with an accuracy of better than 92% in all cases. If the urine sample shows positive it means either normal pregnancy or abnormal malignant cancer. Griffin notes: "If the patient is a woman, she either is pregnant or has cancer. If he is a man, cancer can be the only cause." So why all of the expensive, dangerous biopsies carried to 'detect' cancerous growths? One can only assume that medicare pays doctors a larger fee for biopsies than pregnancy tests.

So how is it that any of us gets cancer in the first place. Is it exposure to cigarette smoking, intense sunlight or perhaps the effect of toxic food additives? Dr. Krebs thinks not. All of the

hard biochemical evidence points to the fact that cancer is a simple deficiency disease of vitamin B17, long ago removed from our highly refined, western diets. Krebs postulates that the so-called 'carcinogens' are merely stress triggers that finally expose the B17 deficiency with devastating effect.

The proof Krebs has presented over the years to support his claim is impressive. Centuries ago we used to eat millet bread, rich in B17, but now we chew our way through wheat which has none at all. For generations our grandmothers used to carefully crush the seeds of plums, greengages, cherries, apples, apricots and other members of the botanical family Rosaceae, and diligently mix them with their home made jams and preserves. Grandma probably didn't know why she was doing it, but the seeds of all these fruits are the most potent source of B17 in the world. In the tropics, large quantities of B17 are found in cassava, also known as tapioca. When did you last eat some?

Independent research has also proved that a Himalayan tribe known as the 'Hunza' never contract cancer of any kind so long as they stick to their native diet which is exceptionally high in both apricots and millet. However, once exposed to western diets they become as vulnerable as the rest of us.

The implications of these findings are staggering of course. If we managed to control Scurvy (vitamin C deficiency) centuries ago, how is it we cannot do the same for cancer today? The fact of the matter is that we could if our respective governments would allow it. Unfortunately most governments have buckled under the pressure exerted by the pharmaceutical multinationals, the American Food & Drug Administration, and the American Medical Association. All three have mounted highly successful 'scare' campaigns based on the fact that vitamin B17 contains quantities of 'deadly' cyanide; conveniently forgetting that vitamin B12 also contains significant quantities of cyanide, and has long been available in health food shops world-wide.

Dr. Kreb's B17 Laetrile was derived from apricot seeds and then synthesized into crystalline form using his own unique process. Suddenly, the American FDA bombarded the media with a story about an unfortunate couple who had poisoned themselves by eating raw apricot seeds in San Francisco. The story made headline news across the U.S.A. although several suspicious journalists never managed to establish the identity of the unfortunate couple, despite many determined attempts. But the multinational pharmaceutical/FDA boot had been put in with a vengeance. From

that point onwards eating apricot seeds or B17 Laetrile became synonymous with committing suicide...

Back in the fifties Dr. Ernst Krebs proved beyond doubt that B17 was completely harmless to humans in the most convincing way possible. After testing the vitamin on animals, he filled a large hypodermic with a mega-dose which he then injected into his own arm! Drastic perhaps, but the adventurous Dr. Krebs is still alive and well today.

The vitamin is harmless to healthy tissue for a very simple reason: Each molecule of B17 contains one unit of cyanide, one unit of benzaldehyde and two of glucose (sugar) tightly locked together. In order for the cyanide to become dangerous it is first necessary to 'unlock' the molecule to release it, a trick that can only be performed by an enzyme called beta-glucosidase. This enzyme is present all over the body in minute quantities, but in huge quantities (up to 100 times as high) at cancerous tumour sites.

Thus the cyanide is released only at the cancer site with drastic results, which become utterly devastating to the cancer cells because the benzaldehyde unit also unlocks at the same time.

Benzaldehyde is a deadly poison in its own right, which then acts synergistically with the cyanide to produce a poison 100 times more deadly than either in isolation. The combined effect on the cancer cells is best left to the imagination.

But what about danger to the rest of the body's cells? Another enzyme, rhodanese, always present in larger quantities than the unlocking enzyme beta-glucosidase in healthy tissues has the easy ability to completely break down both cyanide and benzaldehyde into beneficial body products. Predictably perhaps, malignant cancer cells contain no rhodanese at all, leaving them completely at the mercy of the cyanide and benzaldehyde.

Any physician reading this article will probably be shaking with self-righteous indignation at this stage, muttering to himself:

'Yes, but where is the PROOF???'

Right here! Most people have heard of 'spontaneous remission', where the cancer simply goes away, hopefully never to reappear. Spontaneous remissions are exceedingly rare and vary from one form of cancer to another. One virulent variety known as testicular chorionepithelioma has never been known to produce a single spontaneous remission. Perhaps for that precise reason,

Dr. Krebs singled it out for special attention when proving the effectiveness of B17 Laetrile in providing total control for cancers. As Edward Griffin recounts:

"In a banquet speech in San Francisco on November 19, 1967, Dr. Ernst T. Krebs, Jr., briefly reviewed six such cases. Then he added:

Now there is an advantage in not having had prior radiation, because if you have not received prior radiation that has failed, then you cannot enjoy the imagined benefits of the delayed effects of prior radiation. So this boy falls into the category of the "spontaneous regression..." "

And when we look at this scientifically, we know that spontaneous regression occurs in fewer than one in 150,000 cases of cancer. The statistical possibility of spontaneous regression accounting for the complete resolution of successive cases of testicular chorionepithelioma is far greater than the statistical improbability of the sun not rising tomorrow morning."

Wisely perhaps, Griffin notes that because of the adverse publicity against B17 Laetrile, and because of the difficulties

in obtaining the 'banned' substance, most cancer sufferers turn to the vitamin as a last resort, long after they have been burned by radiation therapy, and/or poisoned by chemotherapy. He points out that once the body organs have been savagely damaged in this way, there is little if any chance of B17 Laetrile being able to effect a cure. The body is simply too far gone.

When World Without Cancer was written back in 1974, B17 Laetrile was freely available in Australia. It is not now. A recent check with the Australian Cancer Foundation and health authorities revealed that nowadays Canberra considers each individual case on its merits, then decides whether the patient should be allowed to import sufficient of the material for his or her own personal use. If he or she manages to jump that hurdle, it is then his or her own responsibility to find a doctor prepared to inject it. Seemingly the multinational pharmaceutical lobbyists managed to get to our politicians before Dr. Krebs could get to the Australian public. Radiation and chemotherapy are highly profitable, and oncologists have to make a decent living...

Only a few months ago Australian nationwide television carried the delightful information that two out of every three Australians can expect to suffer skin cancer at least once during

their lifetimes. On the massive evidence provided by Dr. Ernst Krebs, Jr. and G. Edward Griffin, that figure could be crushed to a tiny percentage of the anticipated numbers if Australians were allowed freedom of choice where B17 Laetrile is concerned. It is time for Australians to take a stand on this lethal issue.

Now many of the alternative cures for the silent WW3 generated diseases, are being placed under the labels of drugs. Such ancient traditional remedies such as herbs, and in our day vitamins, are already being placed under the drug category. Injectable vitamin C, beyond one gram, even in homeopathic form (that is no physical molecule) is illegal and is considered a drug, today in Italy. Hard to believe? Thought you knew you could trust the good old corporations? Perhaps you never had a chance to think. Here is food for thought of prime examples:

Attack On Essential Nutrients By The Health Protection Branch (HPB):

The Who Codex Connection

By Saul Kent, President of The Life Extension Foundation

Kava kava, a rather innocuous anti-stress herbal remedy in use for several decades in Canada without incident, was recently prohibited (November, 1996) from sale by the HPB (Health Protection Branch).

DHEA, a very popular health food store supplement extracted from wild yam was also the target of the HPB supplement police (November 13, 1996). Several months previous to this, melatonin was the HPB victim. All this has gone on despite zero deaths or

even any serious adverse reactions taking place as a result of Kava kava, DHEA, or melatonin.

Meanwhile, the death toll continues to rise as a direct result of "safe and effective" prescription and over the counter drugs like non-steroidal anti-inflammatories (NSAIDS), cough and cold remedies containing pseudophedrine, and broad spectrum antibiotics.

Drugs like the NSAIDS which can cause gastrointestinal hemorrhage and which were previously available on prescription only are now easily obtainable over the counter. Narcotics like codeine (in ASA + caffeine + codeine pain tablets) can also be obtained without any difficulty just by asking the pharmacist.

In the USA, this is not possible and every narcotic requires a written doctor's prescription. Acid suppressing drugs which can also cause impotence and candida overgrowth were previously only available by prescription. The public is now welcome to experience these side effects via the over the counter route. As more and more potentially dangerous drugs are accessible to the public, less and less natural health care products remain available.

Why is this Happening?

Some of you by now must be wondering if there is any sense that can be made out of this recent illogical behaviour of the HPB. An understanding of the Codex connection will suddenly make things quite clear. Codex is officially known as the United Nations/World Health Organization (WHO) Codex Alimentarius (Nutrition Code) Commission. It meets every 2 years, usually in Rome, and is considered by many legal experts to be the greatest threat to health freedom in the world today. You will not find much in the mainstream media on Codex, a secretive group that would prefer to remain anonymous. Most of what follows is taken from various web sites on the Internet.

Codex is empowered by governments to set standards of operation for the health industry. Over 90% of the international organizations "allowed" to send delegates to the meetings represent giant multinational pharmaceutical corporations. The only "consumer" organization is the "International Organization of Consumer Unions". Neither the natural health care industry nor the general public have any representation at Codex meetings.

In October, 1996, Codex met in Bonn, Germany, to make radical

changes in the rules governing dietary supplements for member nations. The proposals of greatest concern were those made by the German delegation ("Proposed Draft Guidelines for Dietary Supplements"), which is being sponsored by Hoechst, Bayer, and BASF.

These are the three drug companies formed when the Nuremberg War Trials disbanded IG Farben, manufacturer of the poison gas used in Nazi concentration camps. Although IG Farben may have been disbanded, none of its directors were ever penalized for their actions during the war. They simply divided what remained from the company and split into three separate entities.

The three Nazi-connected German drug companies have stated their main purpose as being to "...create a set of international standards to guide the world's growing food industry and to protect the health of consumers." If you really believe that, I have some ocean front property for you at half price in Saskatoon. The drug company backed proposals call for the following:

1. No vitamin, mineral, herb, etc., can be sold for prophylactic (preventative) or therapeutic reasons.

2. Natural remedies can be sold as food but they must not exceed the potency (dosage) levels set by the commission.

This means that consumer access to dietary supplements will be limited to the RDA dosage as a maximum limit for vitamins (vitamin C - 60 mg, vitamin E - 15 mg, etc.). Supplements without an RDA (e.g. coenzyme Q10) would be illegal to sell because they would all become drugs.

3. Codex regulations for dietary supplements would become binding, eliminating the escape clause within the General Agreement of Tariffs and Trade (GATT) that allows a nation to set its own standards. This applies to all member countries of the U.N. Any nation that does not accept and apply these new standards will be heavily fined by the World Trade Organization (WTO), creating the potential for crippling entire sectors of the nation's economy.

4. All new supplements would be banned unless they went through the Codex approval process.

Five steps have already been taken in the Codex process over the past few years. Remember Canadian Bill C-7 which was passed

eventually in Canada as C-8? The similarity of the process, the secrecy, and the wording between the Codex proposals and the Canadian laws is uncanny.

Voting in favour of adopting the German proposal has been overwhelming (16 for and 2 against in the most recent vote). The Codex process is now at "Step Five" - formalization and debate concerning the specific features. In two years, Codex could jump from step 5 to step 8 to finalize these restrictions. The Codex proposals already exist as law in Norway and Germany, where the entire health food industry has literally been taken over by the drug companies. In these countries, vitamin C above 200 mg is illegal as is vitamin E above 45 IU, Vitamin B1 over 2.4 mg and so on. Shering-Plough, the Norway pharmaceutical giant, now controls an echinacea tincture which is being sold there as an OTC drug at grossly inflated prices. The same is true of ginkgo and many other herbs. Only one government controlled pharmacy has the right to import supplements as medicines which they can sell to health food stores, convenience stores, or pharmacies.

According to Dr. Matthias Rath, researcher and author who discovered a correlation between vitamin C deficiency and heart disease, the three Nazi-linked drug companies pushing so hard for

the German proposal - Hoechst, Bayer and BASF - are also manufacturers of heart drugs. Obviously, with the vitamin competition gone, nothing will stop their profits.

The Spies Among Us

"HPB is interested in receiving any information for purposes of following up on any firms that continue to sell or distribute DHEA in violation of the Food & Drug Act and Regulations".

-D.W. Shelly, Chief, Drug & Environmental Health Inspection Division.

HPB Chief Shelly is asking you to report any of your colleagues obstinate enough to sell DHEA. This sort of unpaid spy work was a favorite tactic of totalitarian regimes like the Nazis before WW II and the Communists before the Berlin wall came down. How economical!!

About a month ago, I was asked by Alive magazine to write an article about Codex. At the time, Rhody Lake, editor of Alive was told by representatives of both the HPB and the CNHPA (Canadian Natural Health Products Association) that Codex was not a threat to public access to natural health care products.

The facts do not support this belief. While the CNHPA says that it works on behalf of the natural products industry, it appears to support the HPB's removal of products from health food store shelves.

For example, in an Oct. 9, 1996 press release, the CNHPA said, "In light of the recent crackdown by Health Canada on the sale of the hormone, melatonin, in health food stores, the Association recommends that stores cease the sale of DHEA immediately."

Is the CNHPA in collusion with the HPB? Their actions seem to indicate that. So do their words: "...the Supplement Manufacturers' Committee is in almost daily negotiations with Health Canada in the area of regulatory affairs and working, with some success, toward special recognition..." What success? The reality is that these "daily negotiations" have been a dismal failure, making public access to health products worse than at any time in the history of Canada. According to John C. Hammell, legal advocate for the U.S. based Life Extension Foundation, the Nazi-linked proposals have the backing of Canadian and French Codex commission representatives.

In June of 1996, the Codex Executive committee created an "expert panel" on herbs which was expected generate a "negative list" to prevent public access to certain herbs internationally. The formation of this "expert panel" was advocated by none other than the Canadian and Australian representatives.

During the October 1996 Bonn, Germany Codex discussions only the United States and the United Kingdom voted against such a list and against limiting other supplements to a maximum international RDA.

Why then are the HPB and the CNHPA denying that the Codex proposals will have any impact on the availability of nutritional supplements in Canada? Either spokespersons for these two groups are ignorant about the proposals or they are lying to the public in order to protect drug company interests. After all, several voting member companies of the CNHPA are owned by or are subsidiaries of major drug manufacturers or pharmaceutical chains.

Neither group can be trusted to give the public straight answers about the Codex scam when, in fact, they are a part of the group trying to outlaw melatonin, DHEA, Kava kava, amino acids, and

several dozen herbs. Some members of the CNHPA are in a clear conflict of interest since they stand to gain financially when the supplement prices are boosted through the roof. It should be noted that the CNHPA was formerly called the Canadian Health Food Association. Did changing its name have anything to do with drug company wishes? Further evidence of Canadian involvement with Codex is the HPB position on what is or is not a food or a drug. For example, garlic, ginger, licorice, and peppermint are considered to be foods when sold as spices. If a grocery store manager makes claims for their therapeutic effects, they then become drugs via a hocus pocus mechanism which still remains to be defined. Perhaps one of the drug owned supplement firms that are members of the CNHPA can explain how this occurs.

If Codex and the HPB have their way, your favourite supplements will be replaced by expensive, patented, over-the-counter or prescription drugs. Just look what has already happened to amino acids like tryptophan. Once available for under \$20 for a bottle of 100 tablets of 500 mg at your local health food store, the same tablet is now only available by prescription at a cost of over \$120 by prescription.

For more information, documentation, and a plan of action that

you can take to fight the Government(s)/Codex Connection,
contact:

Canada:

Write or phone your federal MPs and make them aware of
the situation and how you feel about it. If you do
not know who your federal representative is, phone
1-800-282-8060 (in Manitoba), or 1-800-667-3355
(everywhere else in Canada). No postage is required for
letters sent to MPs while parliament is in session.

Also write to the Honourable David Dingwall, Minister
of Health, Health Canada, Brooke Claxton Building, Room
091-6A, Tunney's Pasture, Ottawa, ON K1A 0K9.

Canadian Natural Health Products Association

Suite 205 - 550 Alden Rd, Markham, ON L3R 6A8

Phone: (800) 661-4510, (905) 479-6939

fax: (905) 479-1516

Start a chain letter, creating a cover letter stating

"Make ten copies of this cover page and newsletter,
send it to 10 people locally or around the world.

Continuing this chain letter will bring you more than

just luck, it will help save our God given right to
health freedom and access to natural and safe
supplements World wide."

U.S.A.

John Hammell

Legislative Advocate

The Life Extension Foundation

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e-mail: John@lef.org

Everyone:

Phone, fax, E-mail, write as many natural health
supplement manufacturer/distributors and make them
aware of your views and ask them to also represent you.

Look under health foods or vitamins in your local
yellow pages and/or go to a library to find other phone
books to locate out of town companies or ask your local
health food store to supply you with addresses.

Boycott all Hoechst, Bayer, and BASF products. Write to

them and tell them your views.

Please help protect your right of access to natural products. The entire planet is counting on it!

Here are less serious versions being implemented of the same above procedures, but now in England:

UK THREAT TO HERBAL MEDICINES

The Department of Health (DoH) is planning to implement a European Directive which is likely to lead to the removal of many herbal products from shops, cut off supplies to practising herbalists and put herbal companies out of business. This change is being rushed through by the UK government before the end of 1995.

EUROPEAN DIRECTIVE

Officials from the DoH met with members of the herb industry on 21 September 1994 to say that their lawyers had just discovered that Section 12 of the 1968

Medicines Act was out of step with a European Directive (65/65) due to come into force at the beginning of 1995. The DoH would be seeking immediate repeal of Section 12 which gives herbal practitioners and companies the right to supply herbal medicines without a medicines licence. This legislation was passed after considerable public and parliamentary debate and reflects rights of practice going back to the Herbalists Charter of 1543.

DESTRUCTION OF HERB INDUSTRY

Dried or fresh herbs would still be available but processed herbs including tinctures, pills, concentrates, capsules and ointments would all require a licence. Since a medicines' licence costs 84,000 alone for administrative fees and as plants cannot be patented there is no chance of herbal suppliers recouping their costs. Food law does not apply as European law defines a medicine as anything which can be demonstrated to have a medicinal or

physiological effect. The effect of Directive 65/65 will be the destruction of the herb industry and hence the rights of people to have access to traditional and natural medicines.

CHANGES TO BE RUSHED THROUGH

Other European governments are not implementing this Directive and the German government has voted for a 10 year delay before implementation. The US government has just recently reversed legislation so that herbs and vitamins can be sold freely.

In Australia there is a Traditional Medicines Evaluation Committee with representatives of practitioners, suppliers and scientists which applies different criteria for traditional herbal remedies to those used for conventional drugs. Until last month herbalists in the UK have been consistently assured that their rights under the Medicines Act would be unaffected yet the DoH is now rushing through these changes.

LICENSING OF HERBALISTS

A Herbal Practitioners Alliance has been formed in the UK with membership of the National Institute of Medical Herbalists and other practitioner bodies. The HPA has already started to meet with the DoH to find ways of formalising the high standards of training and practice which have been established for herbalists here. Such responsible initiatives towards licensing of herbalists make no sense if the DoH is to encourage the decimation of herbal practice and the herb industry.

WHAT YOU CAN DO

Meanwhile there is lots to be done to stop the threat to herbal medicines. Please pass on this information to your friends and relatives - anyone who uses herbal remedies or might want to at a future date.

Can you write urgently to your MP and
MEP and make the points above and ask

- why the rush?
- what about consultation?
- what about patients rights to choose
natural medicines?

Thank you for your help

Anne Stobart, NIMH

Consultant medical herbalist

21 Dean Street, Crediton, Devon EX17 3EN

The case is becoming even harder now. Many supplements that have been standard for our health are now classified illegal, and what will happen to you if you have them, is not pleasant, as you will see, from those who have been raided and held at gun point for 12 hours, including the elderly.

SUPPLEMENTS AT RISK FROM THE FDA

The FDA's battle against natural and alternative health care could produce the following casualties:

All Free Form Amino Acids:

These essential nutrients would be eliminated from the market to
be studied for "safety" and then handed over to medical

pharmaceutical corporations to be made into highly expensive prescription-only drugs. Amino acids have been safely used by consumers for over 20 years. The ban would include N-acetyl cysteine (NAC) which is very promising in treatment for HIV and has been used successfully to treat bronchitis.

Selected Herbs:

Many immune-boosting herbs and treatments for HIV and cancer may be eliminated. All medicinal herbs are in jeopardy because the FDA has never granted "generally recognized as safe" (GRAS) status to any herbs used as medicines. Garlic, for example, is recognized as safe when it is in food or as a flavor enhancer. But garlic as a food supplement in a capsule or extract is not GRAS and is therefore subject to FDA restrictions. Again, ALL medicinal herbs are not recognized GRAS. The FDA can remove any herb from the market which is in any way associated with health claims.

All Medicinal Claims For Herbs:

Since medicinal herbs cannot exist without claims, and claims put an herb in the "unapproved drug" category, the FDA could and would effectively *censor* much information regarding herbal treatments.

Consumers would be denied access to products and information.

Since the FDA has little respect or understanding for traditional

ethnic herbal treatment and folk remedies, the agency's judgement with regard to the regulation of claims for products that have been safely used for hundreds of years is suspect.

Breakthrough and "New Supplements":

As research mounts on newly emerging nutrients, natural compounds, and herbs, promising treatments are denied to consumers because the FDA does not understand that which it regulates. Products which could be benefitting millions of people may become unavailable because the FDA insists on defining these new products as "unapproved food additives" or "unapproved drugs."

Cutting Edge Supplements in Jeopardy:

Co-enzyme Q10 All chinese herbs

Evening Primrose Oil Golden Seal Root

Black Currant Oil Selenium

Chromium

This is what we have already lost:

Chaparral Comfrey Stevia

L-Tryptophan Sassafras Pennyroyal

For more information, contact:

Citizens For Health

Natural Health Care Alliance Of San Francisco

1348 La Playa Avenue #2, San Francisco CA 94122

Telephone Michael at 415-292-4055

For those that offer viable solutions to cancer and the other multiple generated or amplified diseases due to the intentional insertion of chemicals and other deliberate factors, are discredited, and even eliminated. The Health industry is attacked and raided, and treated like criminals. The smallest victory here is soon smugged under the rug by ever more attacks and stories of failed hope alternative cases, when chemotherapy, and other medicinal drugs small percentage is never even whispered at, unless the new medicine arrives - costing lots, and bringing in reams of money. Here follows the clear evidence of A CORPORATE MEDICAL STATE, where health Professionals are raided, for the unsafety of things like blackcurrants OR VITAMIN E. Our fellow human beings, who were just trying to serve and help others, were subjected to guns, intimidated, smashed offices by the raiding troops, and loss of files. Hard to believe in this day and age, a silent war is harder to see - but these episodes are far from silent, only by manipulation of press. See for yourself.

THE FEDERAL DRUG ADMINISTRATIONS CRIMINAL RAIDS

ON THE HEALTH INDUSTRY

(A list of FDA raids From Life Extension Magazine)

...The FDA's strong arm tactics are used to intimidate and terrorize Americans into toeing their police state party line on healthcare and medicine. The FDA's purpose is not just to destroy the business and lives of their targets but also to spread fear and terror throughout the land so that others who may be tempted to rebel against the agency will remain meek and submissive.

We urge you to let the FDA know how outraged Americans are at their gestapo like raids. Call, write, or fax the seven FDA officials listed at the end of this article. We've included the FDA's Chicago office because they've been illegally seizing products ordered by Americans from offshore companies.

When you voice your protests to these FDA officials, you can now do more than just complain about the FDA's brutality, you can tell them to obey the law! As discussed in the enclosed issue of Life Extension Report, the new dietary supplement health and education act demands that the FDA give anyone who they wish to take enforcement action against at least 10 days notice and opportunity to present their views, before taking action.

The FDA may be willing to ignore the constitutionbut they may still be threatened by a law passed in 1994.

(Some of the information they printed on these raids are as follows):

Raid: Traco Labs, Inc. - November, 1988

Address: 205 S Main St. Seymour, IL 61875

Phone: 1 (217) 687-2800 - Sid Tracy , President

Reason: FDA claimed that black currant oil was an unsafe food additive.

Outcome: FDA seized two drums of black currant oil as well as a large quantity of the capsulized product. On Jan. 28, 1993, the U.S. Court of Appeals ruled against FDA. The judge said that FDA's definition of food additive is too broad that even water added to food would be considered a food additive.

Raid: Pets Smell Free, Inc. - Summer, 1988

Address: 350 W. 300 South, Salt Lake City, Utah 84101

Phone: 1 (801) 322-1221, Email Magnum@UTW.com - Mark Geiger

Reason: product designed to prevent pets from giving off foul odor. (also sold for fishtanks) FDA called it an unsafe, unapproved drug.

Outcome: Seized entire inventory and business records. PSF won in court several times but in July, 1994 FDA won on appeal, FDA wants PSF to sign consent decree but they have refused.

Raid: The Life Extension Foundation - Feb 26, 1987

Address: PO box 229120, Hollywood, FL 33022

Phone: 1 (800) 333-2553 - John Hummell, Political Office

Reason: FDA alledged LEF was selling unapproved drugs (vitamins in U.S.) and life extension drugs from overseas

companies.

Outcome :FDA seized \$500,000 worth of vitamins, computers, files, newsletters, personal belongings, phones ripped out of the walls, and terrorized employees. The foundations leaders, Saul Kent and William Faloon, were indicted on 28 criminal counts (with Maximum prison time of 84 years in November, 1991. Case is still pending.

Raid: Highland Labs - Fall, 1990

Address: Box 199 Mt. Angel, OR 97362

Phone: 1 (800) 547-0273 - Candy Scott

Reason: FDA claimed that product literature (with False claims) was being shipped with products to customers. FDA said these made COQ10 and GeOXY 132 unapproved drugs.

Outcome: After spending \$250,000 in legal fees, defendant was forced to, plead guilty to selling unapproved new drugs.

Six months house arrest. \$5,000 fine.

Raid: Hospital Santa Monica - May 12, 1993

Address: 738 Design Ct., Chula Vista, Ca. 91909

Phone: 1 (619) 662-3010 - Kurt Donsbach

Reason: Hospital Santa Monica is an alternative cancer hospital in Mexico that competes with mainstream hospitals

in the U.S. They were accused of distributing unapproved drugs. More than 50 federal agents with guns drawn raided the hospital office in San Deigo, seizing a tractor trailer of business records, patient charts, and computers. They also searched employees homes and seized \$80,000 found in the owners safe. Over \$300,000 was taken from the bank accounts of hospital and two vitamin companies.

Outcome: Friends kept the Hospital afloat with cash gifts.

The two vitamin companies were sold at a loss. Donsbach was forced into bankruptcy. No charges have been filed.

Raid: Natures Way - June 30, 1992

Address: 1375 N. Mountain Springs Parkway, Springville, Utah
84663

Phone: 1 (800) 962-8873

Reason: The FDA seized a quantity of evening primrose oil, both encapsulated and in bulk from this large manufacturer during a routine inspection. They also seized a truckload of primrose oil on the road. The FDA claimed it was an unapproved food additive.

Outcome: Nature's Way filed a lawsuit to get their product back, but was forced to remove the vitamin E from it because the FDA asaid that Vitamin E has not been approved as a food

additive for evening primrose oil.

Raid: Family Acupuncture Clinic - Aug. 14, 1992

Address: 117 Granada, San Clemente, CA 92672

Phone: 1 (714) 361-3976 - Richard Lee, Ph.D., Director

Reason: FDA seized \$15,000 worth of Hsaio Yao Tea Pills in an attempt to strike back at acupuncturists who are taking a lot of business away from conventional Drs. FDA ignored California law, under which acupuncturists are licensed to practice medicine. FDA also ignored the fact that many insurance companies honor claims for acupuncture including Aetna, Prudential, and Blue Cross.

Outcome: The seized herbs were shipped back to China by the FDA after they had rotted. Dr. Lee is still in business.

Raid: Bursynski Research Clinic - Jul. 7, 1985

Address: 1200 Richmond Ave. #260 Houston, TX 77082

Phone: (713) 597-0111 - Dean Mouscher

Reason: Interstate shipping of antineoplastins (cancer therapy) NCI, Aetna insurance and others pressured FDA into raiding The Bursynski clinic.

Outcome: FDA seized 200,000 medical and research documents forcing Burzynski to pay to make copies. No charges were

filed.

Raid: Solid Gold Pet Foods - Sep., 1989

Address: 1483 N. Cuyamaca, El Cajon, CA 92020

Phone: (619) 465-9507 (Sissy Harrington McGill, Owner)

Reason: FDA had been harassing McGill over labels on her holistic pet food products. In March 1990, an FDA agent seized products from her store without a search warrant and shut down her store. On July 12, 1990, after being indicted, she chose a jury trial. Upon appearing for her trial, she was clapped into leg irons, put into a Maximum Security Federal Prison for 179 days, and fined \$10,000. While incarcerated she suffered a near fatal stroke.

Outcome: McGill sued the Department of Justice and won a victory on Feb. 20, 1992. She expects to file a \$25,000,000 lawsuit against the FDA.

Raid: H.A. Lyons mailing Service - Oct. 16, 1990

Address: Driven out of business. Formerly in Phoenix, AZ

Reason: Mailing literature on behalf of vitamin companies with no advance warning, 5 armed agents backed by an armed policeman raided this home-based business run by a young woman.

Outcome: The owner convinced the agents not to seize her checkbook and cash. They did seize all her business records and literature. No charges were filed.

Raid: Nutricology, Inc. - May 9, 1991

Address: 400 Preda Ave. San Leandro, CA 94577

Phone: (800) 545-9960 Stephen A. Levine, Ph.D. owner

Reason: FDA raided Nutricology, seized their bank accounts and shut them down for 2 days, charging them with wire fraud, mail fraud, selling unapproved drugs, unsafe food additives, and misbranded drugs. Twelve armed agents conducted an exhaustive search of the company's offices and warehouse.

Outcome: On May 23, 1991 Federal Judge D. Lowell Jensen denied the FDA's request for a Preliminary Injunction. On Sep. 10, 1991, the FDA appealed to the 9th Circuit Court of Appeals, but was again denied. On Sep. 23, 1993 Judge Jensen denied the FDA's motion for summary judgement and granted Nutricology's motion to eliminate the wire and mail fraud charges.

Raid: Scientific Botanicals - Fall 1991

Address: 8003 Roosevelt Ave. NE 98115

Phone: (206) 527-5521

Reason: Alleged labeling violations. FDA seized herbal extract products and literature sent to physicians. FDA forced the company to stop using its patented trade names lest they "mislead the consumer."

Outcome: FDA slowly released all seized products, forcing the company to comply with all demands under threat of being shut down. Company refuses to talk about their case for fear of reprisal.

Raid: Thorne Research - Dec. 12, 1991

Address: 901 Triangle Dr. Sand Point, Idaho 83864

Phone: (208) 263-1337, Al Czap, Owner

Reason: FDA claimed that vitamin products sold by company were "unapproved drugs." FDA agent and 3 U.S. Marshall's seized the company's entire stock of \$20,000 worth of products and 11,000 pieces of literature intended for physicians.

Outcome: Thorne initially notified District Court that it would fight, but gave up as the expiration date on the seized products was approaching and it became too expensive to continue. The company no longer publishes any literature.

Raid: Tahoma Clinic, Dr. Jonathan Wright - May 6, 1992

Address: 24030 132nd Ave. S.E. Kent, WA 98042

Phone: (206) 631-9681, Harry Mills, P.R.

Reason: After L-tryptophan was banned, Dr. Jonathan Wright continued to prescribe it. The FDA raided him and seized his supply of tryptophan. Dr. Wright filed suit. The FDA retaliated by storming into Wright's clinic with armed sheriffs who terrorized employees and seized vitamins and other natural therapies, allergy screening equipment, computers, bank records, his mailing list, and medical records.

Outcome: In Oct. 1992, Wright filed suit in district court charging unlawful search and seizure and demanded his property back. In response, the FDA convened a Federal Grand Jury and subpoenaed Wright's clinic records. No charges have yet been filed.

Raid: Ye Seekers - June 1992

Address: 1221 Blalock, Houston, TX 77055

Phone: (713) 461-0857 (Matt Malick, Vitamin Supervisor)

Reason: In Feb. 1992, Texas health authorities acting under the direction of the FDA seized 50 products from several health food stores in Texas including Ye Seekers. Then in

June, they seized more than 250 products including aloe vera, zinc, flax seed oil, herb teas, vitamin C and coenzyme Q-10.

Outcome: Although more than 410 products were seized, the stores haven't filed suit for fear of reprisals. Ye Seekers noted that Ginsana was seized from them at the same time it was being advertised on the Larry King TV show.

Raid: Mihai Popescu - June 2, 1992

Address: Out of business - owner in Metro Detention Center in LA.

Phone: (213) 933-6825 (wife) Leave message.

Reason: FDA claims that Gerovital (GH-3), which Popescu was selling, is an "unapproved drug." Eight FDA and customs agents raided Popescul's house with guns drawn, holding his 8-month pregnant wife and 83 year old grandfather at gun point for 10 hours.

Outcome: They seized his computer and business records and \$5,000. worth of GH-3. Popescu has been in prison for 8 months and expects to be released in 3 months.

Raid: Natural Vision International (NVI)

Address: Driven out of business - formerly in Manitowoc, WI

Phone: Talked to an administrator at Holiday House at (414) 682-4663

Reason: Opticians and ophthalmologists pressured FDA into an armed raid of NVI with two federal marshals to seize 17,000 pairs of pinhole glasses, which exercise and strengthen the eyes. The charge was that NVI had failed to file a premarket application with FDA. NVI notes that a pinhole is not a lens.

Outcome: Despite the fact that NVI submitted hundreds of testimonials from satisfied customers, the FDA drove them out of business by not returning their stock of over \$200,000 worth of pin hole glasses.

Raid: Kirwin Whitnah - May 12, 1993

Address: Driven out of business. Formerly in Middletown, CA

Phone: (707) 928-1915

Reason: Whitnah was promoting the sale of deprenyl. The FDA considered this "selling an unapproved drug." His house was raided at gun point when he wasn't home, terrorizing a woman staying at the house. They found no deprenyl. They seized his computer, business records, mailing list, literature, and \$4,500 in money orders.

Outcome: No charges were filed, but Whitnah was driven out

of business.

Raid: Waco Natural Foods - May 14, 1993

Address: 1424 Lake Air Dr. Waco TX 76710

Phone: (817) 772-5743 (Tom Wiggins)

Reason: The FDA was looking for deprenyl citrate, a non toxic supplement. They entered the store with a search warrant wearing plain clothes. They searched for 4 hours and seemed most interested in possible links to businesses in the Seattle area.

Outcome: As soon as Mr. Wiggins, the owner, told the FDA his attorney was a well known defender and prior District Attorney in the WACO area, they apologized for the raid and left with some documents. No charges were filed and the store hasn't been raided since.

Raid: International Nutrition Inc - Jun 24 1993 and Aug. 3, 1993

Address: PO Box 1644 Santa Theresa, NM 88008

Phone: (800) 535-6442 (G.S. Odin)

Reason: Alleged "misbranding" of "illegal drugs" led 5 FDA agents, a Federal Marshall, and a PR specialist to enter with video cameras (instead of guns) in an effort to prevent a public backlash. FDA seized \$1,000,000 worth of vitamin

raw materials and products formulated by Dr. Hans Nieper of Germany. Also seized were computers and business records.

Outcome: INI has lost 80 percent of its business since the raid and had to lay off 80% of its work force. No court date has been set.

Raid: Zerbo's Health Food Store - May 1993

Address: 34164 Plymouth Rd., Livonia, MI 48150

Reason: Reason for the raid was the alleged distribution by 78- year-old Mr. Zerbo of GH-3 to special customers. Armed U.S. Marshall's and FDA agents cleaned off shelves of coenzyme Q-10, selenium, carnitine, and GH-3. Mr. Zerbo and his daughter Claire, who manages store, were indicted on charges of "illegal drug trafficking."

Outcome: Claire Zerbo wanted to fight her indictment, but chose not to do so because the FDA threatened her aging, 78-year-old father who has Parkinson's Disease with 7 years in prison. Because of her fear that her father would die in prison, they both pleaded guilty. Claire will likely receive 3 months probation. Her father is unlikely to go to prison for more than 4 months.

November 15,1994 life extention magazine)

In 1993, the FDA announced that your right to purchase coenzyme Q10, selenium, amino acids, herbals and high potency vitamins would be taken away by the end of the year. Twenty-four million Americans (including many of you) responded to the FDA's threat by inundating Congress with letters, faxes and phone calls that caused the FDA to back away completely from its proposed ban on importation of these disease-preventing nutrients.

When you voice your protests to these FDA officials (and Congress), ...you can tell them to obey the law..., the new Dietary Supplement and Education Act requires that the FDA give anyone who they wish to take enforcement action against at least 10 days notice and the opportunity to present their views before taking action.

Raymond Mlecko, District Dir.,

FDA Chicago District Office 312-353-5863; Fax: 312-886-3280

Jerome Bressler Compliance Dir.,

FDA Chicago District Office 312-353-7382; Fax: 312-886-3280

David Kessler, FDA Commissioner 301-443-2410; Fax: 301-443-3100

Mitch Zeller, Special Assistant

For FDA policy 301-443-5004; Fax: 301-594-6777

Gary Dykstra, FDA Deputy Assoc.,

Comm. for regulatory Affairs 301-443-2894; Fax:301-443-9767

Jim O'Hara, Assoc. Comm.

For Public Affairs 301-443-1130; Fax: 301-594-6004

Now that we have seen the present state of affairs in attempting to eliminate our awareness of nutrients for real solutions, let us embark on the easily available supplements, with which even some of the most drastic cases can be aided. Let us make sure that this knowledge is never lost, and continue to bridge to those who may require this knowledge, and yet do not know. Further, breaking down our knowledge, all the way upto the point where we can utilise the elements around us to make these very remedies, should civilisation as we know it, collapse. As you will see some of this basic information is also included in the following compilations:

THE H2O2 OXYGEN SOLUTION

Hydrogen Peroxide Therapy

contents:

- * What is Hydrogen Peroxide?
- * How is Hydrogen Peroxide produced in nature?
- * How else is Hydrogen Peroxide made?
- * What grades of Hydrogen Peroxides are there?
- * What are people using Hydrogen Peroxide for?
- * Are the stabilized oxygen products as good as drinking dilute solutions of H₂O₂?

- * Where can I find Hydrogen Peroxide (H_2O_2)
- * Are there storage and transportation guidelines of Hydrogen Peroxide that I should be aware of?
- * Should I store my Hydrogen Peroxide (H_2O_2) in the freezer?

WHAT IS HYDROGEN PEROXIDE?

Hydrogen peroxide is H_2O_2 . You can think of it as water (H_2O) with an extra Oxygen atom (O1).

How is Hydrogen Peroxide produced in nature?

Hydrogen Peroxide is created in the atmosphere when ultraviolet light strikes oxygen in the presence of moisture. Ozone (O_3) is free oxygen (O_2) plus an extra atom of oxygen. When it comes into contact with water, this extra atom of oxygen splits off very easily. Water (H_2O) combines with the extra atom of oxygen and becomes hydrogen peroxide (H_2O_2).

How else is Hydrogen Peroxide made?

- * Chemically - treat Barium Peroxide with Sulfuric Acid. Barium Sulfate settles to the bottom and Hydrogen Peroxide is drained off. (To concentrate, it is vacuum distilled.)
- * Treat water with ultraviolet light.
- * Electricity - silent, or open spark methods.
- * Bubble Ozone (O_3) through cold water.

What grades of Hydrogen Peroxides are there?

3% Hydrogen Peroxide (Drug/Grocery Store Variety)

Made from 50% Super D Peroxide, Diluted. Contains stabilizers - phenol, acetanilide, sodium stannate, tetrasodium phosphate among them.

6% Hydrogen Peroxide (Used by Beauticians for Coloring Hair)

Comes in strengths labeled 10,20,40 volume. Must have activator added to be used as a bleach. Stabilizers used unknown at this point.

30% Re-Agent Hydrogen Peroxide

Used in medical research. Also contains stabilizers.

30-32% Electronic Grade Hydrogen Peroxide

Used for washing transistors and integrated chip parts before assembly.
Stabilizers unknown at this point.

35% Technical Grade Hydrogen Peroxide

Contains a small amount of phosphorus to neutralize any chlorine in the water it is combined with.

35% Food Grade Hydrogen Peroxide (Also 50% Food Grade H₂O₂)

Used in food products like cheese, eggs, whey products. Also used to spray

inside of foil lined containers for food storage - known as the aseptic packaging system.

90% Hydrogen Peroxide

Used by the military as a source of Oxygen at Cape Canaveral. Used as a propulsion source in rocket fuel.

99.6% Hydrogen Peroxide

This was first made in 1954 as an experiment to see how pure a hydrogen peroxide could be manufactured.

What are people using Hydrogen Peroxide for?

Food Grade (35%) Hydrogen Peroxide can be used in many different ways to introduce oxygen into the body. Some of these include:

- * bathing in dilute solutions of it
- * drinking dilute solutions with distilled water
- * spraying dilute solutions on your body after a hot shower
- * gargle with it
- * doctors are injecting dilute solutions of it into their patients using

IV

Are the stabilized oxygen products as good

as drinking dilute solutions of H₂O₂?

This is a very difficult question to answer. The stabilized oxygen producers are very protective of their secrets, so we the consumer have no real way of following up on their claims. Many say their product compares to 20 drops of H₂O₂. When information is forthcoming from the manufacturers as to how they substantiate their claims, this answer will be expanded.

By far, the stabilized oxygen products are more palatable, but they are also much more expensive. Most people that have taken the products say they feel the difference. Most are those that can no longer stomach the taste or stomach upsets that are often associated with oral consumption of hydrogen peroxide.

Mike Davis, who is a member of the OyxTherapy Mailing List did a comparison using SuperOxy, Genesis 1000, and 35% Hydrogen Peroxide. See the results below. Mike also updated this information on April 14, 1996 in OxyFile 360.

I have recently received some Quantofix peroxide test strips manufactured by Macherey-Nagel from H₂O₂, Inc. They give a color indication of peroxide concentration from 0-100 ppm. The test strip is said to also be sensitive to organic and inorganic peroxides.

Sample Dilution Reading

SuperOxy Plain 1 ml:100 ml 10ppm(-)

Genesis 1000 1 drop:100 ml 10ppm(+)

35% H2O2 1 drop:150 ml 100ppm(+)

1 ml above:10ml 10ppm(+)

The SuperOxy is said to have twenty drops of 35% H2O2 per ounce, the 1 ml sample should contain about .7 drop. The 35% was diluted with 150 ml water to adjust for the drop amount. It still had to be diluted another ten times to bring it into the range of the SuperOxy. The Genesis dilution was not adjusted for drop size which might account for a slightly higher reading than the SuperOxy. OxyToddy came out to 0 ppm at full strength.

I calculated the dilution of 35% to be 12ppm which agrees well with the test figure.

This seems to indicate that in terms of peroxide activity as measured with this technique 35% H2O2 is easily ten times stronger than either SuperOxy or Genesis 1000.

Where can I find Hydrogen Peroxide (H2O2)

* You can try to locate someone in your area on the H2O2 Sources Page in Oxytherapy.com.

* You can check at your local health food store - they may carry it.

* You can contact either Crossroads or The Family News and they will

ship some to you wherever you are located.

* You can look in the yellow pages and look under chemical companies to see if they carry it. Many chemical companies sell it (varying grades) in large containers. If you plan on bathing in it, you will find this the least expensive way means.

Are there storage and transportation guidelines of Hydrogen Peroxide that I should be aware of?
Absolutely. In the Oxyfiles Area, the ECHO Newsletter has many suggestions, as well as the following Oxytherapy Mailing List has discussed it in the following messages:

* <http://www.oxytherapy.com/mail-archive/jul96/211.html>

* <http://www.oxytherapy.com/mail-archive/jul96/212.html>

* <http://www.oxytherapy.com/mail-archive/jul96/223.html>

* <http://www.oxytherapy.com/mail-archive/jul96/226.html>

* <http://www.oxytherapy.com/mail-archive/aug96/12.html>

Oxidative Therapy

(Hydrogen Peroxide Therapy Part 2)

- What is Oxidative Therapy?
- What Chemicals are used in Oxidative Therapy?
- Is this a new form of Therapy?
- How does it work in the body?
- What has it been used to treat?
- How do I know if I would benefit from Oxidative Therapy?
- How is this therapy given?
- What about the safety or side effects of this therapy?
- Is this therapy expensive?
- Does Insurance pay for Oxidative Therapy?
- Can my Physician administer this therapy?
- How do I locate a Physician trained in Oxidative Therapy?

What is Oxidative Therapy?

Most biochemical reactions in the body are 'Balanced' through 'Redox' mechanisms. Redox means (Red)uction (Ox)idation. Chemically, anytime a substance is reduced (chemically changed) something else must be oxidized (chemically changed the other way) for your body to stay in balance. Oxidation, as an example, is the process which causes 'rust' on metals (slow oxidation) or fire (rapid oxidation). In the body, some types of oxidation is thought to be harmful (produces Free Radicals). We even suggest people take Vitamin E (anti-oxidant) to help reduce Free Radical formation. We know however, there could be no life if certain types of

oxidation did not occur. The body uses oxidation as its first line of defense against bacteria, virus, yeast and parasites. Even breathing OXYGEN is an oxidative process. Without oxidation we die very quickly. Without OXYGEN for more than a few seconds, serious consequences follow. Natural chemicals, found in the body, are used in 'OXIDATIVE THERAPY' to encourage healthy oxidation in the cells and tissue.

What Chemicals are used in Oxidative Therapy?

A number of substances are known to cause oxidation in the body but the most important of these is Hydrogen Peroxide. Hydrogen Peroxide, when exposed to your blood or other body fluids, containing the enzyme 'Catalase', is chemically split into OXYGEN and water. Remember how Hydrogen Peroxide foams when you put it on a wound? The foam is OXYGEN being produced by the action of catalase on the Hydrogen Peroxide. A small amount of Hydrogen Peroxide can supply large amounts of OXYGEN to the tissue.

Is this a new form of Therapy?

Injections of Hydrogen Peroxide are nothing new. It was first reported by Dr.T.H.Oliver in the British Medical Journal (Lancet) in 1920. Patients with influenzal pneumonia were treated with Hydrogen Peroxide infusions with very good results. The use of Hydrogen Peroxide injections, to generate OXYGEN in the body, have been studied at many

major medical research centers throughout the world. Research reports have come from Baylor, Yale, Harvard, UCLA, Boston, England, Japan, Germany, Sweden, Russia, Canada, Nova Scotia and others. Today, between 20 and 50 scientific articles are published each month about the chemical and biological effects of Hydrogen Peroxide. More recently the "Therapeutic Use of Intravenous Hydrogen Peroxide" was reported by Dr. C.H. Farr at an International Medical Symposium in Czechoslovakia attended by representatives from 26 different countries. Oxidative Therapy, introduced by Dr. Farr, is the rediscovery of an old treatment first reported almost 70 years ago.

How does it work in the body?

There are many theories about the function of Hydrogen Peroxide in the body and a great deal of scientific material supports almost every one. Hydrogen Peroxide is produced in the body in different amounts for different purposes. It is part of a system which helps you use the OXYGEN you breathe. It is part of a system which helps your body regulate all living cell membranes. It is a hormonal regulator, necessary for your body to produce several hormonal substances such as estrogen, progesterone and thyroid. It is important in the regulation of blood sugar and the production of energy in all cells. It helps regulate certain chemicals necessary to operate the brain and nervous system. It is used in the defense system of the body against infections and has been found to be

important in regulating the immune system. Scientists are discovering the function of Hydrogen Peroxide in the body is far more complex and important than previously realized.

What has it been used to treat?

Oxidative therapy, using Hydrogen Peroxide, has been reported in the scientific literature* and by physicians in the treatment of the following conditions or diseases with varying degrees of success.

(*References available to professionals on request from IBOM)

Heart and Blood Vessel Diseases

- Peripheral Vascular Disease (poor circulation)
- Cerebral Vascular Disease (stroke and memory)
- Cardiovascular Disease (heart disease)
- Coronary Spasm (Angina)
- Cardioconversion (heart stopped)
- Heart Arrhythmias (irregular heart beat)
- Gangrene of Fingers and Toes
- Reynards Syndrome
- Temporal Arteritis
- Vascular and Cluster Headaches

Pulmonary Diseases

- Chronic Obstructive Pulmonary Disease (lung)
- Emphysema (lung disease)
- Asthma (allergy, lung)
- Bronchiectasis
- PCP (Pneumonia in AIDS)
- Chronic Bronchitis

Infectious Diseases

- Influenza
- Herpes Zoster (shingles)
- Herpes Simplex (fever blister)
- Systemic Chronic Candidiasis (Candida)
- Chronic Fatigue Syndrome (Ebstein-Barr Virus)
- HIV (AIDS) Infections
- Acute and Chronic Viral Infections
- Chronic Unresponsive Bacterial Infections
- Parasitic Infections

Immune Disorders

- Multiple Sclerosis
- Rheumatoid Arthritis
- Diabetes Mellitus Type II
- Hypersensitive Persons (Environmental and Universal Reactors)

Miscellaneous

- Parkinsonism
- Alzheimer
- Migraine Headaches
- Chronic Pain Syndromes (Multiple Etiologies)
- Pain of Metastatic Carcinoma
- Blood and Lymph Node Cancers

Physicians from around the world constantly share knowledge and experience and the list of uses for Oxidative Therapy is growing every day.

Since Hydrogen Peroxide is a natural substance produced and used in body chemistry, there will be discoveries about its importance in biochemistry for years to come.

How do I know if I would benefit from Oxidative Therapy?

Only a physician trained in the administration of Oxidative Therapy can answer that question for you. You may find your condition or illness contained in the list above. If treatment of your condition or illness has been unsatisfactory in the past you may wish to learn more about Oxidative Therapy. The IBOM Foundation can supply you with the names of recognized trained physicians in your area.

How is this therapy given?

Very weak, very pure Hydrogen Peroxide (0.0375% or less concentrations) are added to a sugar or salt water solution, the same as used for intravenous feeding in hospitals. This is given in doses from 50 to 500 mL, administered into a large vein usually in the arm. It is given slowly over a period of 1 to 3 hours depending on the total amount given and the condition of the patient. It is painless except for the very small needle stick. Treatments are usually given about once a week in chronic illness but can be given daily in patients with acute illness such as pneumonia or flu. Physicians usually give 5 to 20 treatments, depending on the condition of the patient and the type of illness, The patient is rechecked in 1 and 3 months to evaluate the benefits and determine if additional treatments are indicated. Some patients, especially with chronic illness, may need to take follow up treatments, in series of 5 to 10, or may need maintaining indefinitely on a regular monthly schedule. As many as 50 treatments have been administered to several patients without complications. Your experienced physician must decide how many treatments are necessary in your individual case.

What about the safety or side effects of this therapy?

Over the past 50 years hundreds of patients have received Hydrogen Peroxide without serious side effects. Early use of Hydrogen Peroxide was reported to occasionally cause irritation of the vein being infused. This

troublesome side effect was eliminated after the concentration and rate of infusion were adjusted downward. The IBOM Foundation publishes and distributes a Protocol (How To Do It Booklet!) on the proper administration of Hydrogen Peroxide. It is available to any IBOM trained physician. A Protocol is the best way for physicians to properly learn about any new therapy.

Is this therapy expensive?

Expense is a relative term. Persons with chronic diseases pay thousands of dollars annually to physicians, pharmacies and hospitals for drugs and therapies which do little more than maintain them at their current level of sickness. If Oxidative Therapy could save you 1/2 to 3/4 of your current expenses would you consider it expensive? The expense of any therapy varies more with the type of illness than type of therapy. Persons with serious complicated illnesses require more costly tests to diagnose and monitor than less ill patients. Much of today's medical cost is in the testing rather than treatment. Don't be afraid to ask your physician, in advance, about cost.

Does Insurance pay for Oxidative Therapy?

This usually depends on your insurance company and type of policy.

Generally, however, insurance companies will not pay for medical service or care which may be classified as 'not usual and customary'. Usual and

customary simply means all physicians are providing the same service or treatment for the same disease. Obviously, the average physician is not using Oxidative Therapy and most are not even familiar with the therapy. A qualified physician can more easily answer this question on an individual basis.

Can my Physician administer this therapy?

Any licensed physician may administer this therapy. Only trained and experienced physicians however are recognized by the IBOM Foundation. Interested physicians can qualify for recognition by contacting the IBOM Foundation for information regarding training seminars.

How do I locate a Physician trained in Oxidative Therapy?

For more information contact the IBOM Foundation.

International Bio-oxidative

Medicine Foundation

P.O.Box 61767

Dallas/Fort Worth

Texas, 75261 USA

817-481-9772

Note: The Doctors & Clinics List within this site also may be consulted.

AIDS AND CANCER CURED BY HYPER-OXYGENATION

NOTE: The information presented in this article has been suppressed by the medical community for decades due to the repercussions it would have on the pharmaceutical industry. First published in 1987, by the newsletter NOW WHAT issue #1 1987. Fortunately some doctors do not feel the same as the general community and are using these processes to cure people. Please copy and redistribute this article everywhere, to meet those who need it, half-way. This is service in action.

Several dozen AIDS patients have not only reversed their death sentences, but are now back at work, completely free of the disease. They destroyed the virus in their blood by hyper-oxygenation, known in various forms as oxygen therapy, bio-oxidative therapy or autohemotherapy. This is a simple, inexpensive and very broad spectrum process that many feel could force a complete overhaul of the medical industry.

The two basic types of oxygen therapy are ozone blood infusion, and absorption of oxygen water (hydrogen peroxide) at very low concentrations.

It turns out that the AIDS virus cannot tolerate high oxygen

levels in its victims' blood. Not only that, every other disease organism tested so far has the same weakness. Even cancer growths contract and disappear when the oxygen saturation is sufficiently increased in the fluids surrounding them, since they are anaerobic.

AIDS, herpes, hepatitis, Epstein Barr, cytomegalovirus and other lipid envelope virus are readily destroyed by hyper-oxygenating the patients blood with ozone. This was demonstrated by among others Dr. Horst Kief in Bad Hersfeld, West Germany. Dr. Kief has already cured a number of AIDS victims by drawing blood, infusing it with ozone and returning it to the patient, at regular intervals until all the virus is gone. (He can be reached through Biozon Ozon-Technik GmbH, An Der Haune #10, Bad Hersfeld, D-6430, Federal Republic of Germany). Dr. S. Rilling of Stuttgart and Dr. Renate Viebahn of Iffezheim are among the growing number of physicians who have obtained similar results with their patients. They are with Arztlich Gesellschaft fur Ozonetherapie and JrJ Hansler GmbH, respectively.

THE BASIS OF BIO-OXIDATIVE THERAPIES

For many years the health sciences have been seeking to identify the primary physical cause of all diseases, and the cure-all that this basic principal would yield. Now both have been found, but their utter simplicity makes them difficult to accept at first, since it seems like if it's that easy, we should have been using them all along.

Our bodies are composed mostly of water, which is eight ninths oxygen. Most nutritional studies tend to get caught up in the small details of biochemistry and overlook our most abundant and essential element, and the fundamental role of its depletion in causing illness. Of all the elements the body needs, only oxygen is in such constant demand that its absence brings death in minutes.

The main difference, for healing purposes, between benign microorganisms (including our own cells), and those which cause disease, is that the later require much lower oxygen levels. This is due to their more primitive evolutionary origins, during the ages when free oxygen was far less abundant. Now their descendants can only survive in low oxygen environments such as accompany stagnation and decay. To become a growth medium for such parasites, one has to

have allowed the oxygen saturation of the bodies fluids to drop well below the optimum level for healthy cell growth and function.

The simplest substances available for restoring one's oxygen balance to a healthy range are ozone (O₃), and hydrogen peroxide (H₂O₂), which is much easier to obtain and use. They are both highly toxic when concentrated, which has tended to obscure their germicidal value except as a skin antiseptic. But when diluted to therapeutic levels (for H₂O₂, 1/2 of 1% or less), they are not only non-toxic but uniquely beneficial.

OZONE BLOOD TREATMENT

Ozone overcomes the AIDS virus by a fundamentally different process than usually attempted by drugs. Instead of burdening the liver and immune system with more elaborate toxic substances, ozone simply oxidizes the molecules in the shell of the virus.

The treatment is remarkably simple. The ozone is produced by forcing oxygen through a metal tube carrying a 300 volt charge. A pint of blood is drawn from the patient and

placed in an infusion bottle. The ozone is then forced into the bottle and mixed in by shaking gently, whereupon the blood turns bright cardinal red. As the ozone molecules dissolve into the blood they give up their third oxygen atom, releasing considerable energy which destroys all lipid-envelope virus, and apparently all other disease organisms as well, while leaving blood cells unharmed.

It also oxygenates the blood to a greater degree than is usually reached, what with poor air and sluggish breathing habits. The treated blood is then given back to the patient. This treatment is given from twice a week to twice a day, depending on how advanced the disease is. The strengthened blood confers some of its virucidal properties to the rest of the patient's blood as it disperses.

The disease will not return, as long as the patient maintains his blood in an oxygen positive state, through proper breathing, exercise, and clean diet.

A Dr. Preuss, in Stuttgart, has written up ten case histories of AIDS patients he has cured by this method. But his and the other physicians' reports are all anecdotal

rather than in the form of "controlled studies", since they could not be expected to treat some patients and deny treatment to others just for the purpose of accumulating evidence. Thus their results are not considered "proof" by the US medical community. So the Medizone Company in New York has taken on the task of doing the controlled studies required for the treatment to be approved in the US for general use.

MEDIZONE TESTING OZONE BLOOD TREATMENT

In the summer of 1986 Medizone obtained from the FDA an IND (Investigative New Drug) Approval for ozone, which falls under the heading of drugs even though it isn't. They verified that ozone destroys the AIDS virus in vitro, and completed their animal tests in the fall of 1986. The tests demonstrated no indication of toxicity, at ten times the equivalent amount that is proposed for human treatment.

The Medizone Co is at 123 E 54th St. Suite 2B, NY, NY 10022: phone is 212-421-0303. Medizone says that it has obtained the rights to US patent #4,632,980, on "ozonation of blood and blood products", from the company "Immunologics", in exchange for Medizone stock shares. The

patent pertains specifically to inactivating lipid-envelope virus. In humans, this includes AIDS, herpes, hepatitis, Epstein Barr virus, and cytomegalovirus, among others. Medizone obtained tentative FDA approval in April 1987 to begin human testing, but for a variety of "bureaucratic reasons" the FDA has postponed the actual start of the tests eight times now, with requests for further data, some of which had already been given to them.

Twenty months now have passed [as of December 1988], along with several thousand AIDS victims, since the first announced starting date was postponed. The Medizone staff is hoping to finally begin in the spring of 1989, but are no longer announcing expected starting dates with much confidence. "There are no technical problems, but this is the FDA we're dealing with, after all." As the Company's future hangs on their decision, no one at Medizone wants to risk antagonizing the FDA, by speculating about their actual motives for stalling such a broad-spectrum cure.

All this can be done with virtually no publicity. The official reason for is that the accepted procedure for publishing medical breakthroughs is to complete all the

tests first, even though victims may die waiting for the cautious, methodical testing procedure to run its course. No one in the industry wants to raise false hopes, let alone repeat the medical disasters that have resulted in the past, from rushing approval on new treatments.

On the other hand, the enormously expensive and dubiously effective drug AZT was widely publicized and many months before it was approved in the US, as is ongoing research into possible AIDS vaccines. In fact, FDA Commissioner Frank Young has even announced a proposal to make experimental drugs available to AIDS victims as swiftly as possible, without waiting for full FDA approval procedure to be completed. So there appears to be a severe double standard involved here. It seems that highly profitable "treatments" with serious side effects can be promoted through massive news coverage, while an actual cure, repeatedly demonstrated in Europe, with minimal cost and no apparent harmful effects, must be delayed and kept quiet while panic and deaths mount. Surely at this stage the benefits of unauthorized publicity will outweigh the risks.

SAFE PURIFICATION OF BLOOD FOR TRANSFUSIONS

Ozone infusion also provides a simple method of purifying stored blood and blood components, eliminating any possibility of disease being transmitted by transfusion. It also pre-oxygenates blood to be transfused, greatly reducing the burden on the body receiving the blood.

This application alone, of the Medizone process has enormous profit potential, and the treatment will have vast international demand as the news spreads. This has not gone unnoticed by various investment analysts. "Confidential: report from Zurich", "Penny Stock Insider" and "Low-Priced Stock Edition", among others, are urging their readers to get in on Medizone now, comparing the opportunity to getting in on Xerox, IBM, or Polaroid when they were still unknown.

Various physicians have independently discovered ozone to be also effective against cancer, leukemia, arthritis, coronary heart disease, arterial circulation disorders. colitis, gum diseases, and assorted childrens' diseases. Some of these findings have now been collected and published in the volume, "Medical Applications of Ozone", available from the International Ozone Association, 83 Oakwood Terrace, Norwalk, Ct 06850.

Some of the medical uses of ozone have been appreciated for years in Europe, Brazil, and elsewhere, as well as its advantages over chlorine for water treatment (no toxic residues, 5000 times more rapid disinfection) but its still relatively unknown in the US.

OXYGEN WATER

A much simpler type of Oxygen Therapy uses hydrogen peroxide (H_2O_2) which is what ozone (O_3) forms on contact with water.

It can be taken orally if diluted with water to 1/200 or less, absorbed through the skin by bathing in it (anywhere from 1-8 pints of 3% H_2O_2 in a standard size bathtub half full), or in severe cases it can be injected (250 cc of .075% to .15% or roughly 1/1300 to 1/650). Injections obviously require a physicians assistance, but self treatment is possible with oral and skin applications.

The principle is the same as with ozone blood treatment.

All hostile micro-organisms prefer lower oxygen levels than the bodies cells require to remain healthy. Boosting the oxygen level revitalizes normal cells while killing virus and other pathogens.

The domestic sales of hydrogen peroxide are rising at 15% per year, as the news of this option spreads at the grass roots level. The rapid expansion of the peroxide movement is especially remarkable considering there has been almost no media coverage, and in fact the FDA, American Cancer Society and other enforcers of established medicine have tried hard to discourage the practice.

Hydrogen peroxide is the only germicidal agent composed only of water and oxygen. Like ozone, it kills disease organisms by oxidation as it spreads through the patient's tissues.

This also destroys cancerous growths which are anaerobic. Nobel prize winner Dr. Otto Warburg demonstrated over 50 years ago the basic difference between normal cells and cancer cells. Both derive energy from glucose, but the normal cell requires oxygen to combine with the glucose, while cancer cells break down glucose without oxygen, yielding only 1/15 the energy per glucose molecule that a normal cell produces. This is why cancer cells have such a huge appetite for sugar, and also why people who consume excessive quantities of sugar tend to get cancer more often.

The anaerobic breakdown of glucose by cancer cells forms large amounts of lactic acid as a waste product, the same substance formed by fermentation of lactose, as in spoiled milk. The liver converts some of this back into glucose, in an attempt to salvage a food source from a toxic waste. In doing this the liver uses 1/5 the energy per glucose molecule than a normal cell can derive from it, but that's three times the energy a cancer cell will get from it. The more the weak, deranged cancer cell multiply, the more energy is lost to the normal cells. Thus we find that low levels of both oxygen and energy tend to occur where cancer is present, and vice versa. This wasteful metabolism becomes self-sustaining and dominant unless the oxygen and/or energy levels are sharply increased, or the cancer's food source is eliminated.

HEART TRANSPLANT

PIONEER RECOMMENDS OXYGEN WATER

Dr. Christian Bernard, who performed the first heart transplant, said in march 1986 that he was taking peroxide and water himself, several times daily to reduce arthritis and aging, and he recommended it highly at the time. Since

then he has come under heavy attack by the medical establishment for this position, and now states that he "is not involved" with the peroxide movement. But he does not retract his original endorsement, nor deny that he still uses it personally.

Over a hundreds physicians are already curing a broad assortment of "incurables" with this natural anti-microbial agent. This includes some forty or more in the US. A principal liaison to these free-thinking physicians is DR. Charles H. Farr, who wrote "The Therapeutic Use of Intravenous Hydrogen Peroxide". He directs the International Bio-Oxidative Medicine Foundation, and publishes the "IBOM Newsletter" which contains procedural updates and technical refinements for physicians using intravenous H₂O₂ therapy on their patients. By classifying the treatments as experimental they can get around the FDA's archaic restrictions for now, until massive public demand and/or media exposure force official approval.

Dr. Farr summarizes the beneficial effects of H₂O₂ in "IBOM" issue #2; these include killing bacteria, protozoa, yeast, and virus, oxidizing lipids from arterial walls,

increasing oxygen tension intracellularly, stimulating oxidative enzymes, returning elasticity to arterial walls, dilating coronary vessels, and regulating membrane transport. IBOM is at PO Box 61767, Dallas/Ft. Worth, TX 75261; 817-481-9772. Dr. Farr is at 1130 North May Ave, Oklahoma City, OK 73120; 405-752-0070 and 799-8781.

H2O2 CAN BE SELF ADMINISTERED

The oral and skin applications offer the option of home treatment, as no blood needs to be drawn, and hydrogen peroxide is cheap and plentiful. Keep it diluted though; in high concentrations it can irritate sensitive skin and induce vomiting when ingested. (Veterinarians routinely give common 3% H2O2 to animals that have swallowed poison, to make them throw it up.)

The starting dosage is one ounce of .5% (1/200) H2O2 in water, and some find they need to start with less. As the peroxide contacts pathogens in the stomach it liberates free oxygen, so those with high levels of virus and streptococcus in their stomachs may feel slight nausea while the reaction is occurring. The dosage is increased by an ounce per day, up to five ounces on the fifth day, then finally up to five

ounces three times daily for a week (or until disease is no longer present). Then the dosage is tapered back down over a five week period.

Food-grade or Re-agent (these are 35%, dangerous if undiluted) is better for internal use, since the common USP 3% H₂O₂ contains small amounts of chemical stabilizers and other impurities. It can still be used if food-grade is unavailable; it just isn't as pure.

An alternate dosage regimen uses three drops of 35% H₂O₂ in a glass of water three times a day, which is then increased by a drop per dose, per day, up to 25 drops per dose in extreme cases. Candidiasis victims should start at one drop per dose, and build their tolerance gradually. Some find the taste rather bleachy and unpleasant, and may wish to chase it with plain water. It can also be mixed with fruit juice, and citrus juices in particular cover the taste pretty well.

Adding seven drops of 35% H₂O₂ to a gallon of drinking water and shaking well purifies it and gives it a pleasant waterfall-like flavor.

For more dosage details and extensive references on H₂O₂ taken internally, contact:

Walter Grotz, box 126, Delano, MN

55328; 612-972-2144. His progress report, "ECHO", costs \$1.

He provided much of the material regarding H₂O₂ in this article. Another source is father Richard Wilhelm, Box 18, Union Rd, California KY 41007; 606-635-9297. These gentlemen have continued the research initiated by Dr. Edward Carl Rosenow (1875-1966). They have located over 4000 peer-reviewed medical articles on the applications of hydrogen peroxide, some dating back to the 1800's. They received the National Health Federation's Pioneer Award in Medicine this year, for this ongoing research. Walter Grotz, in particular, has been touring and lecturing extensively on the benefits of self-administered H₂O₂, literally saving lives wherever he goes, and bringing hope to people who have been told their causes were hopeless.

Dr. Kurt W. Donsbach at the Bio-Genesis Institute in Rosarita Beach, Baja Mexico (714-964-1535), has achieved a remission rate exceeding 70% in over 300 patients, at last count, most of whom had been previously told they were

beyond hope, and had "tried everything else". Bio-oxidative therapies are now applied to all cases that arrive at this clinic, and all respond except for those who arrive already very close to death. The Guadalajara Medical School, Mexico's largest, is initiating their own tests this summer, and will add it to their curriculum upon verification.

As Dr. Donsbach has pointed out, no US clinic or institution has ever tested intravenous H₂O₂ as a treatment for cancer, so any claim that it is not effective is not based on clinical trial, and amounts to willful

disinformation [This has now changed considerably, with major medical breakthroughs for i.v. treatment of cancer with H₂O₂ -Ananda].

The Gerson Institute and La Gloria Clinic in Mexico are also using Hydrogen Peroxide therapies on their patients, after the staff tested it on themselves and found it beneficial.

HYDROGEN PEROXIDE IN NATURE

Hydrogen peroxide occurs naturally in rain and snow, from atmospheric ozone, and in mountain streams where rushing water is continuously aerated. Most of us learned at an early age to drink only from a stream only where the water is running white, because that is where it gets cleansed of

germs. The reason is that H_2O_2 is forming there due to its rapid agitation, and that's what kills any harmful microbes present.

By just shaking a bottle of water vigorously for a while you can tuck enough extra oxygen into it to form detectable amounts of H_2O_2 , improving its purity, flavor and vitality.

It turns out that the spring waters at Lourdes, France, long recognized for their remarkable healing properties, are very high in natural hydrogen peroxide. The spring is fed by high altitude snow melt, so the snow apparently absorbs unusually large quantities of ozone on its way from the upper atmosphere. Other less-known high altitude springs are said to be likewise effective.

Similar benefits can be obtained in a swimming pool or hot tub, by discarding the chlorination system and simply pouring in H_2O_2 , or by bubbling ozone through the water.

One simple method of making pool-grade ozone is to pump air past an enclosed ultraviolet lamp.

Raw, uncooked vegetables and fruits can contain natural

hydrogen peroxide. Cooking drives off the extra oxygen.

Fresh fruit juices are well known for their blood cleansing and revitalizing capabilities, particularly when they are not combined with other foods; this is largely due to the H₂O₂ they contain. Reconstituted frozen juices have much less and are no longer "alive", thus they are not nearly as effective.

H₂O₂ IS THE HEART OF THE IMMUNE SYSTEM

Mother's milk contains a high amount of H₂O₂, especially colostrum, the first milk secreted after birth, which activates the newborns immune systems, and key to many other metabolic processes.

Under conditions of optimum health, H₂O₂ is produced by the body's immune system in whatever amounts are needed to quickly destroy any invading hostile organisms. It is made by combining water in the body with the free oxygen that is supposed to be available. When the body is oxygen-starved, it can't produce enough H₂O₂ to wipe out invading pathogens, which can then get the upper hand and cause visible disease.

OXYGEN BOOST IS KEY TO OTHER HEALING METHODS

When penicillin is effective against infection, it is largely due to the formation of bacterial amounts of H_2O_2 , when glucose is oxidized by O_2 in the presence of penicillin notatin. (General Biochemistry, Fruton & Simmonds 577.1 F944 p. 339)

Much has been made about the healing properties of interferon, but it is unbelievably expensive. However, much of its effectiveness is apparently due to the fact that it stimulates the production of H_2O_2 and other oxygen intermediates, which are a key factor in reactivating the immune system. (Journal of Interferon Research Vol 3, #2, 1983 p. 143-151.) Thus Interferon may turn out to be simply a very elaborate way to accomplish essentially the same thing as H_2O_2 regimen.

Vitamin C (ascorbic acid) has long been recognized as essential to the proper use of oxygen by the cells. Dr. Linus Pauling has demonstrated that large doses of vitamin C are effective against cancer. The mainstream medical community still has not acknowledged this discovery, let alone put it to use, despite Dr. Pauling's previous credentials. As it turns out, vitamin C actually creates

extra H₂O₂ in the body.

Organic Germanium (bis-carboxyethyl germanium sesquioxide) is gaining increasing recognition as a potent healing substance, primarily through the work of Dr. Kasuhiko Asai. This compound directly increases the body's oxygen supply, as it contains a great deal of oxygen in a form that can be easily assimilated. (See "Miracle Cure: Organic Germanium" by Dr. Paul Asai, Japan Publications, Inc., Tokyo and New York.)

Taheebo (aka Pau D'Arco or Lapacho Colorado) is a tree that grows in the Andes and fixes high concentrations of oxygen in crystalline form in its inner bark. The bark has been used for centuries by the native peoples of the area to prevent and reverse illness, and it is one reason, why they do not get cancer. In recent years it has become popular in the US, and it gets by the FDA as an "herbal tea" whose distributors wisely make no medical claims for it. Again, much of its effectiveness is apparently due to its high oxygen content, released in solution when brewed as a tea.

CAUSES OF OXYGEN DEPLETION

There are several common practices that drop a person's oxygen level far below what it should really be. At sea level, 20% of the atmosphere is supposed to be oxygen, but city air gets down as low as 10%, due to smog and removal of trees. Air that tastes bad induces a tendency to breathe shallowly, getting even less oxygen to the blood. So does lack of exercise.

The carbon monoxide (CO) in smog does not normally occur in nature in much quantity since it's formed by incomplete combustion of carbon compounds. It is electrically unbalanced, so it seeks to bond with any available oxygen to form the more stable carbon dioxide (CO₂). Those who breathe too much carbon monoxide tend to die, fast or slow depending on the concentration. It strips oxygen molecules from the blood to form CO₂, which the body can't use and must exhale, at least until its oxygen runs out. The fact that the body considers CO₂ a waste product, by the way, doesn't say much for carbonated beverages.

Tap water is very low in oxygen, having no opportunity to be aerated during its journey through the pipes, and being loaded down with chlorine and various contaminants. Since

cooking drives the extra oxygen out of vegetables, if one diet is mostly cooked or processed foods, there's yet another oxygen source lost.

EATING, FASTING AND OXYGEN BALANCE

Overeating is so common in the US it's considered "normal".

One cause is the widespread use of oral antibiotics. While destroying the target germs, these drugs also kill off one's intestinal flora, which are needed for healthy digestion.

With these friendly bacteria gone, digestive efficiency plummets. As a result, the sensation of hunger comes more often and lasts longer, as the body tries to compensate for ineffective digestion by increasing the amounts consumed.

Even just eating daily, without ever giving the gastro-intestinal tract a rest, loads down the blood with toxins and impurities, especially uric acid crystals. Under a microscope these resemble tiny coffin lids, interestingly enough, another clue to our Creator's whimsical sense of humor. When the waste products exceed the cleansing capacity of the kidney's, the blood ends up just having to haul it around the body and stash it wherever possible.

These toxins literally take up so much room in the blood

cells that the cells can't take on enough oxygen when they pass through the lungs. The blood's primary function of picking up and distributing oxygen gets blocked by overuse of garbage-hauling function.

Fasting restores health by giving the overloaded blood cells a chance to dump the toxins and inert matter through normal organs of elimination at a rate they can handle, instead of through the skin, as in acne, or other inappropriate places.

If the fast is long enough, accumulated residues in the body are also scoured out and expelled, giving a considerable spiritual resurgence once all the backlog is cleared away.

While the debris is flushed out, various toxic reactions may come and go. Once the blood is cleansed the red corpuscles have a lot more room for oxygen molecules, the oxygen saturation of the molecules is high, and health and energy are boosted considerably. Each breath now gives more life than it was able to in the blood's earlier state.

Most long-lived native peoples, who are not affected by our more common diseases, either include fasting as a regular part of their yearly food cycles, or eat much less overall, than industrialized peoples.

Today many Americans are existing at such high levels of toxicity, that their toxic reactions when attempting to fast can seem intense enough to make them start eating again before any serious cleansing can be accomplished.

Fortunately one can partially bypass the lungs and get the blood level back up, by taking oxygenated water internally and through the skin. Several weeks of detoxification of this regimen will also make it much easier to fast without discomfort, if one chooses. It reduces appetite, logically enough, to a level more in line with the body's actual needs.

The bacteria that aid digestion are not killed by oral use of H₂O₂, as long as it's diluted properly.

OXYWATER MAY EVEN CURE STUPIDITY

Perhaps the greatest potential benefit is the reversal of the slight brain damage caused by long-term oxygen depletion, which can be observed in the "average" human, and is not always all that slight. It's well known that after about nine minutes of no oxygen, from drowning or whatever, you can kiss your brain good-bye. By the implications of constant gradual oxygen starvation in our cities somehow

escape notice, despite the tiredness, depression, irritability, poor judgement and health problems affecting so many citizens.

Increasing the oxygen supply to the brain and nervous system will reverse these conditions. The oxywater regimen improves alertness, reflexes, memory and apparently intelligence, and may offer the elderly a new weapon against senility and related disorders. Alzheimer's and Parkinson's are reported to be responding to it. Alcoholics who start taking H₂O₂ soon loose interest in alcohol, and the thirst does not come back. Look up what alcohol does to your blood oxygen and your ability to use it, and you'll see why.

One possible spin-off of a coming major increase in the blood oxygen supply to human brains is that various short-sighted and oxygen-depleting activities such as deforestation, and other intelligent practices, should fade from the scene. Americans especially, will have an opportunity to outgrow many stupid things.

It's strange that the common drug aspirin "stops pain" by interfering with the nervous systems ability to use oxygen,

in the electrochemical reactions needed to transmit impulses. Though maybe it's not that strange, considering that the Bayer Company which originated it was a subsidiary of IG Farben, the German chemical conglomerate that is famous for, among other things, developing and mass-producing the lethal gas Zyklon-B specifically for the exterminations at nazi death camps.

ECONOMIC INERTIA

DR Terry McGrath, the CEO at Medizone, confirmed that Hydrogen peroxide would in principle act much like ozone in destroying AIDS virus, but pointed out that it's never likely to be tested and proven in the laboratory. There's simply no economic incentive, since it's an unpatentable process and offers no commercial returns than most other natural remedies. So it's completely up to individual patients and concerned citizens to push these options out into the open, immediately, before various companies get too financially committed to the assumption that AIDS (or any other disease) will continue to spread and be incurable.

This is a good place as any for the FDA-required disclaimer:

"Information given here is for research and educational

purposes only and is not intended to prescribe treatment."

VETERINARY AND AGRICULTURAL APPLICATIONS

Human's aren't the only life form to benefit from compensation for their oxygen deficient air, water and/or lifestyle. H_2O_2 in animals' drinking water, not enough to taste unpleasant, knocks out a growing list of illnesses. Locally, cats have gotten rid of their feline leukemia and chlamydia, and are back to their old energetic slapstick selves. Distemper in dogs has been reversed with H_2O_2 , and a growing number of farmers are applying it to their livestock to cut losses from disease and infected wounds.

Plants grow better with an ounce of 3% H_2O_2 per quart of water they're given. Spray the solution on their leaves as well. Seeds germinate faster, with bigger sprouts, when they are first soaked in 1 ounce of 3% H_2O_2 to a pint of water. Instead of cutting trees that are diseased or otherwise struggling, spray them with H_2O_2 and water (1 part 3% to 32 parts water).

WHY ISN'T IT ALREADY IN USE ?

The obvious question is, if hyper-oxygenation is so simple

and effective, why has it taken so long to discover it?

Ozone is hardly new and hydrogen peroxide has been on the market for over a century. Why aren't all doctors already using it ? How come this story isn't all over the major news outlets?

Turning the question around helps clarify the problem. Just exactly what would happen if a cure was discovered that was completely effective against the vast majority of diseases, ridiculously cheap and plentiful, and in most cases could be self-administered without a physician?

Would the current medical establishment welcome a breakthrough that could render 98% of all drugs, testing and disease related surgery obsolete? What would the response be of the pharmaceutical industrialists, hospital chain owners, health insurance moguls, AMA, and FDA?

Would you expect to read or hear such an announcement from any medical journal or media outlet owned by people financially committed to the medical status quo, which is practically all of them? How many want to make their own occupation unnecessary?

And if the cure had already been suppressed once, wouldn't the possible blame for allowing people to die without it provide even more incentive continue keeping the whole thing quiet?

All right then. This precisely the situation that exists, and the cure has indeed been around for ages. It has been independently reported effective against virtually every disease at one time or another, in thousands of public-domain medical articles, which had never been collected or correlated until recently. And it is so simple and basic that concealing it from physicians and the general public has required a tremendous smoke screen of artificial complications, narrow specializations, symptomatic classifications and user hostile treatments.

If this is so, it follows that the more profit-fixed elements of the medical establishment will not be too thrilled about the recent surge in interest in oxygen therapies. The drug industry has expanded enormously since WWII, while America's level of health has dropped from the world's highest to the lowest among the industrialized

nations. It does look as if the bottom line has been money and not health, for a long time.

The battle for the future of medicine, between Nature's truth and lucrative lies, is about to really heat up. We can expect to see disinformation articles and newscasts with persuasive medical experts, some of whom will even believe what they're saying, warning of the dangers of hydrogen peroxide, ozone and even regular oxygen. These reports will attempt to blur the distinction between using therapeutic dosages at safe dilutions, and the harmful effects of excessive concentrations. Plenty of grizzly examples are available, of what happens when various tissues are over-oxidized.

Anti-oxygenation propaganda pieces will probably not mention that over the years the FDA has approved H₂O₂ as a skin antiseptic at full 3% strength, as a hair bleaching agent at 6%, and for internal use as an additive for milk and in antiseptic long-shelf-life packaging. Nor are they likely to acknowledge that many European countries use ozone and H₂O₂ in their cities' water supply, and that they enjoy much better health than in the US. And they will be unable to

truthfully cite any examples of people who were harmed by using H₂O₂ in the current demonstrated therapeutic concentrations.

If not enough public move quickly to help spread the news of this alternative, those who fear it could reduce their economic power may go so far as to try to knock off someone who promotes it, while trying to make it look like "too much oxygen" is the cause. Also, product tampering has thus far mostly targeted Bayer Aspirin's competitors, in case you hadn't noticed, but drugstore hydrogen peroxide would not be immune to such tactics. One approach might be to plant a contaminated batch in a town where oral use is catching on and the medical establishment is losing ground, so someone gets hurt and the story gets nationwide coverage.

It is vital for Americans to realize that current economic dynamics don't allow the businessmen in charge of health and industry any incentive at all, to make people permanently healthy and lose them as customers. It's the same reason why the energy conglomerates do not encourage citizens to become energy-self-sufficient, the Pentagon has no incentive to stop wars, and the American Psychiatric Association sees

no advantage to ending mental illness.

Fortunately the majority of physicians really do want to see their patients get well. They also wouldn't mind gaining the respect and admiration with which physicians were once widely regarded. When it comes down to choice between saving lives and protecting profits, most will brave enough to overhaul their medical belief systems, discard obsolete methodologies, and basically tell the pharmaceutical conglomerates to go shove it. The rest will simply get left behind.

SOURCES FOR FOOD-GRADE HYDROGEN PEROXIDE

Most pharmacists have never heard of it, so it's usually a waste of time to ask them. A number of chemical supply houses have 35% H₂O₂ available; check your local directories and call a few. Under FDA pressure, DuPont and possibly other major chemical companies have recently issued warnings to their distributors, not to sell hydrogen peroxide to people who want it for healing purposes. So when you inquire, if they ask what you want it for, it will unfortunately be necessary to lie. If you say you want it as a cleaning agent, that's at least pretty close to the

truth.

Several physicians quietly sell it through the mail, but they aren't the same ones promoting its health properties, for obvious FDA-related reasons. A good source in California, though he can ship it anywhere, is Dr A J McDonald, at PO Box 775, Lodi, CA 95240; 209-368-8681; 12\$/pint.

Your best move would be to share this information with owners of health food stores in your area. Call them and ask if they have food-grade H₂O₂ (some already do) and tell them you want it and how it works. Encourage them to carry it and give them Dr McDonald's address if they don't seem inclined to track down a local source.

Cleanroom-grade 30% H₂O₂ (used for cleaning in computer rooms it is a powerful disinfectant and leaves no residue when it evaporates) is reported to be just as pure as food grade and much cheaper. Check with labs that make "water fabrication" chemicals, or contact the manufacturers of silicon chips and other computer parts, and the data processing complexes that might use it in their cleanrooms,

and ask where they buy it. The more sources become known, the harder it will be for anyone to make it unavailable.

GET THE WORD OUT

Write your elected officials, send copies of this information, and point out what will happen to a politician whose constituents learn he knew of a cure for cancer and AIDS but didn't tell them about it. Call in on a radio talk shows and share the good news, or send copies to their reporters and program directors, especially at listener-supported stations as these are less likely to suppress it. Don't assume your local papers have already heard of this; write letters to editors, and/or send copies of this report. Tack it on every bulletin board you see, and post it on all relevant computer bulletin boards.

If you know teachers, physicians, or health officials who can still think for themselves, tell them about this and give them the references. Notify your local police officials that hyper-oxygenation gives them a way of making sure they'll be safe from infection due to contact with AIDS carriers. If you really feel bold, walk into the local hospital cancer's wards and give a copy of this to anyone

who can still read, and slip out the back door before the doctors walk in. Share it with anyone you know who has a health problem, even a minor one; H₂O₂ apparently works on everything from acne to warts.

Above all, stop buying the idea that cancer, AIDS, and other "terminal" illnesses are automatic death sentences. When you hear some celebrity is sick or dying from this or that, look up their mailing address in Who's Who or whatever, and mail them this information. If the address is for an agent, which are notorious for blocking attempted communications to their client, you might include a cover letter to the agent, stating that the enclosed vital news is also being sent to their clients family members, and that if he or she learns through them that there was life saving information sent but held up at the agent's, that agent will be out of a job.

Act like you have the clout it takes to make a difference, and you soon will.

Major scientific breakthroughs go through three stages: first they are ridiculed, then violently opposed, and finally they are accepted for being self-evident all along. Let's see if we can short cut those first 2 stages a bit,

OK?

FURTHER INFORMATION SOURCES:

"ECHO", a newsletter on Oxygen Therapy, is available from Walter Grotz, Box 126, Delano, MN 55328, (1\$, 8p); 612-635-9297) have extensive references and case histories of successful treatments.

"The Peroxide Story" George L Borell, 3035 Rome Ave, Anaheim, CA 92804; 60 pp, \$4.95 plus \$1 postage.

The International Bio-Oxidative Medicine Foundation (IBOM) Newsletter contains technical updates for physicians using H₂O₂ therapies on their patients. PO Box 61767, Dallas/Ft. Worth, TX 75261; 817-481-9772.

Rex Research (PO Box 1258, Berkely, CA 94701) has five folios on Ozone Therapy; #4 (\$2, 10 pp) is specifically on ozone treatment of AIDS; see also #1, ozone vs a wide variety of conditions (6\$, 55pp); #2, ozone vs herpes, hepatitis, rheumatic diseases, also dental use (\$4, 29pp); #3, cardiovascular, ozone enrichment of blood prior to transfusion (4\$, 23 pp) and Ozone vs Cancer (\$6, 55pp).

The International Ozone Association, 83 Oakwood Ave, Norwalk, CT 06850; (203-847-8169) has available "Medical Applications of Ozone" the largest single volume on the

subject, for 50\$.

"Self-Treatment for AIDS: Oxygen Therapy" (\$12.95, 100pp), and home remedies for Candida" (\$8.95, 112pp) consist mostly of article reprints, compiled by Betsy Manning, 1600 Larkin #104, S.F. CA 94109.

"Search for Health", APW, PO Box 3052, Iowa City, Iowa 52244. Tom Valentine, Editor. Includes info on other oxygenating compounds for internal use, including AEROX, which they sell, and which is reported to give the same benefits as H_2O_2 , but tastes better and is more stable, though more expensive. (We have not yet obtained a sample for testing.) APW also is a source for full-spectrum health-enhancing KIVA lights.

Some of the formal medical articles on H_2O_2 include:

"Hydrogen peroxide mediated killing of bacteria", D P Clifford and J E Repine, (Molecular and Cellular Biochemistry 49, 143-149, 1982); Generation of H_2O_2 in Biomembranes", T Ramasarma, (Biochemica et Biophysica Acta, 694, 1982, 69-93); "Removal of Cholesterol and Other Lipids from Experimental Animal and Human Atheromatous Arteries by Dilute Hydrogen Peroxide", James W Finney, Bruce E Jay, et al, (Baylor University Medical Center, Dallas, Texas); also

a series on the role of H₂O₂ in immunity to malaria, in The Lancet, 12/25/82 p 1431-1433, 1/29/83 p 234, and 2/12/83 p 359-360.

Medizone International, 123 East 54th St, Suite 2B, NY, NY 10022; 212-421-0303; issues shareholder reports updating the stateside verification of ozone blood treatment. Hansler ozone generators will also be available to licensed physicians through Medizone.

Biozon Technik Co, in Bad Hersfeld, Federal Republic of Germany, also makes ozone generators for medical use.

Reprinted from NOW WHAT, issue one; \$4/issue, or \$15/yr.

Order from Waves Forest, PO Box 768, Monterey, CA 93942 USA

If by this point anyone remains skeptical, and has not yet digested the Pharmaceutical and medical corporation conspiracy issues, raising questions such as "surely, if there has been a relevant degree of success, without serious side-effects, I would have seen this evidence in the medical literature." Well, indeed, there has been such articles. But one must seek to find, it is not handed out on a platter. The following is thus an excellent, establishment article on H₂O₂:

Hyperbaric Oxygen:

More Indications Than Many Doctors Realise

-----by Eric P. Kindwall-----

from "British Medical Journal," August 28, 1993 v307 n6903 p515(2)

Subjects: Hyperbaric Oxygenation Therapeutic use

Full Text COPYRIGHT British Medical Association (UK) 1993

MORE INDICATIONS THAN MANY DOCTORS REALISE

Many British doctors are ignorant of the indications for hyperbaric oxygen and sceptical of its benefits, according to a recent survey of hyperbaric oxygen facilities. The survey, by the BMA's Board of Science and Education, concluded that given the present level of use then provision was sufficient, although doctors may be underusing the treatment.[1]

They need to know for which conditions hyperbaric oxygen works and refer accordingly. The telephone advisory service, run by the Institute of Naval Medicine at Gosport (similar to the National Poisons Unit help line), should be better known.

Treatment with hyperbaric oxygen was introduced as an adjunct to cardiovascular surgery before cardiopulmonary bypass techniques and deep hypothermia became available. But when surgery in a

hyperbaric chamber was no longer necessary most of the original researchers stopped studying it. Britain helped to pioneer the use of hyperbaric oxygen to treat carbon monoxide poisoning, refractory osteomyelitis,[2] and compromised skin grafts. But with no formal training programmes and little funding, the treatment now attracts little attention in Britain.

When administered at pressures greater than one atmosphere, oxygen can assume properties more akin to a drug than a simple support for metabolism. In carbon monoxide poisoning, for example, it stops lipid peroxidation, which spares neuronal cell membranes.[3]

It reduces odema by about 50% in post ischaemic muscle through preserving adenosine triphosphate.[4] In acute burns it reduces fluid requirements by 35% in the first 24 hours, thus reducing oedema.[5-8] It reduces white cell adhesion to capillary walls after ischaemic or traumatic insult, mitigating the no reflow phenomenon.[9] Red cell flexibility is doubled in about 15 treatments.[10] White cell killing of aerobic bacteria and some fungi is greatly enhanced at high oxygen pressures,[11] facilitating control of osteomyelitis[12] and reducing the number of operations and mortality in necrotising fasciitis.[13] Extremely important is its stimulation of new capillary and collagen formation in radiated tissue, normalising tissue oxygen

tensions to permit surgery, healing, and even bone grafting.[14
15]

Finally, it increases tissue levels of superoxide dismutase, which counters the formation of free radicals after injury, resulting in better tissue survival.[16] This is particularly important in crush injury, replants, and grafts, where free radical formation is responsible for reperfusion injury.[17]

Although many doctors believe that good research on hyperbaric oxygen is rare, the converse is true.[18-22] Over 3800 papers have been published on the topic despite the relative scarcity of chambers. The Undersea Medical Society began investigating the claims being made for hyperbaric oxygen treatment in 1977. A committee (which I chaired) considered 64 different allegedly improved by treatment with hyperbaric oxygen. In most of them there was insufficient evidence to warrant its clinical use.

In preparing our original report we consulted the largest private insurers in the United States, Blue Cross/Blue Shield, and the Federal Health Care Finances Administration. Since then the report has been continually updated. At present only 12 conditions are approved by the society for reimbursement.[23]

Since 1977 the number of clinical chambers in the United States has grown from 37 to nearly 300.

For inclusion on the approved list there had to have been

controlled studies or large clinical series indicating not only the efficacy but also the cost effectiveness of treatment with hyperbaric oxygen. In disorders for which prospective controlled trials were impossible or unavailable, evidence adduced for the efficacy of hyperbaric oxygen had to be at least as convincing as that used to support reimbursement of other treatments routinely paid for the insurers. The five major British centres for the most part limit treatment to those disorders on the approved list, despite there being no regulation to that effect.

This list can serve only as a guide. Though quite useful in diabetic wounds, hyperbaric oxygen is only part of a programme of total wound care. For some diabetic wounds hyperbaric oxygen is inappropriate if the large vessels distal to the trifurcation at the knee are occluded or severely stenotic. Crush injury and impending compartment syndrome need to be treated immediately if any worthwhile result is to follow. Late referral, which gives time for oedema, reperfusion, and injury; free radical damage; and the no reflow phenomenon to do their work, makes the treatment largely a waster of time and money. For some surgical patients the potential dangers of further trauma to the wound during transportation will militate against the use of hyperbaric oxygen. Experience has shown, however, that patients with severe carbon monoxide poisoning can be transported safely over long

distances in a properly equipped ambulance or helicopter.

Before transfer a critically ill patient is contemplated it should be ascertained that the receiving chamber facility can deliver the necessary level of intensive care. Whenever the use of hyperbaric oxygen is considered, consultation with the physician in charge of the hyperbaric oxygen facility is mandatory to ensure that referral is appropriate. The timing of hyperbaric oxygen in relation to surgery is also critically important. For example, in necrotising fasciitis, surgery is the accepted primary treatment, with hyperbaric oxygen used as a follow up. With gas gangrene, however, the hyperbaric chamber is used before surgery (other than for fasciotomy). In the treatment of radionecrosis the patient should be treated at least 20 to 30 times in the chamber, to induce the formation of new capillaries, before elective surgery is performed if healing is to be expected.

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Physiological Effects Of Tissue Oxygenation

On Wound Healing

-----by JoAnne D. Whitney-----

in "Heart and Lung" Sept 1989 v18 n5 p466(11) - ABSTRACT ONLY

Subjects:

Wounds and injuries Care and treatment

Skin Wounds and injuries

Oxygen in the body

Physiological aspects

Wound healing Physiological aspects

Reference #: A8868463

Abstract:

The availability of oxygen to tissues plays an important role in the process of wound healing. When skin is damaged, swelling occurs, fibroblasts (a type of cell) grow, and blood vessels and connective tissue begin to grow.

During the early inflammatory phase, the process of wound repair begins with the activation of enzymes and white blood cells which destroy bacteria and cause blood clot formation. Macrophages (cells that engulf debris) clear the wound of destroyed cellular material. The blood flow to the injured area increases, bringing nutritive substances to the damaged tissue.

Macrophages also stimulate fibroblasts to secrete collagen, a type of protein that strengthens the tissues. New blood vessels are formed to continue the supply of nutrients to the wound.

Although the mechanism is not well understood, the wound then begins to contract and tissue forms from the wound's edge.

Within one to two days, the epithelial cell layer begins to form.

Nutrition, the immune system, oxygen, blood volume, infection, immunosuppression (caused by drugs or disease) and a decrease in red blood cells are all influential factors in wound healing.

Oxygen affects the production of collagen, epithelial cell growth, and the growth of blood vessels. A decrease in the volume of circulating blood and the concentration of red blood cells can compromise the amount of oxygen available for wound healing.

Interventions to improve oxygenation and enhance wound healing include replacing reduced blood volume, monitoring fluids, watching for signs of infection, and monitoring the overall healing progress.

- (Consumer Summary produced by Reliance Medical Information, Inc.)

HEALING FOR PEANUTS

Amadis's Two Cents

Oxygen Therapies are a political and medical hot-potato. Ask your doctor what Ozone Therapy is, and he/she will probably respond "Never heard of it!" You might even hear the words "If there was something to it, I would have heard about it."

Oxygen Therapies have been around for many years, and range from the use of hydrogen peroxide to Ozone Therapy.

Ozone is by far the most aggressive of all the Oxygen Therapies, and perhaps the most controversial. Accepted in 16 countries, Ozone Therapy has met with much resistance in the United States. The FDA does everything in its power to quell the acceptance of it, but it is slowly gaining acceptance. The FDA would like people to believe that Ozone is a form of pollution found in the air, but Ozone in relation to Oxygen Therapies is produced using high quality Ozone generators from Medical Grade Oxygen. The main thrust behind the suppression of Ozone appears to be pharmaceutical based. Only Ozone delivery methods are patentable, so there is not much money to be gained by pursuing it clinically. On the other hand, the money that the pharmaceutical companies stand to lose because of Ozone is where the problem begins. If Ozone Therapy were to eliminate the

use of even 50% of pharmaceutical drugs, billions of dollars are at stake.

I am fortunate to live in Canada where Ozone Therapy is allowed (the legality of it remains a gray area), but still not widely known. The Former Deputy Surgeon General of Canada feels that there is something to Ozone Therapy, as does Canadian National Defence. Many doctors are skeptical of it, but I feel this is because of a lack of education. Results speak wonders, and if doctors are truly concerned with patients good health, they will have no choice but to listen.

I use Ozone Therapy and other Oxygen Therapies for general maintenance of my health. I do this with some degree of acceptance from my doctor. I have seen it do wonders on many immune-suppressive disorders. Unfortunately, many turn to this type of therapy after their bodies have been ravaged by traditional medical methods (toxic drugs, chemotherapy, radiation, etc.) and expect miracles. Oxygen Therapies will try to clean up the toxic mess, but sometimes it is just too late.

I have talked to people that say, "I tried it, but it didn't work for me", or, "I knew someone that tried it, and it didn't help them." When you get into an in depth conversation with the person, you find out that proper protocols using an ozone generator that outputs proper concentrations were not used.

-Amadis (Dave)

As todays skin care and beuaty products, are extensions of the silent war, being emulsed in petrolium products, such as the propyl alchohol, which enters the immune system within 30

seconds, and allows the intestinal fluke and other parasites the ability to enter the thymus gland, and eat it up etc, clearly it is time for a new skin care awareness to emerge. Oxygen again offers a key. For true long term beauty, not several year beauty's, at the expense of rapid onset of ugliness, disease, and damaged image. Oh do 02.

Oxygen Emulsion: The basics

by Ted Kalli

Vice President

AURA Research

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U.S.A.

This article will mainly concentrate on the various aspects of the use of oxygen, as related to skin care. To do this, we must have a basic understanding of one of life's basic elements, Oxygen. This requires some knowledge of Bio-Chemistry, the anatomy and physiology of the skin, nutrition, effects of the environment, etc.

While some of us are not medical professionals, our industry is getting more medically oriented. The tremendous reception The Advanced Dermatology News has received in both the beauty industry and medical community is a direct result of this trend and is a prime example of the thirst for knowledge, expressed by

professionals throughout the industry. Therefore, we must obtain a clear understanding of many terms and procedures common to both the medical profession and skin care industry.

Educational opportunities abound at trade shows, seminars, conferences and even with manufacturers. Why manufacturers, all they want is to sell their product line! Whether or not you use the products is your professional decision. But, how can you make this decision without full understanding?

It is up to you can to make your purchasing decision based on the facts presented. I have attended classes offered by esthetic and pharmaceutical manufacturers and have found many of them to be very informative and well worth my time.

In my column much of my text will be direct quotes from reliable sources. All sources will be listed so you can obtain the complete text. And now on to Oxygen.

Webster's Medical Dictionary defines oxygen as: an element that is found as a colorless, tasteless gas in the atmosphere of which it forms about 21% or combined in water, in most rocks and minerals, and in numerous organic compounds, that is capable of combining with all elements, except the inert gases, is active in

the physiological processes and is involved esp. in the combustion processes. To understand the definition, let's talk about how oxygen is used in the body.

The following are some excerpts from a consumer information brochure by International Bio-Oxidative Medicine Foundation (IBOM). IBOM is a Not for Profit Educational and Research Foundation. It contains a good description of oxidation.

Most biochemical reactions in the body are 'Balanced' through 'Redox' mechanisms. Redox means (Red)uction (Ox)idation. Chemically, anytime a substance is reduced (chemically changed) something else must be oxidized (chemically changed the other way) for the body to stay in balance.

Oxidation, is the process which causes 'rust' on metals (slow oxidation) or fire (rapid oxidation). In the body, some types of oxidation is thought to be harmful producing free radicals. We now suggest individuals take vitamin E (an anti-oxidant) to reduce free radical formation. However, there could be no life if certain types of oxidation did not occur. The body uses oxidation as its first line of defense against bacteria, virus, yeast and parasites. Even breathing OXYGEN is an oxidative process. Without

oxidation we die very quickly. Without oxygen for more than a few seconds, serious consequences follow.

Before I go any further I would like to address Free Radicals.

Dr. Kurt W. Donsbach D.C., Ph.D, in his book O2 O2 O2, gives an excellent explanation addressing this issue.

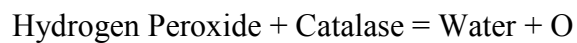
The Free Radical Flap

The most misunderstood aspect of hydrogen peroxide is the contention that it is a free radical. This is false. First of all, let's define a free radical.

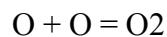
It is an element or compound which has an unpaired or unmatched electron. This lack of balance causes this substance to have a very reactive character.

However, it must be noted that these free radicals are very short lived. Usually in the one ten-thousandth of a second range, during this short time, these free radicals can cause damage by joining with other body chemicals and changing their character. Sometimes they produce a chain reaction by creating new free radicals.

That is the negative side. There is also a beneficial side to free radicals, but let us see what happens to hydrogen peroxide when it first enters the body through the blood stream (or the skin).



When hydrogen peroxide enters the blood stream, an enzyme catalase which is very prevalent in the human body almost immediately breaks it down to water and atomic oxygen, also called singlet oxygen or free radical oxygen.



In less than one ten-thousandth of a second, the atomic oxygen has become stable O₂ oxygen by pairing with another atomic oxygen. O₂ is the kind of oxygen the human body uses constantly.

There is no time for the unstable atomic oxygen to attack a cell and cause any damage.

As mentioned before, there are beneficial free radicals. One of them is atomic oxygen released when hydrogen peroxide is formed in the white blood cell (leukocyte) known as a macrophage. This

has a special area called a peroxisome which produces hydrogen peroxide, breaking down to water and atomic (reactive or free radical) oxygen which will kill an invading bacteria allowing the macrophage to engulf and destroy harmful organisms.

Another example of free radical benefit is carbon monoxide (CO), a deadly form of gas which can kill the human organism if inhaled in large enough quantities. It can be inhaled but not exhaled, accumulates in the blood stream reducing the amount of stable oxygen carried to the cells, where it is needed. To decrease the amount of carbon monoxide in the blood stream, it must be changed to carbon dioxide (CO₂) a form of gas which is readily exhaled. This is accomplished by the simple mechanism of adding a singlet oxygen to the carbon monoxide.

Well, I hope this clears up the free radical issue and we can concentrate on the beneficial use of oxygen emulsion products in skin care. To do this we must know something about hydrogen peroxide, since it is where we get the oxygen and water.

Hydrogen peroxide has been around since the 1870's. It is made up of hydrogen and oxygen. In fact, hydrogen peroxide is 94 % oxygen. Whenever hydrogen peroxide comes in contact with the

enzyme, catalase, it always breaks down to oxygen and water. This is true whether it is on the skin or in the blood stream. It should be noted that many of the references I will be using pertain to the oral and infusion use of hydrogen peroxide. Yes, people do drink very diluted hydrogen peroxide, but not the kind you buy in the supermarket or drug store. There are several different grades of hydrogen peroxide. The different grades are as follows:

3% Hydrogen Peroxide (Drug/Grocery variety)

Made from 50% Super D Peroxide, diluted. Contains stabilizers - phenol, acetanilide, sodium stannate and tetrasodium phosphate among them.

6% Hydrogen Peroxide (used by Cosmetologists)

Comes in strengths labeled 10, 20 and 40 volume. Must have an activator added to be used as a bleach.

30% Reagent Hydrogen Peroxide

Used in Medical research. Also contains stabilizers.

30 - 32% Technical Grade Hydrogen Peroxide

Used for washing transistors and integrated chip parts before assembly. Stabilizers contained are unknown.

35% Food Grade Hydrogen Peroxide

Used in food products like cheese, eggs, whey products. Also used

to spray inside of foil lined containers for food storage - known as aseptic packaging system. The product of choice in most applications using hydrogen peroxide.

90% Hydrogen Peroxide

Used as a source of Oxygen at Cape Canaveral. Used as a propulsion source in rocket fuel.

The 35% Food Grade Hydrogen Peroxide, greatly diluted, is what is consumed by humans by choice. This is not widely practiced in the United States, but there has been a great deal of research on the subject. Dr. Donsbach's book, O₂ O₂ O₂ lists 32 such studies in his bibliography. Many of these studies were done in the United States at the Mayo Clinic and Baylor University. If you interested in further information on this subject, look for Oxygen Therapies, Ed McCabe, Energy Publications, 1988.

This writer is concerned about the external use of hydrogen peroxide.

Hydrogen peroxide in it's aqueous form is not very stable. When it is in the emulsion, it is very stable.

In 1990, I introduced oxygen emulsion skin products to the United

States. It was a new concept and many professionals were skeptical about it. But, in less than two years "oxygen emulsion" had become a popular industry buzzword.

Why and how does it work? The facts are, very simple. The enzyme catalase exists in the skin, as well in other parts of the body.

When hydrogen peroxide comes in contact with the skin, it always breaks down to oxygen and water. In the aqueous form, which is commonly used as an antiseptic, most of the oxygen escapes to the atmosphere. This is the 'bubbling' that is often seen on the surface of the skin.

The oxygen emulsion, which is an oil-in-water emulsion of hydrogen peroxide, also breaks down to water and oxygen. But, the oil phase of the emulsion does not allow the oxygen to escape to the atmosphere. This creates a pressure and the skin becomes the path of least resistance. When hydrogen peroxide changes from a liquid to a gas (which happens instantaneously), it increases in volume 22.4 times. This increase in volume is what causes the pressure and why it penetrates the skin. The oxygen becomes a gas only during this instantaneous reaction. When it penetrates the skin, it is dissolved in the extracellular water and in the capillary plasma. Molecular oxygen (gas) can only exist in the

lungs. The presence of the oxygen in the plasma of the blood can be measured using medical monitoring equipment manufactured by Kontron, a division of Hoffman-LaRoche. "Before and after" measurements using this equipment will show a dramatic increase in the partial pressure after application of the oxygen emulsion.

When the oxygen penetrates the skin it acts as a 'vehicle.' It propels water and other ingredients with it when it penetrates the skin, if they are of the correct molecular size. When combined with beta-caroten, the oxygen carries the beta-caroten with it. Once the beta-carotene penetrates the skin, its is converted by the body to vitamin A acid. This conversion is well documented by many published papers on the activity of beta-carotene and other carotenoid.. So in addition to oxygen and water, we have all the benefits of retinoic acid, without the adverse side effects.

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The Mechanics of O₃ in Medicine

Why? Because even among all the ozone doctors, only a few rare souls understand the back-away-and-look-at-the-whole-thing concept. The concept is simple: the human body is 66% water. In a 150 pound man, there would be 100 pounds of water. It divides up like this:

Percentage of water making up tissues, organs, fluids and bone

in the human body.

Brain 75%

Heart 75%

Lungs 86%

Muscle 75%

Liver 85%

Kidney 83%

Bone 22%

Blood 83%

Saliva 95%

Perspiration 95%

Some are conditioned to think of ozone as "another drug". It would be useful to take a minute and forget the idea of putting a little drug in the body to bring about changes, and instead look at our task of cleaning up 100 pounds of water as if you were not a doctor, but an engineer approaching a mechanical problem. Away from the human body, how would you physically completely detoxify and completely purify 100 pounds of dirty, disease-laden water? You would micro-bubble a lot of strong ozone through it for a long time while running it through filters. This would rid out 100 pounds of water of any

bacteria, viruses, fungi, pathogens, and any other toxic contamination.

Take your thoughts back to the human body. How are you going to purify 100 pounds of body water? By putting 10cc's of low concentration ozone in a muscle? Of course not. That may bring about minor blood chemistry changes, but complete purification? No. You must *flood* the body with oxygen long enough to purify it, and at a rate slow enough so that the filters (organs of elimination) won't clog. The only way to achieve optimum purification or healing using ozone.

Our 150 pound man with 100 pounds of water has approximately 12 pints of blood in him. His blood is 83% water, so in our case therefore, about 10 pounds of water. Even if you completely purify the bloodstream, you are only purifying 10% of the dirty water problem. The blood circulates through the body 12 to twenty times per minute, but what about the lymph?

Here's what the AMA said in a "Today's Health" article (December 1964) by J. D. Ratcliff.

"The Lymph as vital as the main bloodstream, the intricate

and all but invisible lymphatic network ... it is one of the world's rivers of mystery - sluggish, largely unmapped, many miles long. The Lymphatic system has puzzled physiologists since early Greek times ... our health, even our lives depend upon how well this complex system functions.

In contrast to the bloodstream, which follows a swift flowing closed circuit from arteries to capillaries to veins and then back to the arteries, the lymphatic system flows slowly in a single direction. Its initial rivulets - microscopic in dimension - originate in intercellular space. Fluid gathered here passes through ever-enlarging ducts until it reaches the lower neck region, where it empties into veins leading to the heart to be mixed back into the blood. (Note: it takes 24 hours for the lymph to completely circulate through the body.)

Much of the mystery surrounding the lymphatic system traces to the fact that most of its ducts are so fragile that they are almost invisible - the smallest have walls of only one wall thickness. And the fluid they carry is ordinarily almost as clear as water. Moreover, at the touch of a probe, all but the largest lymphatic vessels collapse, as they do in death.

Exploring such a gossamer stream has called for supreme

ingenuity. In many respects the body is like a vast swamp. Its trillions of fluid-bathed cells live an aquatic life. The lymphatic network provides an all-important drainage system."

So, when you're up to your neck in alligators (facing terminal disease) it is hard to remember that your original objective was to drain the vast swamp. To purify the water, all of it, beyond the blood, into the lymph, into the gossamer passageways, through the organs, within the cell walls themselves, even the aquatic life surrounding the DNA, how are you going to do it?

The German clean a pint or more of blood three times a week. Pioneers in the U.S. inject several syringes of oxygen/ozone into the bloodstream once a day for six weeks and get great results, but are we even close to what is needed? Blood and the lymph eventually carry oxygen to every cell, but what about the hidden backwaters of the swamp. Maybe the present eventually carry oxygen to every cell, but what about the hidden backwaters of the swamp? Maybe the present methods work, but can we improve the delivery system?

There are four devices now on the market to answer the call of

approaching total purification:

OZONE BODY BAGGING

Plastic or ripstop nylon bags with drawstrings at the neck and cuffs, some with legs, some without. The patient takes a shower and while still wet with the pores "open", he completely covers his body, except his head, within a big bag. The bag is pumped full of ozone made from pure oxygen.

THE AQUACIZER

The patient reclines in a large "clamshell" chamber with head protruding outside while micro-nozzles spray warm ultra-pure water homogenized with pure oxygen ozone into the body. The skin capillaries dilate and discharge toxins into the very hungry 10 megohm ultra-pure water, and absorb ozone into the skin, lymph and bloodstream at the same time.

HYPERBARIC CHAMBERS

Patients lie or sit in a pressurized oxygen atmosphere. The oxygen pressure on their whole body harmlessly forces oxygen through their skin and deep into the most hidden body cavities.

THE POLYATOMIC APHERESIS UNIT

This has to be the most advanced medical ozone delivery system to date. The patient lies in a reclined chair while blood is withdrawn out of one arm, ozonated at slight pressure continually, and pumped back into the other arm. A one hour treatment alone is superior to any other ozone delivery method. Recent clinical trials had a few patients circulating in the chair for over eight hours! Imagine the volume of blood, lymph, and organ purification in an eight hour treatment. Now combine Polyatomic Apheresis with The Aquacizer and hyperbarics. Total purification inside and out.

A little ozone can clean the blood up so well that an immediate blood test will show a state of health, but unless all the little gossamer ducts are cleaned up, after a few days of the lymph recirculating, doing its job of picking up debris and remixing with the blood, a person could test positive again for a virus. The original PCR HIV test sensed one viral particle in one thousand units, now it detects one particle in two million.

To be and remain totally PCR or any virus negative -
All the patient's body water must be totally purified.

As we relay elsewhere in this book, negative ions dramatically increased Extra Sensory Perception scores that were made in double blind faraday studies by Dr. Andrija Puharich. He

also found an immense increase in the healing capability of the body, as negative ions increased the 8 hz bi-hemispheric synchronisation of the two brain halves. It is this 8 cycles per second rhythm, which Dr. Puhrich measured being emitted from the hands of successful healers, and also has been repeatedly demonstrated to be the frequency, at which water electrolysed, actually produces the COHN set of proto-life - this findings were conclusive, and replicated by many. The negative ion increase, allows the body to be flooded by electrons, which then fill in the eight electron orbital positions of the atoms, in the polysacharide cells, forinstance. This changes the cellular charge polarity, and allows only harmoni 8Hz life giving waves to enter into the cells. Here, breathe therapy, and the importance of oxygen takes another dimension. Following are other points for negative ion consideration:

Why Are Negative Ions

So Healthy?

Lenard (1915) found that when water is atomized (e.g. on impact of a water droplet), negative and positive charges are SEPARATED.

Molecules which are torn from the surface of the water bear a NEGATIVE charge (small negative ions) whereas large drops or the entire mass of water are POSITIVE.

This provided an unexpected explanation for the refreshing, invigorating effect of residences close to a waterfall or spring, or even after rain.

Some of these reactions which IMPROVE WELL-BEING and physical and mental capacity have since become known.

Negative ions produce an INCREASE in hemoglobin/oxygen affinity so that the partial oxygen pressure in the blood rises but the partial carbon dioxide pressure DECREASES.

This results in REDUCED RESPIRATORY RATE and ENHANCES the METABOLISM of water-soluble vitamins.

In addition, negative ions produce an INCREASE in PH and, in particular, an INCREASE in the SECRETORY performance of the MUCOSA with an INCREASE in CILIARY MOVEMENT in the airways.

According to the studies of Fleischer and Pantlitschko, negative ions probably also IMPROVE BLOOD FLOW by increasing the release of proteolytic enzymes with fibrinolytic activity.

Wordens studied the adrenals of golden hamsters kept under the same experimental conditions. The adrenals of animals treated with POSITIVE ions weighed 33% LESS than the adrenals of animals treated with normal respiratory air.

On the other hand, the weight of the adrenals from golden hamsters treated with NEGATIVE ions was 29% HIGHER.

Olivereau found a 30% ENLARGEMENT of adrenals in rats after 20 days of treatment with NEGATIVE ions. This finding suggests that the ability of the adrenals to produce glucocorticoids is REDUCED by POSITIVE ions and INCREASED by NEGATIVE ions.

Considerable INCREASE in VITAL CAPACITY were observed by M.A. Vytchikova and A. Minkh in 1959, with the maintenance of blood sugar and blood oxygen levels.

Thus, in a group of 9 sports students, Minkh found that ergometer endurance was INCREASED by 260% in 32 days compared with a normal control group following the INHALATION for 15 minutes DAILY of air enriched with 1.5 million NEGATIVE small ions per centimeter.

Even before the 1976 Olympics, air ionization in the sleeping quarters of team members was used to improve performance in sports centres in the USSR and the GDR [M. Jokl, Prague].

Studies by Altmann in 1975 clearly show that the performance of school children can, for example, be CONSIDERABLY INCREASED by changing the electrical conditions of the rooms. Comparable effects have also been achieved by the use of IONIZED AIR.

According to the latest information in the fields of medicine, biology and meteorology, it can be definitively established that atmospheric ions have a biological effect.

Atmospheric electrical factors are a component of our environment and we humans are clearly affected by ELECTRO-IONIC MICROCLIMATES to a far greater extent than previously imagined.

This finding acquires particular significance since, as a result of artificial air conditioning (e.g. atmospheric pollution, buildings, air-conditioning units, heating, electrical installations, plastics), civilized man spends 50-100% of his time in an UNNATURALLY CHARGED ELECTROCLIMATE.

In cities, in closed rooms and in cars, etc., the proportion of small negative ions in the atmosphere is markedly reduced compared with undisturbed nature.

An atmosphere with an EXCESS of NEGATIVE ions, such as frequently arise under open sky, usually INDUCES a complete VEGETATIVE TURN-AROUND within twenty days.

In the curative phase of this total turn-around, the vegetative nervous system is normally RESTORED and the course of infectious

diseases is essentially ATTENUATED (weakened) and (healing is) ACCELERATED.

VANGARD NOTES:

The information in this paper provides more than sufficient evidence that negative ion generators can only be a good investment. The small decorative water fountains which cascade or spray are not only visually appealing, but also provide the pleasing sound of moving water. Now with the explanation of the negative charge from the rupturing of the water molecule, we can see how the atomizing process is a highly desirable effect to bring about.

Many of the electronics magazines have ads in the back for companies which sell surplus. We have seen small plastic impeller pumps which could easily be built into a fountain or waterfall. The cost is minimal, something on the order of \$5 to \$25 for the pump, plastic, plaster of paris, concrete, fiberglass or earth all can be used to build the fountain.

A very neat and healthful project, in fact, something which could make money for all you entrepreneurs. Many people would

buy such devices if they were available for a reasonable price.

One in the bedroom, where face it, we spend at least 6 hours per day, one in the living room or den, where we spend up to 4 hours or more per day. There are lots of possibilities.

For that matter, the atomizer does not have to be decorative, just a way to moisturize the air with the negatively ionized droplets. Incidentally, most modern cooling systems use refrigerated air which means the air is essentially recirculated and the majority of the moisture is REMOVED.

Have fun and good health to you!

The Father of Oxygen Therapies

The reason so many people have been turned onto Oxygen Therapies is due to the daring and pioneering work of Ed McCabe. For years he has been at the forefront of the public making strides in introducing these cheap solutions, and was struck numerous times by the threatened Medical corporate state. In 1992 he published: O2xygen Therapies - A New Way of Approaching Disease. Many consider the doctor to be the father of Oxygen Therapies. For over nine years now, Ed has dedicated his life to furthering the cause, traveling the world in an attempt to get the word out.

ED McCABE BIOGRAPHY

Ed is an investigative journalist and leading international author, speaker, and

expert on the subject of oxygen therapies. His ongoing involvement with advanced healing modalities encompasses a span of over 25 years. He holds a degree in Educational Media from the University of Massachusetts, and he became expert on the subject of oxygen therapies since focusing solely upon them as a research journalist during 9 years of intensive study, investigation, experimentation, interviews, and travel.

Although several oxygen therapies have been in use for over 100 years, Ed is the only person to date who has undertaken a worldwide investigation and publication of their effectiveness. To do this, he interviews thousands of patients and hundreds of doctors, and regularly visits many of the major oxygen therapy centers worldwide.

Although oxygen therapies are stated by many experts to be highly effective, before Ed's published works and his extensive lecturing, these therapies remained mostly unknown to the general public, and the professional organizations promoting them were in danger of floundering. The patents on most of the oxygen therapies had expired years ago, so there had been little interest by the pharmaceutical houses and the media in promoting them, and almost no advertising had been done to let people know of their existence. Ed has daily spent the last 7 years of his life actively changing this situation in order to lessen the all too common and unnecessary suffering of people with serious diseases. The legion of converts to these therapies grows daily, and the manufacturers and professional organizations surrounding them are now flourishing, in very large part because of Ed's focusing the public's

attention on them. He created the Oxygen Therapy movement where there was none before!

Ed has publications, tapes, and videos which have over 40 distributors in seven countries, including the largest U.S. health book distributors. Now in its 40th printing, his best-selling classic book Oxygen Therapies was the first publication in history to detail all known ways of using special forms of oxygen to oxygenate the body. Now millions know that the use of oxygen therapies is of prime importance in order to maintain health and in the treatment of disease.

Ed writes a syndicated newspaper column and numerous national magazine articles appearing in "Aids Patient Care," "Health Freedom News," "Health Consciousness," "Explore!," and "New Perspectives" magazines. He has been a very popular guest on over 1,200+ radio and television stations and speaking platforms in the U.S., England, Scotland, Australia, Canada, Mexico, and New Zealand, including the U.S.'s "Maury Povich" national television talk show on April 21st, 1993, which devoted a whole show to the oxygen therapy work surrounding Ed and his associates.

Ed is the Executive Director of The Foundation For The Advancement Of Oxygen Therapies, a not for profit public service organization. The Foundation is dedicated to oxygen therapies research, education, and the spreading of the good news about oxygen therapies through the media.

Ed is also a recipient of The International Bio-Oxidative Medicine Foundation's prestigious "Special Recognition" and "Distinguished Speaker Awards."

Ed's publications and tapes can be ordered through:

Crossroads and Family Health News 1-800-635-5823]

Books

- * O2xygen Therapies - A New Way of Approaching Disease
- * Oxygen, Oxygen, Oxygen
- * Hydrogen Peroxide, Medical Miracle
- * The Use of Ozone in Medicine - 2nd Revised Edition
- * Hydrogen Peroxide Therapy - Newly Revised 11th Edition
- * The Un-Medical Miracle - Oxygen
- * Oxygen Healing Therapies
- * The Story of Ozone
- * Ozone - Purifier of the Earth and Cleanser of all Living Beings
- * Art of Breathing
- * Super Power Breathing for Super Energy

O2xygen Therapies - A New Way of Approaching Disease

Product No: K989 Disease \$15.00

By Ed McCabe

In this book Ed McCabe reveals:

- * Current popular methods of increasing cellular oxygenation.
- * Formulas, patents and ongoing lab scientific and medical studies.
- * Anecdotal and medical case histories of former AIDS and other degenerative disease victims, who were treated with oxygenation methods by health professionals, and are now viral free.

This book is a virtual encyclopedia of all known ways of oxygenating the body.

Oxygen, Oxygen, Oxygen

Product No: K463 \$3.95

By Dr. Kurt Donsbach

DR.DONSBACH TELLS YOU WHAT YOU NEED TO KNOW ABOUT OXYGEN.

Spokesperson who has earned the respect and admiration of his colleagues with his on target approach to nutritional care and preventive health philosophy.

In this book Dr. Donsbach answers your health questions as he guides you the intricacies of the human body.

- * Understand the physiology of various conditions.
- * Assist the body with nutrition oriented measures.
- * Avoid health problems with good prevention.
- * Apply proper dietary habits for specific conditions.

Hydrogen Peroxide, Medical Miracle

Product No: B01 \$12.95

By Dr. William Campbell Douglass

No other chemical compound comes even close to hydrogen peroxide in its importance to life.

H₂O₂ is involved in all of life's vital processes. It is truly the wonder molecule. The cells in the body that fight infection, called granulocytes, produce H₂O₂ as the first line of defense against every type of invading organism - parasites, viruses, bacteria and yeast. The presence of this amazing substance is required for the metabolism of protein, carbohydrates, fats, vitamins and minerals. It must be present for the immune system to function properly. Join Dr. William Campbell Douglass as he reveals how this fascinating, miraculous healer works to rid the body of disease. Dr. William Campbell Douglass is a fourth generation physician. His family has been serving the state of Georgia since 1850. He is a graduate of the University of Rochester, New York; the University of Miami School of Medicine; and the United States Naval School of Aviation and Space Medicine. Dr. Douglass travels the world giving lectures, doing radio and

TV talk shows and gathering information that is not covered by our press.

Dr. Douglass was voted Doctor of the Year in 1985 by the National Health Federation, and was a founding member and state president of the Florida American College of Emergency Physicians.

The Use of Ozone in Medicine - 2nd Revised

Product No: B02 Edition \$33.95

By Renate Viebahn

Part 1 is devoted to the history of ozone/oxygen therapy and to its biochemical, technical and clinical applications.

Part 2 presents a selection of ozone equipment, safety precautions and shows how to treat lesions, burns, virus infections such as herpes and hepatitis, circulatory disturbances or rheumatic/arthritis complaints with ozone.

A special yellow-pages section provides the therapist with an alphabetical listing of indications and applications (e.g. acne, allergy, bathing therapy with ozone, cancer, intramuscular injection, the use of ozone in dental and veterinary medicine, use of ozonized water, wound healing) and with guidelines for the treatment of each case.

Part 3 offers a comprehensive bibliography of European literature on ozone/oxygen therapy and other useful information about organizations and their publications, equipment and its manufacturer. It also offers a sample

of the brochure distributed to patients by the Medical Society for Ozone Therapy.

Hydrogen Peroxide Therapy - Newly Revised 11th

Product No: K361 Edition \$3.95

By Conrad LeBeau

Includes:

- * Bio-oxidative Formulas you can make at home.
- * Hydrogen Peroxide and Cancer - the scientific evidence.
- * The historical use of ozone in the treatment of AIDS, by Dr. John Pittman, M.D.
- * New immune rebuilding diet plan

The Un-Medical Miracle - Oxygen

Product No: T663 \$12.95

By Elizabeth Baker

Demand for the truth, for information, for help, is making The Un-Medical Miracle - Oxygen by Elizabeth Baker a best seller with over 10,000 copies in print. Now in a new updated version this book has even more to offer those who need help and support for their health. Expanded and with more practical and timely information concerning our greatest resource -- OXYGEN, it is a must reading for all concerned with the critical health

issues of today. The book plays a vital role in understanding the nature of the therapies available to all of us for combating diseases. The safe and natural element, oxygen is available to each and every one of us at a fraction of the cost of standard contemporary medicine. Oxidation is life, without it we would cease to exist.

A primary aspect of The Un-Medical Miracle - Oxygen is to make readers aware that the therapies mentioned are not new. They have been around for the better part of this century and are well documented, not only in the US but around the world. Why should we let someone else decide the state of our health and wellness when it is within our own power to do so? Oxygen is nutrient number one, readily available to help us rebuild and recover, to heal and not harm.

Elizabeth Baker has given us a book to do just that. It is a book inspired by a woman who has known the suffering of disease and the road to recovery. It's Elizabeth's great joy to share the knowledge and information gathered from her research. Her own experience has proven the worth of her words. Elizabeth devotes her life to helping others through nutrition and alternative health therapies. She continues to travel around the world, making available her wit and expertise on the subject of health and nutrition in classes, lectures and on radio and television.

This book is the perfect follow up to the UN-MEDICAL BOOK in offering

people the best opportunity for optimal health. Elizabeth has given years to the study of rejuvenation of health. A mostly raw food diet was a key turning point in her quest to conquer Addison's Disease, colon cancer, arthritis and a weakening immune system.

Oxygen Healing Therapies

Product No: 1306 \$12.95

By Nathaniel Altman

Scientists recognize that most disease states - including heart disease, cancer, immune disorders such as candida and infections related to HIV - are caused by oxygen starvation at a cellular level. We receive most of our oxygen from the air around us, but breathing isn't always enough. With the new bio-oxidative therapies you can actually generate more oxygen in your body to achieve optimum health and longevity.

OXYGEN HEALING THERAPIES is the only book on the subject to place bio-oxidative therapies in the context of holistic health. Assembled here is the latest, most reliable and most accessible information about the therapies, how they work and what to do to promote the healing process. The author also shows how you can enhance the effectiveness of the treatment through diet and the use of minerals, herbs, exercise and visualization.

Nathaniel Altman traveled to Germany and Cuba and interviewed scientists

from Russia, France and the United States to obtain documented scientific evidence and clinical findings. He demystifies the terms "antioxidants" and "free radicals", describes oxygen's role as a detoxifying agent and explores various bio-oxidative therapies that can help restore oxygen to the immune system at a cellular level and increase vitality.

The Story of Ozone

Product No: B03 \$10.00

By Plasmafire International

THE STORY OF OZONE contains a collection of several articles, stories and letters covering the medical history ozone therapies, uses of ozone therapies and many different applications of ozone therapies. Some of the authors include; Saul Pressman, Fritz Schellander, Dr. Kurt Donsbach, Alive Magazine and the Canadian Government.

Ozone - Purifier of the Earth and Cleanser of all Living Beings

Product No: B04 \$71.95

By H. E. Sartori, M.D.

This book, the result of over 40 years of experience with all aspects of ozone, is perhaps the most complete listing of applications of ozone compiled so far. It offers detailed protocols for the

effective treatment of degenerative diseases including cancer, AIDS, rheumatoid diseases, multiple sclerosis, Alzheimer, Parkinson, allergies and immune diseases, infectious diseases, cardiovascular disease, rheumatoid arthritis and systemic lupus erythematosus, diabetes mellitus, impotence, cataracts and many other conditions. It also discusses veterinary ozone applications, sterilization of blood and blood products with ozone, preservation and enhancement of topical with ozone, as well as a comprehensive system of environmental cleanup including toxic waste, destruction transmutation of radioactive wastes, metal separation and beautification of ecoparks.

Throughout the work, a comprehensive holistic approach is stressed whereby ozone, in most cases, is the only part of a comprehensive treatment program which includes diet and lifestyle, specific nutrients, herbal treatments, homeopathy, EDTA - Chelation, neural therapy, electromagnetic therapies, cell and thymus therapies and other complementary methods.

Art of Breathing

Product No: T1779 \$9.95

By Nancy Zi

Progressive exercises, specific applications, and mental imagery drills teach the oni yi method of controlled breathing.

Super Power Breathing for Super Energy

Product No: B641 \$6.95

By Paul Bragg & Patricia Bragg

Formerly titled: "super brain breathing". Revised and expanded to better teach readers how to resist disease by using their lungs to the fullest capacity.

Breathing deeply' calms the nerves' and fully energizes the body and can fill us with peace so that we can experience a longer, healthier, more youthful life.

The next nutrient we now introduce from various perspectives and viewpoints, is the Aloe Vera plant. In addition to its rich nutrients, it also harbours superconductive mono atomic elements (re Dr. David Hudson's special analysis). Thus it may well be related to the White Lion of alchemy, and certainly provides the body with more mega herz of life force, and thus light. Its other affects are equally astounding.

Digestion & the Immune System

& Aloe Vera MPS

-----By Dr. John C. Pitmann, M.D.-----

Poor digestion results in two primary problems:

1. Food is not broken down into the elemental building blocks necessary for the body to rebuild itself and generate energy for metabolism. At a cellular level, toxins are not removed from the cells, sufficient nutrients are not moved in to the cell, and not enough energy is produced for cell functioning. This effects all cells including the immune system cells such as white blood cells, which then lack the fuel and the oxygen to carry out their normal function.

2. Even more significant is that maldigestion results in food remnants in the gut causing several pathological reactions. First, there is irritation of the intestines, causing increased permeability of the cells in the intestinal wall. Undigested protein can then leak across into the lymph system and then into the general circulation, with the immune system reacting to contain the foreign invaders. The immune system becomes overtaxed and runs down. Oxygen and fuel gets used up; the immune cells wear out faster and do not reproduce in sufficient numbers.

Undigested food remnants can also become a breeding ground for candida and several types of parasites. Candidiasis produces toxins that cause increased digestion dysfunction, food allergies, fatigue and a host of other problems. Ultimately, this causes the immune system to become even further depressed.

The inflammation in the intestines causes further damage by causing reactions that produce oxidative free radicals as waste by-products. Then negatively charged oxygen molecules begin to chop holes in cell membranes in an attempt to grab a positive charge. This results in further damage to the intestinal walls and ever increasing permeability. The leaky gut syndrome increases with more food particles going into the blood.

Research has shown that Aloe mucopolysaccharides have a remarkable ability to normalize all of these damaging processes, which has the effect of enhancing the immune system function through improved digestion. Aloe mucopolysaccharides act as a potent anti-inflammatory agent, stopping the damage and leakage of the intestinal wall, thereby taking the stress off the immune system.

Aloe mucopolysaccharides have direct ant-bacterial, anti-viral, anti-fungal/yeast and anti-parasite effects. Chronic yeast growth can be controlled so the normal, healthy flora can then thrive more easily. Furthermore, the macrophages, monocytes, antibodies and T-cells are stimulated. Phagocytosis (when large white blood cells engulf particles) is dramatically increased to ingest foreign proteins, such as the HIV virus. Aloe mucopolysaccharides increases the number and intensity of all immune cells in the body.

The key to integrating healthy digestion with a healthy immune system is the oral ingestion of Aloe mucopolysaccharides.

Aloe Vera Saves A Doctor's Life

By Dr. David Wheeler , D.C.

Published In The March/April 1996 Issue Of "To Your Health"

In May of 1995 I believed I was going to die. I was so sick that every living moment was an agony. I had no idea that I was actually about to undergo a powerful and unforgettable healing experience.

I had been ill for three years--ever since a trip to India where I came down with bacterial and amoebic dysentery. Tropical medicine specialists had prescribed potent drugs, but even so I continued having recurrent nausea, fatigue, cramping, and bloody stools. Each time the dysentery came back, I took another course of toxic medication.

In January of 1995, when I took the final course of drugs, the side effects were devastating. My immune system literally crashed. My throat became so sore I could barely swallow, my joints hurt unbearably with arthritis, and lumps appeared in my neck that ultrasound tests indicated were tumors.

I had been trained in Network Chiropractic (a gentle and powerful system of chiropractic developed by Donald Epstein, D.C., and practiced around the world), and out of this developed my own energetic system of body work. I am actually able to see energy patterns. Disease appears to me as energetic patterns of different colors and densities. I had always believed in the innate healing potential of the human body, so to help heal myself I left Manhattan to rest in Hood River, Oregon. I believed that rest alone would heal me.

But even in a setting of sylvan beauty my health continued to deteriorate rapidly. I returned to New York and my wife was shocked at my appearance: the swelling in my throat made me look like a bullfrog. She sent me to a holistic doctor in Toronto who gave me almost every alternative treatment in the book: ozone, vitamin and botanical injections, special herbal and nutritional supplements, life crystals, deep thermal therapy, radionics and more. Nothing had any significant impact. I returned to Oregon, and began to suffer from brief blackouts.

One morning when I woke, I had severe vertigo, roaring in my ears, and hearing loss. I sensed I was close to dying. My faith in healing, the whole edifice upon which I built my practice as a chiropractor--was deeply shaken and I became so emotionally fragile that I was unable to withstand any

stress at all.

My wife, Meeta, suspended her Manhattan healing practice to fly out to me. She put me on a diet of raw vegetables and fresh juices. It helped my joint pain, but other symptoms raged on. My life funneled down to one single pleasure: Sleep.

MY LAST CHANCE

My wife and I drove to a bookstore in Portland specializing in alternative healing. There we happened to see a poster advertising an all-day seminar by David Hudson, a researcher I'd heard about in Toronto. Hudson had spent huge sums of money researching a truly wild premise: the idea that there were elements in the periodic table that consisted of only a single atom per molecule. He called them monatomic elements.

According to complex scientific literature cited by Mr. Hudson, these elements could actually generate photons (light particles), and in the body this transmission of light would allow the body to heal itself. (The theory behind this supposition involves superconductivity research carried out by the U.S. Navy on actual living cells, as well as an understanding of how RNA and DNA communicate.)

There were 11 of these monatomic elements, Hudson claimed, and at a

laboratory in Arizona he had been working with a world famous metallurgist, Dr. Sicafoose, who had developed methods to study them. Monatomic elements exist in relatively high concentration in certain plants.

Aloe Vera is one of these plants. According to Hudson, monatomic elements exist within the structure of the mucopolysaccharide molecules in pure Aloe Vera gel. The mucopolysaccharide molecule is a complex carbohydrate, which is many sugar molecules linked together. Mucopolysaccharides have been demonstrated to have a wide range of healing effects.

The long chain sugars have been isolated and extracted by a laboratory in Texas, which has developed a freeze dried extract of the pure mucopolysaccharides, classified by the FDA as an investigational new drug. However, the lab also manufactures the same extract in a powder that contains 60% of the pure freeze dried sugars, and remarkably, this is allowed by the government to be sold as a nutritional supplement.

OVERNIGHT HEALING

Was it a lucky coincidence? In Toronto I had purchased capsules of the mucopolysaccharides, but I hadn't taken them. I went home and emptied thirty capsules into water, drank the mixture all at once, and within twenty minutes felt a profound and incredible energy shift. I could actually watch the light as it began to flow down my arms and legs and

saturated my thymus gland and heart area. Drenched in Light, I sat down and meditated.

Within three days of taking the supplement, I was feeling so much better that I was actually able to go swimming in a river and hike a few miles with my wife. MY vertigo, cramps, pain, fatigue, depression had decreased dramatically. And the lumps in my neck began to shrink.

I could hardly believe that I had stumbled upon the answer to my health crisis. I immediately began to research the scientific literature about Aloe, and discovered that the plant has different lengths of the long chain sugars, which correspond to different healing effects (according to Dr. Ivan Danhof, M.D., Ph.D.). Think of the many different lengths as necklaces. Some of the necklaces have as few as sixty beads, the longest have thousands. The kind of Aloe gel and juice that is typically available in the healthfood store contain only shorter "necklaces" because of a natural enzyme on the aloe leaf that breaks down these long chain mucopolysaccharides unless it (the enzyme) is properly deactivated. The benefits of these shorter length chains is limited to anti-inflammatory properties which is one of the reasons why they're effective in healing burns and sunburns.

Aloe also contains medium size mucopolysaccharide "necklaces" that can help

regulate blood sugar in diabetes, and fight bacteria and viruses. The longest "necklaces" are the ones that can actually boost the immune system.

The freeze dried powder that I took contains all the different lengths of the sugar "necklaces." Interestingly enough, only 2 parts per thousand of the Aloe plant is composed of mucopolysaccharides!

I took 1,000 milligrams--or 1 teaspoon--of the powder a day for four months, then raised the dosage to 4 teaspoons a day for six weeks, and then dropped to a maintenance dose of a quarter of a teaspoon daily.

These dosages were based purely on intuition and sensing the changes in my body: When I first took the powder, I went through a detoxifying phase, and could not tolerate more than a teaspoon a day. Now, because I am much healthier, I don't need more than the maintenance dose, and in fact, if I take more, I don't feel right.

I recently asked my wife what her impressions were at the time I was at my sickest. She said, "What frightened me was how fast you became ill. You went in a downward spiral that just got worse and worse. Before that, you were so vital and involved in life. After you took the Aloe powder I saw such a dramatic change in your health."

Making The Freeze-Dried Aloe Vera MPS Available

I have decided to distribute the product myself at a reduced price in its pure powder form, rather than in the capsules.

Now, through word of mouth, individuals from around the country are contacting me to purchase the product, which I have named, MPS-GOLD. I have started a company, Light Resources Unlimited. to distribute this product.

A woman in South Fallsburg who was diagnosed with AIDS and had a chronic fungal infection for several months took the product; within two weeks the infection was gone. A Vermont woman had suffered from ulcerative colitis for many years, within a few weeks of taking the product she called me to tell me 90% of her debilitating symptoms had vanished.

I recently heard from a Lyme's Disease victim who said on the first day she took MPS-GOLD her energy level improved dramatically. A man from Texas who has been diagnosed with pancreatic cancer is feeling much better and has weight gain after only two weeks of taking the product.

I've found that MPS-GOLD is effective for spiritual healing as well. It's as if light works on all levels. A man came to me after meditating in an ashram in India for eight years. He had returned to New York in good health, but the stress of living in the city had caused his health to

collapse. He told me that as soon as he took the product this energy field expanded and he returned to good health.

I believe that the Aloe plant holds great healing potential. I hope to offer other individuals the opportunity to experience similar healing breakthroughs.

David Wheeler, D.C. is a Network Chiropractor. He can be reached at 20 West 20th Street, Suite 803, NY, NY 10011 (212)741-8187

Fundamentals of Aloe Vera

Mucopolysaccharides (MPS)

----DR. Ivan Danhof, M.D., Ph.D.----

The Aloe Vera mucopolysaccharide (MPS) is a long chain sugar molecule composed of individual mannose and glucose sugar molecules connected together. There is wide range in the size of the mucopolysaccharide molecule.

The varying sizes determine their healing properties:

1. Small/50-600 molecules. Reduces inflammation--which is involved in such diseases as ulcerative colitis, arthritis, and gastric reflux.

Also helps with the reduction of blood sugar with both type I and II diabetes.

2. Medium/up to 1500 molecules. Where as vitamins and minerals can only function outside the cells, mucopolysaccharides are very effective intracellular antioxidants and free radical scavengers--very important in preventing and treating arteriosclerosis, heart disease and Parkinson's disease. With the ever increasing pollution on the planet and loss of nutrients in the soil, the increase in free radicals and loss of cellular oxygen will only become worse with time. This makes Aloe Vera mucopolysaccharides even more important than ever.

3. Large/up to 5,000 molecules. Has a direct anti-bacterial and anti-viral effect. Important with all the new infectious diseases cropping up and the older ones becoming more virulent from long term use of antibiotics.

4. Very large/up to 9,000 molecules. The very large molecules are immune modulating, which have a powerful healing effect on AIDS, cancer and many different immune system disorders. It is also this large molecule that causes the body to produce a natural chemical, tumor necrosis factor, that functions to shut off the blood supply to tumors.

The mucopolysaccharide molecule is very fragile. When the leaf is cut, enzymes in the plant are released which breaks down the long chain sugars of the mucopolysaccharide into simpler sugars, which then results in a loss

of the different healing properties. There are very few products on the market that can claim to contain stabilized mucopolysaccharides.

Stabilization requires extraction of the mucopolysaccharides in a freeze dried form; but also the process must include a way to deactivate the enzymes released in the plant when it is cut. Furthermore, the high concentration of mineral salts found in Aloe Vera gel must be separated from the final extract because they are very irritating to the gut. An Aloe product must be very soothing to the gut to promote healing.

Synergism is a property that many of the large Aloe companies tout who do not have the patented technology to extract stabilized mucopolysaccharides. In other words, many of these companies claim that all 200 of the various ingredients found in Aloe Vera must be present for healing to occur. But none of these claims have any basis in scientific research, while there is abundant scientific research to prove that the mucopolysaccharide is the sole ingredient responsible for all the healing properties attributed to Aloe.

REMEMBER IT IS THE POLYSACCHARIDE CELLS WHICH REACT TO NEGATIVE IONS. IT IS THEIR PEREPHERY CHARGE WHICH IS CHANGED, CREATING THE FARADAY AFFECT TO THOSE GIVEN CELLS SATURATED BY THE 8 POSIBLE ELECTRONS (ECSTASIS). ALLOWING ONLY 8 HZ WAVES IN (COHERENCE: LOVE: HARMONY), AND ALLOWING ACCESS TO THE SUPERCONDUCTIVE INFORMATION OF THE CELLS. HERE ALOE VERA OFFERS SOME CLUES.

ALOE & Cancer Research

Research by the immunologist Ian Tizard, Ph. D. and virologist Maurice Kemp, Ph.D. from Texas A&M led to the discovery that Aloe mucopolysaccharide is taken into a special leukocyte, the macrophage, and this cell is stimulated to release messenger molecules called cytokines (interferons, interleukines, prostaglandins, tumor necrosis factor and stem-cell growth factors.)

Tumors release a chemical that attracts blood circulation so that malignant cells have a supply to the tumor and it therefore dies. All of the immune modulating effects from Aloe contribute greatly to the prevention and healing of malignant cells.

Colitis and Crohn's Disease

In 1986 there was an initial FDA sanctioned clinical pilot study for treating ulcerative colitis and Crohn's disease with Aloe mucopolysaccharides, with very encouraging results. In 1993-94 a six center clinical study was conducted with Vanderbilt Medical Center Gastroenterology Department. The results were encouraging enough to continue with a second phase that began in 1995.

Proven Non-Toxic

The Aloe Vera mucopolysaccharide molecule is a complex carbohydrate, a food chemical, and is totally non-toxic. Gallen Marshall, M.D., Ph.D., professor of immunology and allergy at the University of Texas Health Science Center in Houston injected 50 medical students in 1993 with Aloe mucopolysaccharides, with FDA approval, and confirmed that there were no toxic side effects (no toxicity in the liver, bone marrow, kidneys and cells in general).

Composition:

MPS-GOLD is a freeze dried powder, extracted by a special patented process from freshly harvested, organically grown Aloe Vera leaves. It is composed of approximately 60% stabilized longchain mucopolysaccharides and 40% inactive (inert) plant substances. It contains no added fillers or preservatives.

Comparisons:

Only two thousandths of one percent (.2 or 2 parts per thousand) of commonly available (store bought) Aloe Vera gel is long chain stabilized mucopolysaccharides. It takes approximately 7 gallons of these Aloe Vera gels to make the equivalent - in terms of long chain mucopolysaccharides - of one ounce of MPS-GOLD!

To Order by Visa or Mastercard Call:

1-800-760-3530

or 212-741-8187 outside of the US

If you would like to order MPS-GOLD refer to price list below for the quantity you desire. For powerful healing effects, higher doses are recommended. At three grams a day, one ounce will last a month. For general healing or maintenance, lower doses are sufficient. At one gram a day, an ounce lasts about four months.

Included with each order are dosage instructions tailored to specific healing needs, a review of the scientific literature and a special audio tape on Aloe mucopolysaccharides by the foremost expert, Ivan Danhof, M.D., Ph.D.

PRICES:

- * 1/4 ounce: \$75.00
- * 1/2 ounce: \$99.00
- * 1 ounce: \$170.00
- * 3 ounces: \$400.00 (equals \$133.33 per ounce)
- * 6 ounces: \$775.00 (equals \$129.67 per ounce)
- * 12 ounces: \$1500.00 (equals \$125.00 per ounce)

Shipping Charges:

- * One to three ounces \$10.00

* Four to twelve ounces \$14.00

* Over 12 ounces \$16.00

New York residents please add 8.25% percent sales tax.

Make Checks or Money Orders payable to:

Light Resources Unlimited.

20 West 20th Street

Suite 803

New York, NY 10011 USA

VITAMIN C, SEE, SEA C# 261

One of the major nutrient, albeit enzymes, which the human race is an anomaly not to produce themselves, is ascorbate, or Vitamin C. Literally, every animal produces upto 15 gms a day of Vitamin C, and human beings produce ZERO. We are the only beings to be in such a position on Earth (it almost appears to be a deliberate editorship, along with our other anomalies). Vitamin C has overwhelming evidence for stopping most virus's, and even stopping cancer on one injection, and furthermore, literally shrinking tumours. In this domain especially, one can prove a conspiracy is at hand. As even Dr. Linus Pauling, the only single man ever to have won the Nobel Prize two times, was attacked and ridiculed for the rest of his life, for his adamant exposures on the evidence for ascorbate treatment against cancer and other diseases, despite his absolute genius, to include the discovery of the single Helix of the DNA, before Francis Crick's double Helix. With the latest research and evidence, this evidence is now even more overwhelming. What follows now is the ammunition you may need at hand, in order to defend yourself against the silent war, and with which you can actually step beyond the unconscious war programmes inculcated into your doctor, via the Rockefeller and Rothschild sponsored education programmes. Millions do not need to die or suffer, if the following would be known and implemented cheaply by them, without side-effects. Millions of dollars could be saved and placed into solutions for a planet that is in dire straits for solutions. WAKE UP HUMANITY and C.

VITAMIN C:

THE NONTOXIC, NONRATE-LIMITED, ANTIOXIDANT FREE RADICAL SCAVENGER

(C) Robert F. Cathcart, III Allergy, Environmental, and Orthomolecular
Medicine 127 Second Street, Los Altos, California 94022, USA Telephone
415-949-2822. Medical Hypotheses, 18:61-77, 1985.

ABSTRACT

The amount of oral ascorbic acid that a patient can tolerate without diarrhea, increases somewhat proportionately to the "toxicity" of his disease. Clinically, in a disease ameliorated by ascorbate, there is a suppression of symptoms only with very high doses and approximately to that extent which a nonrate-limited, antioxidant_free_radical_savenger, might be expected to affect that disease process if all harmful free radicals and highly reactive oxidizing substances were quenched. In most pathologic processes, the rate at which free radicals and highly reactive oxidants are produced, exceeds the rate at which the ordinary rate-limited antioxidant free radical scavenging mechanisms can quench those free radicals and oxidants. When ascorbate acts as a scavenger, dehydroascorbate is formed; but if the ascorbate/dehydroascorbate (AA/DHA) ratio is kept high (the redox potential kept reducing) until the unstable dehydro- ascorbate undergoes hydrolysis or can be reduced back to ascorbate, the

dehydroascorbate will do no harm. Since even at very high doses, ascorbate is virtually nontoxic, it may be given in the enormous doses necessary to quench almost all unwanted free radicals and oxidants. The wide spectrum of infectious diseases ameliorated by massive doses of ascorbate indicates some common pathologic processes in these diseases.

INTRODUCTION

Based on my experience with over 11,000 patients during the past 14 years, it has been my consistent observation that the amount of ascorbic acid dissolved in water which a patient, tolerant to ascorbic acid, can ingest orally without producing diarrhea, increases considerably somewhat proportionately with the "toxicity" of his illness. A person who can tolerate orally 10 to 15 grams of ascorbic acid per 24 hours when well, might be able to tolerate 30 to 60 grams per 24 hours if he has a mild cold, 100 grams with a severe cold, 150 grams with influenza, and 200 grams per 24 hours with mononucleosis or viral pneumonia. The clinical symptoms of these diseases and other conditions previously described, are markedly ameliorated only as bowel_tolerance dose levels (the amount that almost, but not quite, causes diarrhea) are approached (1-6).

TABLE I - USUAL BOWEL TOLERANCE DOSES (4)

GRAMS PER NUMBER OF DOSES

CONDITION 24 HOURS PER 24 HOURS

normal 4 - 15 4 - 6

mild cold 30 - 60 6 - 10

severe cold 60 - 100+ 8 - 15

influenza 100 - 150 8 - 20

ECHO, coxsackievirus 100 - 150 8 - 20

mononucleosis 150 - 200+ 12 - 25

viral pneumonia 100 - 200+ 12 - 25

hay fever, asthma 15 - 50 4 - 8

environmental and

food allergy 0.5 - 50 4 - 8

burn, injury, surgery 25 - 150+ 6 - 20

anxiety, exercise and

other mild stresses 15 - 25 4 - 6

cancer 15 - 100 4 - 15

ankylosing spondylitis 15 - 100 4 - 15

Reiter's syndrome 15 - 60 4 - 10

acute anterior uveitis 30 - 100 4 - 15

rheumatoid arthritis 15 - 100 4 - 15

bacterial infections 30 - 200+ 10 - 25

infectious hepatitis 30 - 100 6 - 15

candidiasis 15 - 200+ 6 - 25

There was a remarkable lack of systemic difficulties in these patients that

could be directly related to the massive doses of ascorbate. The majority of these patients, ill with some acute or chronic disease, were able to take massive doses of ascorbic acid orally without difficulties. Minor complaints about ascorbic acid such as it causing gas, diarrhea, or acid stomach, while common in well persons even at low doses, were rare in very sick patients. Low or moderate doses (doses substantially below bowel tolerance) usually had no noticeable immediate beneficial effects, but high doses (doses just below the amount that would produce diarrhea in a patient tolerant to ascorbate) would have the effect of markedly suppressing symptoms as the high dose levels were reached. This sudden effect is often quite dramatic clinically and is not usually obtained even partially at lower doses. It is as if a threshold were reached at which point the ascorbate becomes very effective.

Mixtures of mineral ascorbates (calcium, magnesium, potassium, zinc, and sometimes sodium) are used in certain circumstances to increase bowel tolerance for even more clinical effectiveness but do not clearly demonstrate the increasing bowel tolerance phenomenon being discussed here.

Knowledge of the known vitamin functions of ascorbate would not have allowed one to predict these beneficial results. The lack of serious difficulties with these massive doses is surprising.

EFFECT OF ASCORBATE

DETOXIFICATION DRAMATIC IN SELECTED GROUP:

Part of the unexpected benefit at the high dose levels is frequently a feeling of well-being. This feeling of well-being, especially with the more toxic conditions, is despite the gas and diarrhea sometimes produced. If the malaise from the basic disease is great (e.g. mononucleosis, acute hepatitis, viral pneumonia, etc.), the obvious benefit from ascorbic acid is usually so great that the patient usually cares little about the minor gastrointestinal disturbances. Lowering dose levels too soon before bowel tolerance decreases, results in the return of the malaise and other acute symptoms of the disease.

The clinical sensation experienced with the massive doses of ascorbate is one of "detoxification" as a threshold is reached. By raising and lowering the doses, the symptoms of "toxicity" can be readily turned off and on rapidly by some skilled patients.

I cannot emphasize enough that in "selected" patients (selected only by excellent tolerance to ascorbic acid, good understanding of the principles of determining the flexible bowel tolerance doses, and the willingness to follow directions in fine detail), this effect is invariable, dramatic, and unmistakable. The patient most likely to experience this effect is the psychologically stable, not suggestible, practical, not liking to be sick patient, with a "cast iron stomach." Children and teenagers, much as they

may hate the taste of ascorbic acid in water, make particularly good patients once they experience the ameliorating effects of these massive doses. Infants, upon receiving very large intramuscular or intravenous injections, frequently "detoxify" in minutes to the astonishment and marked relief of their parents.

These feelings of well-being experienced by tolerant patients from the ingestion of massive doses of ascorbic acid are definite clinical indications that no acidosis or other acute toxic metabolic effect is resulting. Massive intravenous doses of sodium ascorbate are even more impressive than oral ascorbic acid, because the beneficial effects are even more dramatic and gastrointestinal gas and diarrhea are not produced. Patients who ordinarily would be relatively incapacitated, can usually remain functional and sometimes even participate in athletics if frequent and massive ascorbate doses are maintained.

Patients must be encouraged to take these massive doses. Patients taking vitamin C on their own, seldom take doses high enough to discover this effect. I do not want to give the impression that this method is easy to use; the mechanics of taking these doses can be very difficult for many patients. Nevertheless, when properly instructed, the majority of patients are able to achieve these effects. If a patient is relatively intolerant to oral ascorbate only because of gastrointestinal complaints, and if his

disease is one that usually responds to oral ascorbate in tolerant patients, and if the severity of the condition warrants the inconvenience and expense, then intravenous ascorbate is indicated.

Such effects of these large doses of ascorbate cannot be readily explained from its known vitamin functions. The spectrum of diseases affected by massive doses of ascorbate is a wonder in itself, but also gives some hint at the probable mechanisms involved. The sudden detoxifying effect experienced clinically only at the very high threshold doses, suggests that ascorbate is participating in chemical reactions where a critical concentration of ascorbate is necessary, or where a certain ratio between ascorbate and certain other reactants must be achieved. The concept that free radicals and other highly reactive oxidants are a frequent factor in pathologic processes (7,8) and that ascorbate is an antioxidant free radical scavenger, could explain much of this.

THE RATE LIMITATIONS OF ANTIOXIDANT FREE RADICAL SCAVENGERS, A CAUSE OF MANY PATHOLOGIC PROCESSES

Chemical reactions involving free radicals and highly reactive oxidants are necessary in the normal metabolism of cells. Metabolic processes utilizing oxygen (aerobic metabolism) which release energy are important examples. Ordinarily, these reactions occur in conjunction with appropriate enzymes or in the proper places within the cells. While it has been documented that potentially harmful reactants leak from their normal cellular confines and

are potentially toxic (9), these rates of leakage are usually low enough for the natural antioxidant, free radical scavenging mechanisms to handle. One of the causes of natural aging may be that some (albeit small) portion of stray free radicals inevitably escape quenching (10). While the human body does contain many free radical scavenging mechanisms for the purpose of mopping up free radicals, I hypothesize that in pathologic processes these rate-limited mechanisms are acutely inadequate to neutralize the volume of free radicals produced. A threshold is reached where these additional free radicals produced, initiate an inflammatory cascade, can cause immune suppression, and can result in degenerative diseases.

EXAMPLE OF A RATE-LIMITED, ANTIOXIDANT FREE RADICAL SCAVENGING PATHWAY

In general free radical scavenging occurs through complex metabolic pathways involving many steps which are rate-limited. Deficiencies of nutrients, vitamins and minerals, which make up the enzymes and coenzymes of these systems can slow down or halt certain pathways.

It is apposite to describe one of these rate-limited, free radical scavenging mechanisms, to give the impression of its complexity and why it is rate-limited. The example chosen involves the glutathione pathway which is possibly one of the most important pathways.

When, for example, a superoxide radical must be destroyed, superoxide dismutase can catalyze its conversion to O_2 and H_2O_2 (11). Ascorbate, nonenzamatically, also converts superoxide to H_2O_2 but is oxidized in the process to the ascorbate free radical and dehydroascorbate. The ascorbate free radical and the dehydroascorbate are reduced back to ascorbate either by NADH (catalyzed by semidehydroascorbate reductase and forming NAD) or reduced glutathione (GSH) (catalyzed by dehydroascorbate reductase and forming oxidized glutathione (GSSG)) (12). Some of the peroxide can be converted to oxygen and water by catalase but most will be destroyed by a glutathione-requiring enzyme system. GSH (catalyzed by glutathione peroxidase) reduces the peroxide to water but in the process is oxidized to GSSG. The resulting GSSG is reduced by NAD(P)H (catalyzed by glutathione reductase). The resulting NAD is reduced back to NADH by way of the Krebs cycle or resulting NADP is reduced back to NADPH by the hexose monophosphate (HMP) pathway. It is thought that commonly the rate-limiting step in the last series of reactions is that catalyzed by glutathione peroxidase and its cofactor selenium, but other substances which could limit all this are the vitamin E, vitamin C, vitamin B2, vitamin B3, cysteine, etc. Note: the ascorbate used in this example is as in the vitamin C sense; the small amount available is oxidized to dehydroascorbate and then must be reduced back to ascorbate by the pathway described, to be reused as ascorbate. One can easily see how this mechanism and similar mechanisms could be overwhelmed by a toxic pathogen liberating free

radicals or by an inflammatory cascade regardless of its cause.

FREE RADICAL SUPPRESSION OF THE IMMUNE_SYSTEM, COMMON
TO MOST INFECTIOUS DISEASES, NEUTRALIZED BY ASCORBATE

I further hypothesize that the pathogens of most acute infectious diseases depend upon free radical toxicity to defend themselves against immediate destruction by the immune system. If a pathogen produces free radicals at a rate sufficient to exceed the rate at which the host can produce free radical scavengers to protect the immune system, the pathogen will be free to invade and multiply. The more toxic pathogens produce more free radical toxins than just necessary to suppress the immune system. The spill over of free radicals reaches a threshold where an inflammatory cascade in the tissues affected, is initiated.

Neutrophils liberate free radicals and highly reactive oxidants both intracellularly and extracellularly in their attempt to destroy pathogens, in the process termed the respiratory burst (13-18). The respiratory burst consumes NADPH which must be continually restored if the respiratory burst is to be maintained. Restoration of NADPH supplies is accomplished by way of the HMP pathway, by various rate-limited enzymatic mechanisms.

I suggest that if rate-limited enzymatic processes or the limited availability of the antioxidant free radical scavenging mechanisms of the

leukocytes, superoxide dismutase (18), catalase (20), glutathione peroxidase, and glutathione (21-23), fall short of being able to contain and direct free radicals and reactive oxidants toward the pathogen, that failure causes the free radicals to backfire, damage the host itself, and initiate an inflammatory cascade.

If a critical tissue concentration of free radical scavenger could protect the immune system from the free radicals produced by the pathogen, and would assist the leukocytes in modulating their own free radical generation, the immune system might be expected to prevail and destroy the pathogen rapidly by direct phagocytosis. If such a scavenger were found to be effective in large numbers of infectious diseases, it could imply that there was a common mechanism of free radical suppression of the immune system operative in all these diseases. Until such a free radical scavenger were recognized to exist, the commonality of such a mechanism to all these diseases might be overlooked. I hypothesize that ascorbate is, in fact, such a free radical scavenger when used in the doses being discussed. Its effectiveness in a wide spectrum of infectious diseases is evidence of the common mechanism many pathogens have of suppressing the immune system.

By neutralizing virtually all unwanted free radicals and toxic oxidants, massive doses of ascorbate can be made to protect the immune system to such a degree that early in acute viral diseases, the immune system can usually

destroy the pathogen within hours. When used later in the course of an acute viral disease where the pathogen has established itself intracellularly in significant numbers of cells, massive doses of ascorbate can protect the immune system, suppress most symptoms, and prevent secondary complications until the immune system destroys the pathogen by secondary means such as with antibodies.

I have found that massive doses of ascorbate work synergistically with appropriate antibiotics when used against acute bacterial diseases, and broaden the spectrum of the antibiotics considerably. I have not been able to explore thoroughly the extent to which ascorbate can be used alone in bacterial diseases, but I have had some serendipitous clinical evidence that certain bacteria do very poorly in the face of massive doses of ascorbate even where antibiotics were not used.

Conditions involving indolent bacterial infections such as chronic bronchitis, sinusitis, otitis media, tonsillitis, osteomyelitis, nonspecific urethritis, etc., are frequently cured by massive doses of ascorbate.

I hypothesize that probably induced localized scurvy plays a decisive part in a pathologic equilibrium set up between the chronically infected tissue and the pathogen. When the induced scurvy is eliminated by driving

tissue levels of ascorbate up above a certain threshold, the immune system usually rapidly eliminates the infection and the affected areas heal.

Where allergies in combination with infections play a major role, massive doses of ascorbate are helpful but continuing maintenance doses will be required. In this situation, continuing blockade of the allergically-induced inflammatory cascade must be maintained.

With recurrent herpes virus infections, very high maintenance doses of ascorbate seem to prevent some attacks, and bowel tolerance doses will shorten and reduce the severity of attacks. A topically applied ascorbate paste (ascorbic acid or sodium ascorbate and water) (24) appears to be particularly effective on herpes simplex. In chronic hepatitis, ascorbate may not cure the condition; nevertheless, massive doses of ascorbate will usually ameliorate the condition; and I have evidence that shedding of the virus may stop. I have not determined whether the patient will resume shedding of the virus if large doses of ascorbate are discontinued. In conditions where a virus has become well established intracellularly, there are some limitations on the ability of ascorbate to assist the immune system.

ASCORBATE IN AIDS

More recently, I have found ascorbate useful in the management of the

acquired immune deficiency syndrome (AIDS). The AIDS patient who has already suffered a marked suppression of helper T-cells, presents a clinical problem of management similar to a bubble baby. If, in addition to the other measures described in my previous reports (24,25), the patient takes bowel tolerance doses of ascorbic acid orally almost every hour (intra- venously in emergencies), he may remain clinically well despite the continuing severe suppression of the helper T-cells. All this must be started before multiple infections riddle the patient's body with excessive sources of free radicals. There have been suggestive anecdotal cases which indicate that in the prodromal period, before the destruction of the helper T-cells, there might be avoidance of the development of the AID syndrome by this program. Confirmation of this possibility awaits long- term laboratory follow-up. There is evidence that a retroviral infection in cats, the feline leukemia virus, can be cured in the prodromal stage with large oral doses of ascorbate used in combination with other nutrients (26).

ASCORBATE, A NONRATE-LIMITED, ANTIOXIDANT FREE RADICAL SCAVENGER

It is my hypothesis that what makes ascorbate truly unique is that very large amounts can act as a nonrate-limited antioxidant free radical scavenger.

Clinically, ascorbate is virtually nontoxic (27,28,4). But as ascorbate

acts as an antioxidant free radical scavenger in the body, it is oxidized to dehydroascorbate. There are animal experiments that indicate that dehydroascorbate is toxic (29-31). However, dehydroascorbate is not administered directly to humans as it was in the animal experiments.

Whatever dehydro- ascorbate comes to exist in the human body, comes by way of the oxidation of ascorbate, as the ascorbate is utilized to reduce free radicals or other reactive oxidizing substances. The potential of the dehydroascorbate to do damage should be less than the harmful potential of the substances it reduces to become dehydroascorbate (the oxidizing redox potential has been diminished). Therefore a patient should not be expected to be more toxic from the dehydroascorbate formed than he was from the original disease unless there is some peculiar specific sensitivity to dehydroascorbate (see discussion of G-6-PD deficiencies below).

Used in the doses I suggest, there is an even more important mechanism which prevents toxicity from dehydroascorbate. I take advantage of a combination of the facts that even in enormous doses, ascorbate is not clinically toxic, and that dehydroascorbate is only toxic when there is a low AA/DHA ratio.

EFFECTIVE REDUCING REDOX POTENTIAL

AT A HIGH TISSUE THRESHOLD

Several (32-36) have hypothesized and reviewed many of the biochemical

advantages of large doses of ascorbate. Of particular interest are Lewin's calculations and hypotheses (34) that high tissue concentrations of ascorbate to dehydroascorbate can directly reduce various substances (e.g. the disulfides). I doubt that tissue levels of ascorbate achieved with doses much below bowel tolerance are sufficient to significantly accomplish these reductions under pathological circumstances. Clinically however, something very dramatic happens as bowel tolerance is approached. I hypothesize that as a certain threshold ratio of ascorbate to dehydroascorbate is reached, certain direct reductions of substances such as oxidized glutathione and adreno- chrome by ascorbate begin. When a patient is sick or experiencing much stress, the amounts of these substances which can potentially and beneficially be reduced, increases greatly. If ascorbate is not available to reduce these substances, those that escape reduction to nontoxic derivatives by the rate-limited, antioxidant free radical scavenging mechanisms, damage the patient and cause symptoms. Under these circumstances, when made available, large amounts of ascorbate are utilized for these direct reducing purposes. These ascorbate reductions are not rate-limited, and therefore quench the harmful oxidants and free radicals almost instantly.

When the potential need for ascorbate for these purposes is satisfied, the blood level of ascorbate rises and retards the absorption of ascorbate from the gut. Soon, sufficient amounts of ascorbate reach the rectum to produce

diarrhea.

Based on clinical evidence, I hypothesize that ascorbate can maintain this reducing redox potential under very adverse circumstances, but that the doses necessary to do this are enormous by any other standards. This antioxidant free radical scavenging effect of enormous doses of ascorbate seems not particularly contingent upon other nutrients. However, vitamin functions of lower doses of vitamin C are frequently potentiated by and work in conjunction with vitamin A, zinc, selenium, bioflavonoids, and other nutrients which play roles in various defense mechanisms.

Chayen has discussed the significance of redox couples and has emphasized that whether a reaction will proceed left to right, or in reverse, depends upon the ratio of the oxidized to the reduced members of a redox couple. He suggests designing "redox drugs" as a possible way of treating imbalances of oxidation-reduction potentials of critical intracellular systems (37).

WIDE SPECTRUM OF BENEFITS FROM ASCORBATE MATCH EXPECTATIONS FOR A NONRATE-LIMITED, ANTIOXIDANT FREE RADICAL SCAVENGER

I would anticipate that if it were possible to eliminate the vast majority of stray free radicals and highly reactant oxidative substances, the usual inflammatory cascade would not occur following injury or surgery. Pain, complications, and recovery times would be reduced. In conditions resulting from combinations of mechanical derangements, nutritional deficiencies,

immune dysregulations, hemorrhage with release of free radical generating iron and copper atoms, and then secondary inflammatory cascades (e.g. degenerative disc disease, degenerative arthritis, rheumatoid arthritis, ankylosing spondylitis, blunt trauma of the spine, etc.), therapeutic effects could be expected proportional to what might result from blocking of the free radicals and the inflammatory cascade. Reversal of the mechanical and nonfree radical injury could not be expected, although certain healing mechanisms might be enhanced.

Toxic substances, whose mechanisms of action involve free radical generation, e.g. toxic poisons such as snake bites and spider bites, certain drugs, such as barbiturates, chemotherapeutic agents, narcotics, and powerful oxidizing pollutant chemicals, might be neutralized. Conditions triggered by allergic reactions and perpetuated by the inflammatory cascade might be expected to be partially alleviated. Psychological symptoms resulting from oxidative products such as adrenochrome and noradrenochrome (38), would be expected to be ameliorated to a degree.

Tumors invading the body or holding off the immune system by way of free radical toxicity might be expected to respond to varying degrees. As an increasing number of human cancers are recognized as probably being caused and possibly maintained by infectious organisms (e.g. Kaposi's lesions by

the CMV (39), some adult T-cell lymphomas by the HTLV (40), certain cervical and vaginal cancers by the papilloma virus (41,42)), it should not be surprising if such tumors would respond in various degrees to ascorbate. Since any treatment of cancers by a physician with nutritional substances is incredibly a felony in California in 1984, it may be practical to recognize early that a tumor caused by a virus should no longer be considered a cancer (e.g. Kaposi's lesions).

If, to these diseases, we add conditions benefitted which could be caused or aggravated by actual dietary deficiency of vitamin C, or from an acute induced deficiency of vitamin C, there is a very close approximation to the clinical spectrum of disease conditions which in the experience of those actually using such doses (4,26-28,32,33,43,44), appear to be beneficially affected. In a rough way, these conditions are ameliorated to the degree that one might anticipate if this ideal mechanism of being able to quench all stray free radicals and highly reactant oxidative substances, were actually accomplished.

GLUCOSE-6-PHOSPHATE DEHYDROGENASE (G-6-PD) DEFICIENCIES

There is fear that ascorbate given in large amounts to patients with G-6-PD deficiencies would cause hemolysis (45,46). In a case where a black man with G-6-PD deficiency who sustained a burn of one hand was given 80 grams of ascorbic acid intravenously on each of 2 consecutive days, the patient

subsequently suffered hemolysis, renal failure, a stroke, coma, and then death (46). There are available for intravenous use, solutions of actual ascorbic acid rather than sodium ascorbate; ascorbic acid, in my opinion, should never be used in any large amount intravenously. It must be buffered to reduce the acidity. There are also preparations labelled vitamin C that contain preservatives which also should never be used. It was not clear from the article what preparations had been used.

The sequence of reactions whereby certain drugs cause hemolysis with G-6-PD deficiency is poorly understood. It appears that G-6-PD deficient cells lack a mechanism to regenerate reduced glutathione (GSH) from oxidized glutathione (GSSG) and that this lack may result in several biochemical alterations, the final result being hemolysis of the red cells. The maintenance of glutathione in the reduced state (GSH) is probably the most important function of the HMP pathway. It may be that the hemolysis caused by certain drugs is initiated by the drug forming either free radicals or hydrogen peroxide. When peroxides are reduced back to water, GSH is oxidized to GSSG, a reaction catalyzed by glutathione peroxidase. Ordinarily the GSSG is reduced back to GSH by NADPH, a reduction catalyzed by glutathione reductase. The resulting oxidized NADP is reduced back to NADPH in the first step of the HMP pathway, as glucose-6-phosphate is oxidized to 6-phosphogluconolactone. This critical reaction is catalyzed by G-6-PD. G-6-PD deficient cells may be expected to accumulate peroxides

which could then oxidize other red cell components (see review in 47).

As discussed previously, if the AA/DHA redox potential is kept reducing enough by high enough concentrations of ascorbate, it should directly reduce the GSSG to GSH. I hypothesize that this mechanism should compensate for the lack of G-6-PD; but I would offer some words of caution. I have no clinical experience with this condition. It is apparent, however, that in the case reported that the redox potential was not kept consistently on the reducing side throughout the course of treatment and that there might have been variables not appreciated at the time which were very important.

With the increasing millions of persons taking large doses of vitamin C, it is inevitable that individuals with G-6-PD deficiencies will take these doses. Serendipitous data should be collected. I would appreciate receiving any well documented case histories.

It is important to understand that G-6-PD deficiencies have a wide range of clinical severities. Severe deficiencies are rare and found in Mediterranean and Asian groups. Blacks have a milder form but with higher frequency of occurrence. There is substantial decrease in the activity of G-6-PD with aging. The possibilities exist that in certain individuals with various degrees and forms of G-6-PD deficiencies that: 1) vitamin C has no deleterious effect; 2) vitamin C has a peculiar effect on that person such

that any significant amount causes hemolysis; 3) vitamin C in low or moderate amounts will produce hemolysis, while massive amounts maintaining a continuing reduced redox potential will not cause hemolysis and will prevent the hemolysis from other causes. (This last possibility will not be determined unless those administering the ascorbate are very aggressive and do not let up the doses until whatever was the cause for which the ascorbate was given in the first place, is completely passed.)

As the immense value of ascorbate in the doses I am describing becomes entirely apparent in normal people, the theoretical possibility of preventing hemolysis in G-6-PD deficient persons subjected to pathologic oxidative stress, which would result in massive hemolysis of blood cells anyway, may be recognized. Meanwhile, I advise that large doses of ascorbate not be given G-6-PD deficient patients. I suggest the possibility that all this may apply to G-6-PD deficiency only to stimulate the collection of data and to suggest research on the subject.

Calabrese has suggested that megadoses of ascorbic acid might pose a hemolytic risk to persons with sickle cell trait and sickle cell anemia because their erythrocytes possess more copper than normal persons and that ascorbic acid markedly enhances copper induced hemolysis (48). Again I suggest that it is possible that if ascorbate is given in large enough

amounts during a sickle cell crisis, it may keep the redox potential of the various problem systems reducing. Vitamin E might further facilitate beneficial effects (49).

OTHER POSSIBLE DIFFICULTIES

One might remain unnecessarily cautious in the use of ascorbate because of my qualification about "tolerant" patients. Any real problems have been rare. I cannot recall any patient who has been damaged by large doses of ascorbate (other than the topical effect of the acid on tooth enamel). Some preexisting gastrointestinal tract difficulties, such as peptic ulcer or colitis, may have been aggravated by topical effects, but advice on these is difficult to give because more frequently the same conditions may be benefitted. All these topical difficulties are circumvented by using intravenous ascorbate.

A high percentage of persons with food and/or chemical sensitivities may have nuisance difficulties with vitamin C. However, attempts to have these sensitive patients take ascorbate should be made because great benefits can often be obtained, particularly from calcium, magnesium, and potassium ascorbate, in many of these patients. Frequently, after the administration of selenium, ascorbate is better tolerated by chemically allergic patients. Levine has suggested that chemically allergic patients frequently benefit from selenium because selenium augments the glutathione peroxidase activity

(8). I have had some clinical evidence that certain chemically allergic patients who force through nuisance problems of low doses of ascorbate, can derive benefits from consistently taken large doses. It may be that chemically allergic persons accumulate dehydroascorbate more readily than others because of a deficiency of glutathione per- oxidase. I had one chemically allergic patient who responded well to intravenous ascorbate until an hour after it was discontinued. She then developed a severe headache that lasted several hours. In retrospect, it seems possible that the intravenous ascorbate was able to maintain a reducing redox potential, which then returned to the oxidizing side after the intravenous ascorbate was discontinued.

True allergic reactions seem always traceable to substances from which the ascorbate is made, or chemicals used in its manufacture, and not to the ascorbate itself.

OXALATE KIDNEY STONES

Oxalate kidney stones have been suggested as a theoretical problem, in that oxalate is one of the breakdown products of ascorbate (50). In my experience clinically, ascorbate in these doses not only does not cause kidney stones but seems to prevent stones in patients who have had them previously. The slight increase in the acidity of the urine from ascorbate (51,52), and the slight diuresis (53) solubilizes calcium salts. I think

that high concentrations of ascorbate, by being bacteriostatic in the urine, should prevent many of the niduses of infection around which oxalate stones frequently form. The increased ascorbate concentration complexes Ca^{++} and thereby decreases the amount of Ca^{++} available to complex with oxalate (34). Here again is the paradoxical situation where with small doses of vitamin C, it is possible that where most of the nutrient is oxidized to dehydro- ascorbate and then some to oxalic acid, it is theoretically possible that there could be a slight increase in tendency to form stones. However, I find it difficult to believe that if this were the case, that this tendency would not have been noticed with the millions taking small doses of vitamin C. I hypothesize that by using the bowel tolerance method of determining the dosages of ascorbate to be taken, that no matter how much dehydroascorbate is formed and hence oxalic acid, the spill of ascorbate in the urine will be kept very high and should prevent oxalate stones.

ANASCORBEMIA AND ACUTE INDUCED SCURVY

I suggest that the enormous draw on ascorbate for free radical scavenging purposes, can exhaust the vitamin C available for known housekeeping functions of the vitamin. I term this condition acute_induced_scurvy. This deficiency starts in the tissues directly involved in the disease; then blood levels of vitamin C drop (anascorbemia); and then tissues distant from the primary focus of the disease become involved. Secondary

complications occur which can be averted by fully satisfying the increased need for ascorbate (4).

A very important part of these very large doses of ascorbate being able to assist the immune system against pathogens is likely that serum levels and leukocyte levels of ascorbate are raised enough to drive ascorbate into the depths of infected tissues. The amount of ascorbate needed to satisfy the enormous potential utilization of ascorbate as an antioxidant free radical scavenger in the depths of the diseased tissues is provided. The shut down of vitamin C dependent housekeeping functions of affected cells and the shut down of vitamin C dependent immune system functions are prevented.

SUDDEN INFANT DEATH SYNDROME

I think that many crib deaths are caused by this acute induced scurvy even before it is evident that the infant is sick with some infectious disease.

Kalokerinos (28) has demonstrated the value of vitamin C in preventing crib deaths. I have seen enormous increases in bowel tolerance to ascorbate in adults several hours before there was any outward sign of their getting sick. It is easy to imagine certain vital centers in an infant failing when suddenly deprived of vitamin C by the ascorbate being used up for acute free radical scavenging purposes. For many reasons, it is unfortunate that the free radical scavenger ascorbate is the same substance as vitamin C. Infants tolerate ascorbate well. In addition to substantial maintenance

doses of vitamin C, even infants should be given large doses of ascorbate when ill. Amounts should be given sufficient to relieve fever, irritability, and other outward signs of toxicity (4).

CONCLUSIONS

While it is not denied that there could be very rare serious complications associated with the use of massive doses of ascorbate, fear of this possibility should not retard use of the substance in patients with normal metabolism. In my experience, the margin of safety (therapeutic index or selectivity) for massive doses of ascorbate as related to significant complications is greater than aspirin, antihistamines, antibiotics, all pain medications, muscle relaxants, tranquilizers, sedatives, diuretics, etc. Not only is the margin of safety of ascorbate extremely favorable but when used with most of these drugs, the combination frequently acts synergistically and has a margin of safety greater than with the drug alone. While ascorbate may block the effects of some sedatives and narcotics, massive doses of ascorbate frequently alleviate the need for those substances.

Clinically, ascorbate in the very large doses described is very effective and safe as part of the treatment of a wide variety of conditions, especially infectious diseases. It is my hypothesis that this clinical effectiveness when a critical threshold is reached, as indicated by bowel

intolerance to ascorbic acid in the form of diarrhea, occurs both because massive doses of ascorbate can act as a nonrate-limited, antioxidant free radical scavenger and because acute induced scurvy is avoided. When high enough tissue levels are reached in tissues directly affected by the disease processes, the redox potential of the AA/DHA system in those tissues is kept reducing; substances such as oxidized glutathione are directly reduced; and stray free radicals are rapidly quenched.

This effect of ascorbate is rate-limited only by the lack of courage of those administering ascorbate or the tolerance of the patient taking it. I hope to increase that courage by pointing out the observed lack of toxicity clinically and the theoretical reasons for that lack of toxicity.

This effect, when understood, opens up a wide range of opportunities to understand certain pathological processes. It is especially important in the case of infectious diseases because of the probable common mechanism of free radical toxicity that many pathogens have of suppressing the immune system. The increasing bowel tolerance to ascorbic acid can be used as a fairly accurate measure of the "toxicity" and activity of certain disease processes.

In toxic conditions, the use of ascorbate by the body for these scavenging purposes, results in such a localized and systemic deficiency of vitamin C

that there is not enough of the nutrient remaining for vitamin C dependent housekeeping functions. I call this condition acute_induced scurvy. This condition can be induced by any stress and is responsible for a high percentage of the secondary complications of many diseases. The magnitude of this scavenging drain on ascorbate is enormous as revealed by the increasing bowel tolerance to ascorbic acid somewhat proportional to the toxicity of the disease process. Only the doses discussed can fully satisfy this need.

I think that most crib deaths are due to acute induced scurvy.

I have hypothesized here that massive doses of ascorbate may paradoxically be of benefit in G-6-PD deficiency, but have urged caution until more data is obtained. Ascorbate, when used with care, can be of great benefit in chemically allergic patients.

Rinse ascorbic acid and carbonated ascorbates off the teeth as prolonged exposure may cause damage to the enamel.

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The Third Face of Vitamin C

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ABSTRACT:

Bowel tolerance to orally ingested ascorbic acid increases with the toxicity of diseases. Bowel tolerance with a disease such as mononucleosis may reach 200 or more grams per 24 hours without it producing diarrhea. A marked clinical amelioration or cure is achieved in many disease processes when threshold doses near bowel tolerance are given. In a sense, it is the reducing equivalents carried by free radical scavengers that quench free radicals, not the free radical scavengers themselves. Ascorbic acid can be dramatically useful in quenching free radicals because it is usually tolerated in amounts necessary to provide the reducing equivalents necessary to quench almost all the free radicals generated by severe disease processes. Vitamin C functions are incidental at these dose levels; the benefit is from the reducing equivalents carried. To the extent that free radicals are either essential to the perpetuation of a disease or

just part of the cause of symptoms, the disease will be cured or just ameliorated. These effects are even more dramatic from intravenous sodium ascorbate.

Keywords: vitamin C, ascorbate, acute induced scurvy, bowel tolerance, titrating to bowel tolerance, the ascorbate effect, free radical scavengers, reducing equivalents.

INTRODUCTION

A clinical experience prescribing doses of ascorbic acid up to 200 or more grams per 24 hours to over 20,000 patients during the past 23 year period has revealed its clinical usefulness in all diseases involving free radicals. The controversy continues over the value of vitamin C mainly because inadequate doses are used for most free radical scavenging purposes. Paradoxically, the non controversial use of minute doses of vitamin C in the prevention and treatment of scurvy has set the minds of many against more creative uses.

I have found vitamin C exceptionally useful in a very high dose range. Its usefulness is in three such distinct realms that I will describe them as the three faces of vitamin C.

1. vitamin C to prevent scurvy

(up to 65 mg/day.)

2. vitamin C to prevent acute induced scurvy (,)

and to augment vitamin C functions

(1 to 20 grams/day.)

3. vitamin C to provide reducing equivalents

(30 to 200 or more grams/day.)()

One might criticize the wisdom of my use of these massive doses but Klenner had successfully utilized them previously (, , ,). The works of Irwin Stone (, ,), Linus Pauling (, ,), and Archie Kalokerinos () have supported many of my observations. It was apparent that in all the studies yielding negative or equivocal results, inadequate doses were used. In some studies, doses barely bordering on adequate, tease the investigator with statistically significant but not very impressive beneficial results.

My early discovery was that the bowel tolerance to ascorbic acid of a person with a healthy GI tract was somewhat proportional to the toxicity of their disease (). Bowel tolerance doses are the amounts of ascorbic acid tolerated orally that almost, but not quite, cause diarrhea. A patient who could tolerate orally 10 to 15 grams of ascorbic acid per 24 hours when well, might be able to tolerate 30 to 60 grams per 24 hours if he had a mild cold, 100 grams with a severe cold, 150 grams with influenza, and 200

grams or more per 24 hours with mononucleosis or viral pneumonia (1, 2).

Marked clinical benefits in these conditions occur only at the bowel tolerance or higher levels. I named the process whereby the patient determined the proper dose as titrating to bowel tolerance. These increases in bowel tolerance in the vast majority of patients normally tolerant to ascorbic acid (perhaps 80% of patients) are invariable. The marked clinical benefits are noted only when a threshold dose, usually close to the bowel tolerance dose, is consumed. I call this benefit the ascorbate effect.

Most patients are started at first with hourly doses of ascorbic acid powder dissolved in small amounts of water. Later, after the patient has learned to accurately estimate the dose necessary to achieve the ascorbate effect, comparable doses of tablets or capsules are also used. Where patients are intolerant to adequate amounts of ascorbic acid orally and the severity of the disease warrants it, intravenous sodium ascorbate is used.

Failures are related to individual difficulties in taking the proper adequate doses. I now have had 22 years to gather clinical experience and to reflect on this phenomenon (, ,).

I want to emphasize the importance of this increasing bowel tolerance with increasing toxicities of diseases. The sensation of detoxification one experiences at these doses is unmistakable.

The effect is so reliable and dramatic in the tolerant patient as to make obvious the fact that something very important, that has not been widely appreciated before, is going on.

THE THREE FACES

Vitamin C probably always functions by being an electron donor. At the lowest dose level (the first face), it is necessary as a vitamin to prevent scurvy. It is essential for certain metabolic functions which are well described and mostly non controversial.

At a second level (the second face) vitamin C is still used as a vitamin but larger doses are necessary to maintain its basic vitamin C functions because the vitamin is destroyed rapidly in diseased or injured tissues where there is an overabundance of free radicals. I described the resulting state of deficiency, if the vitamin C is not replaced, as acute induced scurvy (1, 2). There is ample evidence of this depletion of vitamin C by stress and disease as recently reviewed in the literature ().

Additionally, the recent extensive research on vitamin C has concerned itself with certain functions that may be augmented by higher than minimal doses of vitamin C (20). Strangely, any usefulness of these larger than minimal doses of vitamin C remain mostly neglected by clinicians. This

level is from about 1 to 20 grams a day. Benefits vary from person to person.

At this second level, as in studies reviewed by Pauling (11) and more recently by Hemil" (20), there may be expected a slight decrease in the incidence of colds but a more significant reduction in the complications and the duration of colds. Personally, I am impressed by the number of patients (but certainly not all) who tell me that they have not had a cold for years since reading Pauling's book and taking vitamin C. Patients with chronic infections frequently have those infections cured for the first time. Antibiotics work synergistically with these doses. A surprising number of elderly persons benefit from doses of this magnitude and may indeed have what Irwin Stone described as chronic subclinical scurvy (10).

The third level of doses (the third face) is virtually undiscussed in the literature but is the most interesting. These doses range usually from 30 to 200 grams or more per 24 hours. The most important concept to understand is that while incidentally at these dose levels the vitamin C performs all the functions of levels one and two, it is mostly thrown away for the reducing equivalents it carries (3). With these doses it is possible to saturate the body with reducing equivalents, neutralize the excessive free radicals, and drive a reducing redox potential into involved tissues. Inflammations mediated by free radicals can be eliminated or markedly

reduced. In many instances patients with allergies or autoimmune disease have their humeral immunity controlled while their cellular immunity is augmented (19). To the extent that free radicals are either essential to the perpetuation of a disease or just part of the cause of symptoms, the disease will be cured or just ameliorated.

The list of diseases involving free radicals continue to grow. Infections, cardiovascular diseases, cancer, trauma, burns both thermal and radiation, surgeries, allergies, autoimmune diseases and aging are now included. It is more difficult to think of a disease that does not involve free radicals.

Progressive nutritionists routinely give vitamin C, vitamin E, beta carotene, selenium, NAC, etc. to counter free radicals. I certainly agree with this practice. However, there is one important concept neglected.

In the spirit that if you throw a bucket of water on a fire, it is the water that puts the fire out, not the bucket; it is the reducing equivalents carried by the free radical scavengers that quench the free radicals, not the free radical scavenger itself.

Most of the reducing equivalents utilized by non enzymatic free radical scavengers do not come from the ingested free radical scavengers but come through glycolysis, the citric acid cycle, NADPH, FADH₂, glutathione, etc. Dietary free radical scavengers carry in on ingestion only a small

percentage of the total reducing equivalents carried by those scavengers during their lifetime in the body. After their first pass neutralizing free radicals, the free radical scavenger must be recharged with reducing equivalents made available in the mitochondria.

Consider the following: Early in this study a 23-year-old, 98-pound librarian with severe mononucleosis claimed to have taken 2 heaping tablespoons every 2 hours, consuming a full pound of ascorbic acid in 2 days without it producing diarrhea. She felt mostly well in 3 to 4 days, although she had to continue about 20 to 30 grams a day for about 2 months. Subsequently, all my young mononucleosis patients with excellent GI tracts have responded similarly and have had equivalent increases in bowel tolerance during the acute stage of the disease.

I believe that the loose stools caused by excessive doses of ascorbic acid orally ingested is due to a resulting hypertonicity of ascorbate in the rectum. Water is attracted into the rectum by the increased osmotic pressure and results in a benign diarrhea. With toxic illnesses, the ascorbate is destroyed rapidly in the involved tissues resulting in a rapid absorption from the gut. Of the ascorbate, what does not reach the rectum, does not cause diarrhea. Intravenous sodium ascorbate does not cause diarrhea and, in fact, increases bowel tolerance to orally ingested ascorbic acid while the IV is running. With hypertonicity of the ascorbate

both in the blood and in the rectum, the osmotic pressure of the ascorbate is more equal on both sides of the bowel wall so no diarrhea results. If the diarrhea was caused by other metabolic processes, diarrhea would be caused by intravenous ascorbate.

It should be noted that in some cases of pathological diarrhea, ascorbic acid stops the diarrhea. Presumably in these cases some of the increased destruction of ascorbate is from free radicals in the bowel. However, in most toxic systemic diseases there is no reason to believe that the destruction of the additional ascorbate occurs directly in the bowel, so it is a safe hypothesis that this increased destruction occurs in the interior of the body.

The increased tolerance to ascorbic acid orally provides an interesting and somewhat useful measure of the toxicity of a disease. Probably it is somewhat a measure of the free radicals involved in a disease. I describe a cold that at its maximum makes it possible for a patient to just tolerate 100 grams of ascorbic acid orally without diarrhea, a "100 gram cold." Patients, appearing to be well, who have a tolerance over 20 to 25 grams per 24 hours probably have some subclinical condition which is being hidden by their own free radical scavenging system.

Patients with chronic infections (and a normally strong stomach) can ingest

enormous amounts of ascorbic acid. One of my chronic fatigue patients is functional only because of his ingestion of 65 pounds of ascorbic acid in the past 12 months. In 22 years, I, personally, have ingested approximately 361 kilos (797 lbs) (4.3 times my body weight) of ascorbic acid because of chronic allergies and perhaps chronic EBV.

Considering the reducing equivalents carried by such amounts of ascorbic acid, one can only guess at the turnover rate of the non enzymatic free radical scavengers in a patient acutely ill with a 200 gram mononucleosis. However, one gains the impression that all the non enzymatic free radical scavengers would have to be rereduced many times a day.

AN ANALOGY

Suppose you owned a farm and on one end of the property there was a barn and on the other end of the property there was a water well. One day the barn catches fire and neighbors come with buckets to set up a bucket brigade between the water well and the barn and are putting out the fire when the well goes dry.

My use of ascorbate is like thousands of neighbors coming from miles around, each with a bucketful of their own water, throwing their own water on your fire once, and then leaving.

CONCLUSION

Because of the invariable (in patients tolerant to ascorbic acid) increasing bowel tolerance to ascorbic acid in patients roughly in proportion to the toxicity of their disease, there has to be something happening to ascorbate in the sick patient other than its being used as vitamin C in the classic sense. The amelioration or sometimes cure of different diseases appears related to the importance of free radicals in the perpetuation of the particular disease.

The sudden marked benefit in many disease processes which is achieved at doses near to the bowel tolerance level suggests that a reducing redox potential is forced into the affected tissues only at those dose levels. This ascorbate effect only at the high dose levels is also suggestive that something other than classic functions of vitamin C is involved. This ascorbate effect is more compatible with principles of redox chemistry.

Only a small percentage of the total reducing equivalents donated by non enzymatic free radical scavengers to neutralize free radicals, come in on the ingested nutritional free radical scavengers. Ascorbate is unique in that the body can tolerate doses adequate to supply the necessary reducing equivalents to quench the free radicals generated by severely toxic disease processes. The vitamin C is thrown away for the reducing equivalents it carries. Only in this way can the large amounts of free radicals generated

by the most toxic disease processes be rapidly quenched.

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DHEA is presently being attacked by the corporate establishment. It is listed as a drug in Germany, yet it is throughout nature in Saw Palmetto tree, and when our DHEA levels come down to a certain range, we all would get cancer naturally. With DHEA supplementation, we can expect to expand human lifespan 125 years.

The Cognitive Enhancement Research Institute

DHEA

by Ward Dean, M.D., and Steven Wm. Fowkes

Dehydroepiandrosterone (pronounced
dee-hi-dro-epp-ee-ann-dro-stehr-own), or

DHEA as it is more often called, is a steroid

hormone produced in the adrenal gland. It is the most abundant steroid in the bloodstream and is present at even higher levels in brain tissue. DHEA levels are known to fall precipitously with age, falling 90% from age 20 to age 90. DHEA is known to be a precursor to the numerous steroid sex hormones (including estrogen and testosterone) which serve well-known refunctions, but the specific biological role of DHEA itself is not so well understood. It is difficult for searchers to separate the effects of DHEA from those of the primary sex steroids into which it is metabolized. The apparent lack of any direct hormone action for DHEA has prompted the suggestion that it may serve the role of a "buffering hormone" which would alter the state-dependency of other steroid hormones. Although the specific mechanisms of action for DHEA are only partially understood, supplemental DHEA has been shown to have anti-aging, anti-obesity and anti-cancer influences. In addition, it is known to stabilize nerve-cell growth and is being tested in Alzheimer's patients.

Our understanding of the specific mechanisms of DHEA in metabolism has recently been advanced by the publication of *The Biologic Role of Dehydroepiandrosterone (DHEA)*, edited by Mohammed Kalimi and William Regelson [1990]. This book presents 24 chapters from scientists around the world who are conducting DHEA research. The breadth of the work is impressive. As Drs. Regelson, Kalimi and Loria stated in their introductory remarks, "DHEA modulates diabetes, obesity, carcinogenesis, tumor growth, neurite outgrowth, virus and bacterial infection,

stress, pregnancy, hypertension, collagen and skin integrity, fatigue, depression, memory and immune responses." With this wide range of potential clinical uses, it is amazing that more books about DHEA have not been written.

The introductory chapter, by the editors and Roger Loria, briefly reviews DHEA's biochemistry, endocrinology, and potential clinical uses. They contend that it is perhaps the most significant endocrine biomarker known, and further postulate that all of its effects may be explained by its action as a precursor hormone which provides "a host of steroid progeny with which to maintain the broad balance of host response related to species and individual survival."

DHEA and Cancer

Early reports from England [Bulbrook, 1962, 1971] suggested that DHEA was abnormally low in women who developed breast cancer, even as much as nine years prior to the onset or diagnosis of the disease. Of the 5000 women followed in the study, 27 developed cancer. Most of the 27 had abnormally low levels of DHEA. If low DHEA levels contributed to breast cancer, might the opposite be true? Many years later, Dr. Arthur Schwartz of Temple University found that supplemental DHEA significantly protected cell cultures from the toxicity of carcinogens. Cell cultures usually respond to powerful carcinogens with mutations (changes in DNA), transformations (changes in cell appearance), and a high rate of cell death. But when Schwartz added DHEA along with the carcinogen, all three of these effects were significantly diminished.

Subsequent studies [Schwartz, 1979] identified powerful protective effects of supplemented DHEA for breast-cancer-prone mice. The results of the experiment was clear after 8 months. The control animals were "getting cancer left and right" while the DHEA animals had no tumors. In two later studies with different strains of mice, Schwartz found 75% and 100% reductions in tumor incidence at 8 months of age and 50% and 75% reductions at 15 months of age [Schwartz, 1981; 1984]. DHEA has demonstrated protective effects for cancers of the skin, lungs, bowel, breast and liver. According to William Regelson, "Whenever [DHEA] has been tested in a model of carcinogenesis and tumor induction, DHEA has preventative effects." Although DHEA is now beginning to be tested in human cancer, it is still too early to know whether the successes achieved in animals will be realized in humans.

The Anti-Obesity Factor

At about the same time that Schwartz was investigating the anti-cancer properties of DHEA, Dr. Terrence T. Yen was studying the effect of DHEA on genetically obese mice. Although the DHEA-treated mice ate normally, they remained thin -- and they lived longer than control mice. This "leanness" effect was also conspicuously noted by Dr. Schwartz. In another experiment, Dr. M. P. Cleary found that even middle-aged obese rats lost weight when fed DHEA-supplemented food. Diabetes, a typical complication of obesity, was also dramatically decreased.

DHEA and Glucose Metabolism

Investigators have shown that DHEA inhibits glucose-6-phosphate dehydrogenase (G6PDH), an enzyme that breaks down glucose. There are two glucose-metabolizing pathways in the body, the catabolic, energy-yielding pathway and the anabolic, biosynthetic pathway. G6PDH happens to be the first enzyme in the biosynthetic pathway, the one which results in the synthesis of fatty acids and ribose (the sugar used in making deoxyribonucleic acid, or DNA). In simple language, G6PDH turns glucose into fat.

DHEA's inhibition of G6PDH may redirect glucose from anabolic fat-production into catabolic energy metabolism, thus creating a leaner metabolism. This function of DHEA is well reviewed by Arthur Schwartz and colleagues in their chapter on "The Biological Significance of Dehydroepiandrosterone" in *The Biologic Role of Dehydroepiandrosterone*. They assert that DHEA-mediated reductions in ribose-5-phosphate activity may be centrally responsible for the anti-tumor promoting, anti-tumor initiating, and possibly the anti-atherogenic properties of DHEA. They also note that DHEA 1) produces hepatomegaly (liver enlargement), 2) stimulates liver catalase activity (a protective antioxidant enzyme), and 3) causes proliferation of peroxisomes (cellular organelles which specialize in oxidative processing and the decomposition of hydrogen peroxide). The absence of such influences with synthetic analogs of DHEA (like 16-alpha-fluoro-5-androsten-17-one) prompts Schwartz and colleagues to recommend that such analogs be considered for clinical applications in humans. Toxicity factors still need to be assessed.

DHEA and Appetite

In different experiments, DHEA supplementation has resulted in increased, decreased and unchanged food consumption. Dr. Schwartz found that it is the level of dietary fat influences food consumption. DHEA-treated rats on a high-fat diet ate less food than control rats while those on a low-fat diet ate more.

Since DHEA inhibits G6PDH activity and suppresses the body's ability to synthesize fat from carbohydrate, dietary sources of fat become more important. This can affect changes in appetite. But despite possible increases in food intake, DHEA-treated animals consistently weighed less than control animals. In other words, increases in appetite, when indulged, did not negate the anti-obesity property of DHEA.

DHEA and Aging

The body's production of DHEA drops from about 30 mg at age 20 to less than 6 mg per day at age 80. According to Dr. William Regelson of the Medical College of Virginia, DHEA is "one of the best biochemical bio-markers for chronologic age." In some people, DHEA levels decline 95% during their lifetime -- the largest decline of an important biochemical yet documented.

In animal studies, DHEA extends rodent lifespans up to 50%. The animals not only lived longer, they looked younger. The graying, course-haired controls could easily be distinguished from the sleek, black-haired, DHEA-treated animals.

DHEA levels are directly related to mortality (the probability of dying) in humans. In a 12-year study of over 240 men aged 50 to 79 years, researchers found that DHEA levels were inversely correlated with mortality, both from heart disease and from all causes. This finding suggests that DHEA level measurements can become a standard diagnostic predictor of disease, mortality and lifespan. Furthermore, if animal results hold true, supplemental DHEA may prevent disease, reduce mortality, and extend lifespan in humans.

Enhancing Brain Function

DHEA may also be intimately involved in protecting brain neurons from senility-associated degenerative conditions, like Alzheimer's disease. Not only do neuronal degenerative conditions occur most frequently when DHEA levels are lowest, but brain tissue contains many times more DHEA than is found in the bloodstream. One of the scientists at the forefront of this field of research is Dr. Eugene Roberts who found that very low concentrations of DHEA were found to "increase the number of neurons, their ability to establish contacts, and their differentiation" in cell cultures. He also found that DHEA also enhanced long-term memory in mice undergoing avoidance training. It may play a similar role in human brain function.

Drs. Roberts and Fitten report initial research on "Serum steroid levels in two old men with Alzheimer's disease before, during and after oral administration of DHEA" in the book *The Biologic Role of Dehydroepiandrosterone*. Roberts' and

Fitten's data are the best we've seen regarding acute and chronic changes in numerous hormone levels following various oral doses of DHEA (see adjacent graphs). Because of the short peak duration of DHEA (heavier line in illustration), they recommend that future studies or therapeutic trials use time-release capsules or transdermal patches to provide more uniform delivery of DHEA.

Levels of pregnenolone and 17-alpha-pregnenolone, the direct precursors to DHEA, were too low to be measured in the two patients illustrated, but Roberts and Fitten present data from three other Alzheimer's patients. Their data indicate that in all three patients, "control values for pregnenolone and 17-alpha-pregnenolone not only were below the means for the population controls, they were lower than the lowest values." In other words, the highest of the Alzheimer's patients was lower than the lowest of the population controls. When they were administered 400 mg of DHEA, all three experienced decreased levels of 17-alpha-pregnenolone.

Pregnenolone levels increased in two patients and fell in the third. In the two patients experiencing increased pregnenolone and decreased 17-alpha-pregnenolone in response to DHEA, levels of 17-alpha-pregnenolone rebounded strongly at 24 hours. Roberts and Fitten suggest that "a prolonged inhibition of 17-alpha hydroxylation occurred as a result of continued DHEA intake."

DHEA and Immune Function

DHEA is known to enhance general immune response. Oral and subcutaneous DHEA has been observed to protect rodents against the lethality of RNA and DNA

viruses, and lethal bacterial infections. Drs. Loria, Regelson and Padgett report in The Biologic Role of Dehydroepiandrosterone (DHEA) that a single subcutaneous dose of DHEA is considerably more effective in protecting against infection than oral dosing. Intraperitoneal [within the abdominal cavity] injections were completely ineffective.

Dr. Loria and colleagues noted that subcutaneous dosing did not result in the typical weight loss observed with oral DHEA. Presumably it works by a different mechanism. DHEA has been reported to counteract the thymic involution [shrinking of the thymus gland] and immuno-suppression caused by corticosteroids. But the special role of skin tissues in the immune facilitating properties of DHEA suggest a different mechanism is involved. Cutaneous immune cells, such as Langerhans cells and keratinocytes, are believed to play a role in "immune surveillance" and "antigen presentation." These cells may be a site of DHEA's action. Subcutaneous injection of DHEA results in the "formation of a local deposit leading to a relatively prolonged exposure to the lymphoid system." DHEA skin patches might provide a similar exposure.

The delay in protective effect of subcutaneous DHEA has prompted Loria and colleagues to postulate that a DHEA metabolite is involved in cutaneous immune enhancement. In a recent paper [Loria and Padgett, 1993], they advance androstenediol [5-androsten-3-beta-17-beta-diol] as the active metabolite, the production of which is predominantly localized in the skin and brain. They found that androstenediol was significantly more effective than DHEA (10,000 times more

with coxsackievirus B4!).

Neither DHEA nor androstenediol have any direct (in vitro) antiviral activity. The amount of viral load in heart, spleen, pancreas, liver and blood tissues was unaffected by either DHEA or androstenediol administration. The effect of these steroids appears to be strictly mediated through stimulation of lymphocytes, lymphoid organs, and immune-modulating cytokines [immune hormones].

DHEA: The Buffering Steroid?

DHEA may be unique among hormones for its lack of specificity for hormone receptor sites. Just as vitamin E has never been shown to have a specific metabolic role (it is only proven essential as a general antioxidant), DHEA may serve an equally general purpose. "DHEA is the first example of a buffer action for hormones that I know of," states William Regelson. "It is a broad-acting hormone that only demonstrates itself under a specific set of circumstances. In that way, it is like a buffer against sudden changes in acidity or alkalinity. That is why when you get older, you're much more vulnerable to the effects of stress. As DHEA declines with age, you are losing the buffer against the stress-related hormones. It is the buffer action that [helps prevent] us from aging." The decrease of DHEA with age may result in gradual decline of a system for suppressing enzyme systems responsible for creating the building blocks of new cells, like lipids, nucleic acids (RNA and DNA) and sex steroids. The resulting rise in enzymatic activity in advanced age may be responsible for the proliferative events (cancer) and degenerative disease that become more

frequent in advanced age. In this respect, DHEA might be best considered to be an anti-hormone, which might "de-excite" steroid-sensitive receptors that would otherwise lead to enhanced metabolic activity.

Dosage

Exact dosages for humans have not been clearly determined. Daily dosages vary from 5 to 10 mg to as much as 2000 mg, with 5, 10, 25 and 250 mg being the range for typical tablet and capsule sizes. DHEA is usually split into 2-4 daily doses, especially at the higher dosage levels.

We recommend that dosage be adjusted to bring blood DHEA and DHEA-S measurements towards young-adult levels. These blood tests can be ordered by your physician (don't forget to get your first test before you start taking DHEA).

Conclusion

Because of its generally universal function in human metabolism, DHEA is being associated with numerous human maladies. For example, DHEA has recently been found to have a highly statistically significant correlation with vertebral bone density in postmenopausal women suggesting that DHEA (and other weak androgens) may protect against osteoporosis. This, and its low toxicity, may tend to give DHEA the same panacea stigma that the antioxidants vitamin E and C suffer.

Regulatory Difficulties

In Europe, DHEA is already available as a drug in 5 and 10 mg doses (although it has been hard to obtain). It is used primarily for the treatment of menopause. In the United States, DHEA must first be approved as a drug by the FDA before it can be marketed for medical purposes. Unfortunately, this is an adversarial process (the drug companies advocating for the drug and the FDA demanding proof of efficacy and safety) which takes up to 100 million dollars and a decade to accomplish. Without a patent to restrict competition, prices cannot be raised high enough to recover the investment in the approval process. DHEA is an unpatentable substance.

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Cancer Chemoprevention With The
Adrenocortical Steroid Dehydroepiandrosterone
& Structural Analogs

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Source: J Cell Biochem Suppl 1993;17G:73-9

Abstract: Dehydroepiandrosterone (DHEA) is an adrenocortical steroid that produces broad-spectrum cancer chemopreventive action in mice and rats. In the mouse two-stage skin tumorigenesis model, DHEA treatment inhibits tumor initiation, as well as tumor promoter-induced epidermal hyperplasia and promotion of papillomas. There is considerable evidence that DHEA exerts its anti-proliferative and tumor-preventive action through the inhibition of glucose-6-phosphate dehydrogenase and the pentose phosphate pathway, which generate NADPH (required for mixed-function oxidase activation of chemical carcinogens, as well as for deoxyribonucleotide synthesis) and ribose 5-phosphate (also required for deoxyribonucleotide synthesis). Long-term DHEA treatment of mice also reduces weight gain (apparently by enhancing thermogenesis), and appears to produce many of the beneficial effects of food restriction, which have been shown to inhibit the development of many age-associated diseases, including cancer. Using the mouse two-stage skin tumorigenesis model, we found that adrenalectomy completely reverses the anti-hyperplastic and antitumor-promoting effects of food restriction. It is not unlikely that food restriction stimulates enhanced levels of adrenocortical steroids, such as the anti-inflammatory glucocorticoids and DHEA, which in turn mediate the tumor-inhibitory effect of underfeeding

Smart Basics March 1996 IntelliScope

Precursor Hormones That

Feed The Tree of Life

In April Smart Basics announced that we now carry DHEA (dehydroepiandrosterone) in 10, 25 and 50 mg. capsules. This is pharmaceutical-grade DHEA, assayed at 101% purity. The extra 1% is an artifact of the laboratory assay procedures. We prefer to be painfully truthful when we say our DHEA is 99.8% pure (the difference reflecting the slight amount of pregnenolone precursor used as the base). Smart Basics DHEA should not be confused with the Dioscorea (Wild Yam) extracts that have been on the market for some time now. While Wild Yam products have been marketed as potential precursors for the body's production of DHEA, we have yet to see a single study where DHEA-S levels have been elevated by one of these products.

We've also recently introduced PREGNENOLONE, a naturally occurring metabolite of cholesterol that acts as a precursor to DHEA and other steroid hormones. Animal research indicates that pregnenolone possesses memory enhancing activity approximately 100 times higher than that of other compounds with similar effects. Used in the 1940's for the treatment of arthritis, pregnenolone has a long history of use in humans without toxic side effects.

DHEA, or dehydroepiandrosterone, is produced by the adrenal glands, and is the most abundant, naturally-occurring hormone in the human body. DHEA is often referred to as the "Mother Hormone" because our body can convert it upon demand into a host of other necessary health-enhancing hormones such as estrogen, testosterone, progesterone, and corticosterone. DHEA blood levels reach their peak around age 20, then decline in a linear fashion, making it one of the most reliable markers for measuring biological aging. By age 80 DHEA blood levels have declined as much as 95%, signaling the onset of the aging process.

"DHEA is most abundant in the human bloodstream. Research has found it to have significant anti-aging effects. DHEA levels naturally drop as people age, and there is good reason to think that taking a DHEA supplement may extend your life and make you more youthful while you're alive. Additionally, DHEA may be an important player in cognitive enhancement."

- Dr. Ward Dean, M.D.

More than just a precursor for the synthesis of other hormones, scientists have also identified specific body cells designed to bind to DHEA. This receptor function indicates that DHEA plays a far more direct role in human health than was previously recognized. There have been over 2,500 published papers documenting DHEA's multiple benefits, but the most recent paper studied the quality of life enhancing effect of this natural hormone: "DHEA will improve the quality of life over a longer period and will postpone some of the unpleasant side effects of aging,

such as fatigue and muscle weakness." The report also stated that those patients receiving DHEA supplements slept better, had more energy and were better equipped to handle stress compared to the placebo group not receiving the DHEA.

The potential benefits of DHEA have been known to the scientific community for over 20 years, but this is the first placebo controlled human study conducted that sought to assess the therapeutic benefits of DHEA replacement therapy. We'll have more on this and other studies next month.

" DHEA is currently being investigated as an anti-aging hormone. New evidence suggests this hormone is so beneficial that it may turn out to be the most important advance of the decade."

- Dr. Alan R. Gaby, M.D.

To offer a more balanced view of DHEA, especially in light of the many "miracle" effects commonly attributed to this supplement, Jim English recently had the opportunity to interview Steven Wm. Fowkes of CERl, (Cognitive Enhancement Research Institute). In addition to being the director of CERl, Mr Fowkes also edits the monthly newsletter, Smart Drug News. Steve has consistently been on the forefront of nutritional science and supplement development, and in the following interview addresses many questions regarding the use of supplemental DHEA and Pregnenolone, bringing a balanced view to the topic. We hope the following information will help to cut through the usual marketing hype to aid our clients in

assessing not only the possible benefits, but the potential risks associated with these supplements.

Jim: Steve, thank you for taking the time to speak with us. To start out, what exactly is DHEA?

Steve: DHEA is a metabolite of cholesterol that acts as a precursor to the sex hormones estrogen and testosterone. DHEA is an important raw material from which the body manufactures hormones which are very important to normal physiological functions. DHEA levels normally decline markedly with age, so we're interested in knowing if supplemental DHEA may have health-enhancing or anti-aging properties.

Jim: You're referring to the body's natural production of DHEA?

Steve: Yes. The enzymes that convert cholesterol into pregnenolone limit the amount of sterols and steroids the body produces. Furthermore, these enzymes decrease with age.

Jim: So, pregnenolone is actually a precursor to DHEA?

Steve: Exactly, and all other steroids. If you think of the steroid synthesis pathways as a tree, cholesterol is the root system, pregnenolone is the trunk of the tree, and

DHEA is one of the main branches.

Jim: And the other sex steroids?

Steve: Estrogen and testosterone-and the corticosteroids-would be the crown of the tree, the leaves. Dihydrotestosterone is maybe one of the leaves that has turned yellow and is about ready to fall off the tree (laughs).

Jim: It needs to be pruned-that's a rather pastoral picture.

Steve: There's also aldosterone, which is used to regulate sodium and blood pressure in the body. Another main branch off the trunk would be progesterone, from which the corticosteroids are produced.

Jim: Isn't progesterone another precursor to the main sex hormones?

Steve: It can be, although typically it doesn't go that way. You can think of it as a place where the tree branches and then rejoins, but that rather stretches the tree analogy a bit.

Jim: Can you define some of the more common age-related health problems that can occur from a decline in the body's production of DHEA.

Steve: Well, we don't really know at this point in time what primary function DHEA has in the body. We know it has a precursor function, but there may be other direct effects that DHEA can have in and of itself. DHEA doesn't just sit there, inert, waiting to be converted into something else; it has an effect. Some of the effects that we know about are relatively indirect. For example, DHEA provides nutritional support for the body's repair mechanisms. In this case it has an anti-cortisol effect, so it moderates the potency of cortisol to minimize the damage that may be caused by stresses.

When you get injured or suffer stress, your body produces cortisol, and unrestrained cortisol levels can have a profound effect not only on our healing ability, but the immune system overall. If you get stressed-out, your body produces cortisol, and the degree to which we lose control of cortisol production can interfere with our immune system, the body's natural repair mechanism. In a sense, elevated cortisol levels cause accelerated aging and aggravate control of free radicals.

DHEA is also important for the modulation of estrogen. And because DHEA can produce estrogen and testosterone, there may be a downside for people who over-convert DHEA into estrogen or dihydrotestosterone. I think that's the real concern with high-dose DHEA. If you are merely taking a physiological replacement dose of DHEA in the range of 10-30 milligrams, then the DHEA may not go gushing down those other pathways. In other words, I don't think high DHEA levels are in themselves much of a risk, but the enzymes that can convert DHEA into other

steroids could go into overdrive and cause problems. DHEA dosages in the hundreds of milligrams range could cause dramatic increases in dihydrotestosterone or estrogen levels, and that's why it's important to have medical supervision with high-dose DHEA.

Jim: Would someone taking DHEA in 25 milligram doses specifically need to test blood serum levels to measure their increase in DHEA levels?

Steve: I don't think it's absolutely necessary, but I think it's wise. Even at 25 milligrams, there could be significant increases in dihydrotestosterone or estrogen that could be aggravating factors in people with benign prostrate hypertrophy (BHP) or risks of cancer.

Jim: Particularly breast cancer which we know is estrogen respondent.

Steve: And estrogen in men should not be ignored; men get breast cancer, too. In my opinion, you don't have to measure DHEA or DHEA-S for safety reasons. DHEA itself is minimally toxic. Even an acute dose of 10-20 grams would probably would have minimal toxic effects on people. Natural DHEA levels vary dramatically between people, maybe even by a factor of 20 in people of the same age. If you compare teenagers and elderly adults, you're going to find them straddling a huge range. So DHEA itself is not a toxic agent that we need to be concerned about. We do assume that DHEA and DHEA-S levels indicate to some degree the appropriate

amount, that as long as we do not push it way above normal, we are not going to have downstream effects. But that may not be true. We may, at fairly moderate levels of DHEA, convert too much of it into testosterone and other steroids. That conversion process could vary widely among people, and that's really what we should be looking at!

Using the tree analogy, we shouldn't be looking at the diameter of the DHEA branch, we should be looking at the growth of the crown of the tree. Although it is a more difficult process to measure all of the steroids, I think that it is clinically warranted when high-dose DHEA is indicated.

We shouldn't be prejudiced by sex stereotypes. Women make testosterone and men make estrogen. So it's important to look at all the hormones to know what's going on. For women, a little extra testosterone increases their libido and their enjoyment of life, and that's often a good thing. But if women take 50 or 200 mgs, too much testosterone can make them uncomfortable libido-wise or can produce masculine characteristics, like a deepening voice or facial hair growth. So women should definitely be careful of those issues. There are significant biological consequences of taking DHEA, and just because some of them are beneficial does not mean it should be used like candy.

Jim: Most people I've spoken with want to increase their energy levels to those closer to those they experienced as adolescents. Are there any specific guidelines people

should follow?

Steve: One factor is how far back you want to push it. The radical approach is to push DHEA back to age twenty. My advice is to push it back ten to twenty years younger-so if you're 50, you might want to shoot for a 30-year-old DHEA level-because there may be downstream problems. In other words, the way in which the body converts DHEA into testosterone, dihydrotestosterone and estrogen may change with age, so it may be the case that as we get older we have more of a tendency to produce dihydro-testosterone and estrogen and less of a tendency to produce testosterone.

Jim: And that could exacerbate the kinds of problems we were talking about earlier.

Steve: Like BPH in men, and endometriosis and breast cancer in women. We don't have enough experience with DHEA to say absolutely that there is no risk in humans.

Jim: What would you recommend as a dosage for a normal, healthy individual starting out taking DHEA?

Steve: One 25 mg capsule first thing in the morning (or right before bed) is the standard recommendation. For those getting medical supervision, they may want to do it at both times. There may be some usefulness in exploring 5-15 mg dosages.

Jim: Is there any problem with taking DHEA with food?

Steve: It's best to take it on an empty stomach. The liver gets rid of 50% to 90% of DHEA, and I think that taking it with food tends to increase the percentage of loss. I think it's best taken on an empty stomach first thing in the morning or right before bed.

Jim: Personally I find DHEA to be pleasantly stimulating so I would likely avoid taking it right before bedtime.

Steve: Not everybody has that reaction. That's one difficulty with DHEA; you can't really tell people what they should expect. Some people don't notice anything at all - I'm like that. A fair number of people notice some hard-to-define feelings of improved well being.

Jim: Now let's talk a bit about pregnenolone, which you mentioned earlier as the direct precursor to DHEA.

Steve: Pregnenolone probably has more pronounced cognitive effects. Pregnenolone and progesterone are produced in fairly large quantities in the central nervous system, which is unusual given that it could be transported from the liver or adrenal glands. The brain must have a special need for pregnenolone. Amounts are fairly large when we're young and our brains are rapidly growing. Also, this may account

for Dr. Eugene Roberts observations that even minute quantities of pregnenolone as small as a few hundred molecules have a very potent effect on the ability of mice to learn and navigate mazes¹. That's an exceedingly small amount of material.

Jim: Would this increase memory in a person taking other cognition enhancing products such as piracetam or hydergine?

Steve: There's research that suggests that's the case with piracetam, (2-4) and I suspect it would be the same with the other cognitive enhancing products. I suspect that this is one of the reasons that Alzheimer's studies using piracetam have not been fruitful. Alzheimer's is known to be characterized by exceedingly low sterol and steroid levels. Therefore, you would expect that this would undercut the piracetam mechanism. Also, we might expect the combination of piracetam and pregnenolone would be worth trying.

Jim: When dealing with pregnenolone, would you also recommend that one get tested by a doctor to establish a baseline to measure one's progress?

Steve: Yes, because your dealing with the same pathways. Pregnenolone is amazingly safe. I think Dr. Ray Peat recounted an episode where he took a heaping tablespoon of pregnenolone - and nothing happened. So I would worry only about the downstream effects.

The advantage that pregnenolone has is that you're not "nesting" in only one side of the tree. Pregnenolone is not committed to any specific steroid pathway. As long as your body doesn't have some kind of screwy imbalance in terms of the way that steroids are metabolized, you're feeding everything with pregnenolone. Unless I know otherwise, I would trust the wisdom of the body to balance it out.

Jim: So basically the body can determine the best use of pregnenolone as it disseminates it throughout the body.

Steve: And you can measure it by measuring before-and-after DHEA levels. When you are taking pregnenolone, DHEA is a downstream hormone.

It's important to realize that sex steroids are hundreds of times more potent biologically - in terms of dose - than pregnenolone or DHEA. That's why I think we need to pay more attention to what's going on with these end hormones.

Jim: Should someone who is in their 40's, 50's or 60's feel at high risk from taking a 10 mg capsule of pregnenolone or 25 mg of DHEA? What I'm trying to determine is how necessary is it to go out and get the blood studies, especially if you have a doctor who doesn't really know what you're asking for.

Steve: I think the risks are minimal when you're dealing with replacement dosages, i.e., less than the amount your body would produce if it were healthy. When the

DHEA and pregnenolone levels are within the normal range of what the body would be producing at one's general state of age, that's a fundamentally benign state of affairs. When you start dealing with dramatic increases in DHEA and/or pregnenolone, then the issue changes dramatically.

Jim: I know of people that are taking 600 mgs of DHEA a day; that strikes me as exceedingly high.

Steve: It is. I know people who take from 500 to 2,500 milligrams a day, but they are typically HIV positive with abnormally low DHEA levels who are dealing with serious immune system dysfunction. It is not clear to what degree this benefits or harms them. I believe that estrogen is very counter-productive in HIV positive people and that it has an immunosuppressant effect. It has, at the same time, cognitive enhancing effects because of its neurotoxicity, so it stimulates neurons and makes people more awake and more alert, but in doing so causes damage like that of cysteine or MSG would do in excess.

Jim: In other words, you're getting a temporary benefit but your accelerating the damage at a much higher rate.

Steve: At least causing stress, even if no overt damage is done. I don't know the mechanism of that excitotoxicity, but I believe it is direct. I've looked into aspartame excitotoxicity and how it relates to pyroglutamate and piracetam, but I haven't

researched estrogen yet.

Jim: Lets take a little side step here because you raise the interesting issue of aspartame. We have one or two products which contain very small amounts of aspartame. Some of our customers are very concerned. They won't take aspartame in any amount.

Steve: It's a choice. As long as people are informed of the potential risks, that's fine. My experience is that aspartame sensitivity varies dramatically from person to person. There are people who can take it with minimal immediate consequences. Others take it and have immediate overt symptoms, like headaches, blood pressure changes, ringing in the ears, vision problems or seizures. They just have to stay away from it, period.

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The following is an abstract written by the inventor of CellFood--Everett L. Storey.

Even Albert Einstein gave recognition to Storey for his work with the hydrogen and oxygen molecule.

CELLFOOD... THE COMMON COLD... VIRUSES & CANCER

by Physical Chemist & Microbiologist Everett L. Storey

In the list of 78 essential elements, the only elements with more than one tenth of 1% volume are oxygen, hydrogen, carbon and sulfur. Concentration is Not a key to success in Advanced Medicine. Greater dilutions seem to provide more electron and deuteron activity of the constructive type.

With this array of useful elements, the human body can be revitalized. Damaged tissues can, with proper exercise and a nutritional diet, be effectively and safely rebuilt. Cancerous tissue wilts and

disappears, flushed away with other dead cells due to the fluid rich with magnesium and nascent oxygen released into the bloodstream.

The mind takes control of body functions induced by the electrical currents moving through the fully conductive nervous system.

Just as weight control calls for a new lifestyle... the fight against the common cold...viruses and malignancies must be fought each day with full resources and all-out dedication. Unfortunately cold germs and viruses feed the very conditions from old injuries to system congestion, drawing extra power from any toxins or contaminants found in the bloodstream.

The combinations of elements that might normally result in toxic compounds cease to be threatening in the presence of Deuteron activity. Harmful compounds are broken down into their constituent-free elements on a measured time release pattern. Immune antibodies can be formed as required as well as catalysts, enzymes and vitamins.

It Is time for general acceptance of the concept that even in some terminal cases, our bodies can, given essential building blocks, repair and reconstitute every living cell within a span of 11 months.

Each cough, sneeze, sniffle, sore throat, sore muscle or congestive pain should serve as a warning signal that our glandular, gastro-intestinal, pulmonary, neurological or cardiovascular systems will in some way become or may be under stress or actual attack.

When in doubt, call in an allergist. Time, study and patience can often solve the most baffling problems.

General Practitioners and family-oriented Physicians can aid with the patient's own self-discipline teaching that everyone must become his own body's best friend. No matter how crushed with work, the sincere Physician or Surgeon must push or at least nudge his patient into either mental or physical exertion simply because life generates more life and thus feeds the electrical process of revitalization.

In summary, the winding road to health leads ever uphill from some form of hydrogen, probably Deuterium, its most versatile isotope which is about to be recognized as the creative and sustaining, force of all life.

Physicians and Surgeons by monitoring the progress along life's highway with a view to keeping people away from the exits and moving ever forward can perform the most worthwhile service in the world.

CELLFOOD

Cellular Food for Advanced Nutrition

The Premier Oxygen Product

The inventor of CELLFOOD Everett L. Storey, was an author, physical chemist, microbiologist and humanitarian. After more than 24 years of research and development, CELLFOOD was developed as a broad spectrum, highly energized liquid. CELLFOOD {Deuterium Sulfate [D₂SO₄]} is a proprietary secret formulation, developed from a di-base solution.

Contained in this di-pole formula are "Aerobic" proteins, 17 amino acids, 34 enzymes, 78 major and trace elements and deuterons, electrolytes, and dissolved oxygen.

CELLFOOD has the unique ability to dissociate the water molecule into nascent hydrogen and nascent oxygen. This "splitting" of the water molecule results in the release of nascent hydrogen and oxygen gases simultaneously

in a chain reaction that only involves about one five-hundred thousandth of the available moisture at one time. This results in an additional source of oxygen available from the water molecule. Some of the benefits of a mineral-rich and oxygen-rich diet include: high energy levels; better assimilation and utilization of the food we eat and the supplements we consume; and the creation of enzymes that are necessary for vitamins to function, increasing their effectiveness four to five times in the body. When a body is deficient in oxygen, hydrogen, trace minerals, enzymes, amino acids and water, it does not have the ability to repair and maintain itself. It is said to be in a state of disease (dis-ease). Since the elements in CELLFOOD are suspended in liquid form and are broken down into an ionic state, they are absorbed at a much greater rate than the same elements in a tablet form.

CELLFOOD flows throughout the entire body, cleansing and energizing the system. This highly effective, unique formula may be used for specific purposes or as an enhancer. CELLFOOD has antitoxic, antiviral and antibacterial properties. It is also a powerful detoxifier and will help digest and eliminate toxins from the bowel, such as remains of undigested foods. CELLFOOD creates an environment in which harmful bacteria and viruses can no longer thrive. It allows the body to maintain and produce its own vitamins, catalysts and enzymes, thus helping the body to function more efficiently while removing waste materials. With the proper

elementals, the body can repair itself, naturally. It also enhances the natural vital force in the body. It is a nontoxic oxygen/mineral/enzyme/amino acid formula, which has been developed using the most advanced scientific methods available. CELLFOOD is a blend between science and traditional medicine..

Many satisfied clients have claimed that CELLFOOD has helped in the following conditions:

Arthritis Bladder infection

Cancer Candida

Chronic Fatigue Syndrome Common Cold

Diabetes Eczema

Gout Heart Diseases

Herpes simplex Lung conditions

HIV Hypertension

Impotence Menstrual Problems

Nervous system disorders Post Polio Syndrome

Psoriasis Sickle Cell Anemia

Shingles Viruses

And many more

CELLFOOD:

From The Desk Of Ed McCabe, "Mr. Oxygen"

For over twelve years, I have researched various forms of oxygen [Image] therapies available worldwide. I have lectured throughout the world sharing thousands of accounts of amazing health and healing benefits from increasing the oxygen levels in the body. Perhaps you have attended one of my lectures, listened to my audio tapes, or watched my video.

If you recall reading my book, *Oxygen Therapies: A New Way of Approaching Disease*, you know that our bodies were designed by the Creator to function on nearly 50% more oxygen than is available in today's atmosphere. By living in an oxygen deficient environment, and not feeding our cells the proper oxygen and nutrients needed for clearing wastes, our body fluids and blood can become toxic. In today's toxic world, nearly everyone can benefit from increased oxygenation at the cellular level. There is an easy and effective way to supplement your body's need for increased oxygen: Oxygen for Life's new product CELLFOOD.

During my numerous appearances on TV and radio, I have consistently repeated that after twenty-five years of private research, I noted exactly which supplements people responded to--quickly and with the best results. Here they are--the five most important things the human body needs in today's toxic world to regain or maintain health. The five crown jewels of health are: Lots of cellular OXYGEN, the body cleanser and immune booster;

COLLOIDAL MINERALS, the building block of everything your body is made up of; ENZYMES, the scavenger / catalysts; good clean WATER, the cleanser and transport mechanism, and a moral and spiritual BALANCE.

In my experience, from the thousands of interviews I personally conducted, I have seen amazing results consistently and quickly in people who have properly applied just oxygen supplementation, or just colloidal minerals, or just enzymes. Each one has proven to be a powerhouse all by itself. Now, imagine your level of wellness if you combine all three.

That's exactly why I'm writing to tell you that the folks at Oxygen for Life have done exactly that. Their new product CELLFOOD actually combines three of my five crown jewels of health in just one product. CELLFOOD supplies your body with a diet of OXYGEN, MINERALS and ENZYMES all at once! CELLFOOD has been refined by brilliant scientists over many years in order to optimize its synergistic action. The main properties of CELLFOOD are amazing. It increases the bioavailability of oxygen in the water or juice you place it in and I believe that this means it also releases oxygen into the body by taking just a little bit of your body's water (most of you have over one hundred pounds of water in your body--two thirds of your body is water) and then, since water is made of oxygen,CELLFOOD safely generates oxygen right from your internal water and releases it to the cells! Pretty neat, huh? You know how good oxygen is for you. Just a little bit of

CELLFOOD every day, with consistency, and the cleansing and building process begin and then continue.

Although CELLFOOD already has enzymes and colloidal minerals in it, to be sure you're getting optimum nutrition, I would strongly suggest taking digestive enzymes along with the new CELLFOOD product. Then you will be sure to have enough basic oxygen, minerals, and enzymes.

OFL DIGESTIVE PLANT ENZYMES are full spectrum replacements for the natural enzymes that are supposed to be in our food but have been destroyed by the usual commercial food processing, and the decline of bodily enzyme production from aging. Without enough enzymes, our bodies cannot properly digest food, and undigested food particles putrefy in the body and create an unhealthy fluid environment that disease microorganisms love, People who take digestive enzymes (including me) report their digestion improves, like they used to have when they were children. Remember?

The minerals in CELLFOOD are absolutely necessary for 95% of your body's daily functions. Commercial farming has caused our soils to become mineral depleted. Due to poor crop rotation and the loss of valuable top soil from flooding and over-irrigation, much of the natural minerals and trace minerals has been lost from today's food supply, When a body is lacking minerals, vitamins have little or no effect. Because CELLFOOD's pristine

sea source and ancient plant source minerals are suspended in a liquid form, they are more readily absorbed and utilized by the body than minerals in tablet or capsule form, An easy and effective way to supplement your body's need for minerals is by using CELLFOOD.

Oxygen for Life's premier liquid nutritional supplement is CELLFOOD. For optimum cellular nutrition, and ease of detoxification, follow the label direction. CELLFOOD IS POWERFUL--A LITTLE GOES A LONG WAY.

A months supply of CELLFOOD comes in a 8 ounce bottle and cost only \$32.00 retail. And a month's supply of DIGESTIVE PLANT ENZYMES cost only \$28.00 retail.

* [All products can be ordered directly from Oxygen for Life. To receive a 10% discount please e--mail Timothy M. Sanders, D.D.S. (Oxygen@wwns.com) and use the word's "Order Only" in your request.

Ordering information will be provided. It's simple to order CELLFOOD If you wish to buy CELLFOOD at at the wholesale distributor price please request a complete information pack from Timothy M. Sanders, D.D.S. (Oxygen@wwns.com) An information pack plus an immediate ordering number will be provided. Use the word "CellFood Pack" in your request.]

Remember that CELLFOOD has been tested and used daily for years. It is a proven product and OFL has received hundreds of positive reports. The OFL ongoing CELLFOOD research project team would like to tally your personal results from adding CELLFOOD to your diet on a regular daily basis.

Oxygen for Life and I would be most appreciative if you dropped them a note at the following address:

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Sincerely yours, and Happy Oxygen!

Ed McCabe

CELLFOOD

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Hydrolases, Carbohydrases Actinium

1. Maltase Antimony

2. Sucase Argon

3. Emulsin Astatine

Nucleases Barium

1 Polynucleotidase Beryllium

2. Nucleotidase Bismuth

Amidase Boron

1. Urease Bromine

Peptidases Calcium

1. Aminopolypeptidase Cadmium

2. Depeptidase Carbon

3. Prolinase Cerium

Esterases Cesium

1. Lipase Chromium

2. Phosphotases Cobalt

3. Sulfatases Copper

Iron Enzymes Dysprosium

1. Catalase Europium

2. Cytochrome oxidase Fluorine

3. Peroxidase Gadolinium

Copper Enzymes Gallium

1. Tyrosinase Germanium

2. Ascorbic acid oxidase Gold

Enzyme containing Coenzymes 1 and/or 2 Hafnium

1. Lactic Dehydrogenase Helium

2. Robison Ester Dehydrogenase Holmium

Enzymes which reduce cytochrome Hydrogen

1. Succinic Dehydrogenase Iridium

Yellow Enzymes Iodine

1. Warburg's Old Yellow Enzymes Iridium
2. Diaphorase Iron
3. Haas Enzyme Krypton
4. Cytochrome C reductase Lanthanum

Hydrases Lithium

1. Fumarase Lutetium
2. Enolase Magnesium

Mutases Molybdenum

1. Aldehyde Mutase Neodymium
2. Glyoxalase Neon

Desmolases Nickel

1. Zymohexase (adlolase) Niobium
2. Carboxilase Nitrogen

Other Enzymes Nobelium

1. Phosphorylase Osmium
2. Phosphohexisomerase Oxygen
3. Hexokinase Palladium
4. Phosphoglucose mutase Phosphorus

AMINO ACIDS Platinum

Alanine Polonium

Arginine Potassium

Aspartic Acid Praseodymium

Cystystine Promethium

Glutamic Acid Rhenium

Glycine Rhodium

Histidine Rubidium

Isolentine Ruthenium

Lysine Samarium

Methionine Selenium

Thenylalanine Silicon

Proline Silver

Serine Sodium

Threonine Sulfur

Tryptothan Tantalum

Tyrosine Technetium

Zaline Tellurium

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THE CHEMISTRY OF CELL FOOD

Cell Food is a proprietary, super energized, complex concentrate of 78 trace elements, 34 enzymes, 17 amino acids and dissolved oxygen held in a colloidal suspension. A colloid is a minute particle which is suspended in a liquid solution. Since most of the bodily fluids (blood, lymph and CSF) are colloidal in nature and negatively charged, the similarity between Cell

Food and the bodily fluids increases the bioavailability of the nutrients contained in CellFood to every cell in the body. This increased availability of nutrients allows the body to function more normally.

Cell Food is unique due to its ability to create nascent oxygen. Nascent in Latin terms means newly born. In biochemical terms it refers to this newly born singlet oxygen as O^- that has not yet entered into biochemical reaction. Free radicals (which many biochemists now believe are a primary cause of the aging process and degenerative disease) are positively charged ions of singlet oxygen, O^+ . Nascent oxygen is negatively charged O^- . The opposite charge of these ions cause them to attract each other, forming simple pure Oxygen O_2 . Nascent oxygen "seeks out" and neutralizes dangerous free radicals, combining to form pure oxygen in the process!!!

(O^- nascent oxygen & O^+ free radical ion= O_2 stable oxygen.)

Cell Food is developed from a di-base, di-pole solution. Cell Food has the ability to dissociate $H_2O \rightarrow O^-$ & H^+ . simultaneously in a chain reaction that involves only 1:0005000 available moisture at one time >which yields an additional source of oxygen to the body. "Splitting" of the water molecule is performed by means of weakening the bonding electrons (Ionic Transfers).

1. DI-POLE: In the H_2O molecule, the density of the electron cloud is

located around the Oxygen atom; the bonding electrons are shifted toward Oxygen and away from Hydrogen. CellFood allows the bonds in the electron distribution to be unsymmetrical (Polar). The hydrogen molecule can then be described as DI-POLE with the Oxygen atom acting as a negative pole and the Hydrogen as a positive pole.

2. DI-BASE: Generally dissociate in solution into one Hydrogen ion and the residue of the molecule, the second replaceable Hydrogen atom not splitting off as an ion until the greater quantity of the first has been removed.

Questions And Answers

Q. Does CellFood contain oxygen?

A. CellFood is able to generate oxygen from "splitting" the water molecule. The concentrate is added to water and at that time begins to generate oxygen. CellFood itself does not really contain large amounts of oxygen.

Q. What stops the generation of oxygen and hydrogen?

A. Simply stated, when the body needs oxygen, it utilizes the oxygen needed. Since Cellfood utilizes only one five-hundred thousands of the available moisture at one time, there is usually plenty more there available to release if needed. (Note: you will not explode with an excess

amount of oxygen or hydrogen as it is not released until needed).

Q. What is the shelf life of CellFood?

A. The shelf life of CellFood is almost indefinite. Sample batches from 25 years ago have been tested and have actually improved with time (similar to fine wines).

Q. Can CellFood be used to purify water?

A. Yes. CellFood can be used to purify water that you are somewhat uncertain about (such as from a river or stream). Simply add 3 drops of CellFood to 1 pint of water. It will even take the "smell" out of the water and improve the taste. In earthquake areas (such as CA) CellFood should be kept available to make sure that stored water that is kept around for several months can be purified. (Note: It is suggested that CellFood not be added until ready to use).

Q. How is CellFood used Topically?

A. Mix CellFood with at least 20 parts of water and use this solution for soaking or dabbing onto the cut, burn or affected area. (Company owners use a small amount of CellFood in a spa and have experienced tremendous results

with softening skin and other side benefits as well as keeping the spa water clean and clear).

Q. What is the function of Trace Elements in Cell Food?

A. Trace elements are needed as cofactors for specific enzymes and for a wide variety of other critical functions such as acid-base balance. Each enzyme is specific in that it will catalyze only one type of reaction.

There are thousands of chemical reactions that take place within the body, and therefore we have thousands of enzymes, each with its own shape and active site.

The ability of enzymes to function may be limited or destroyed by changes in the intracellular or extracellular fluids in which they are found.

Changes in blood pH and temperature are especially crucial for enzymatic functions. Acid-base balance must be maintained in order for enzymatic reactions to proceed normally. CellFood helps maintain this balance.

Q. What is the function of the Amino Acids contained in CellFood?

A. There are approximately 80 amino acids which are found in nature: only 20 are necessary for human metabolism and growth but, the ones that must be provided by supplementation are called essential. Amino acids are necessary

for protein metabolism and muscle energy (ATP). CellFood supplies these needed Amino Acids.

IN CONCLUSION

The combinations of elements that would normally result in toxic compounds cease to be threatening in the presence of deuterium activity. Harmful compounds are catabolized into the constituent free elements on a measured time release pattern. Immune antibodies can be formed as needed as well as catalyst enzymes and vitamins.

Since catabolism (destructive phase of metabolism- the process of reducing complex substances to simple substances with a release of heat) feeds on lack of oxygen, we must provide ample nascent oxygen and hydrogen to every cell. As well, some bodily processes require hydrogen, we must provide a means of dissociating water yielding nascent hydrogen and oxygen to continue this life giving chain reaction.

THE BEST MEDICINE IS HEART ECG COHERENCE, In Plain terms Compassionate Love Heals. Remember to breathe, and keep looking up.

This section will be expanded.