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Hydrogen Peroxide Therapy:

Supplement to The Art of Getting Well

Charles H. Farr, M.D., Ph.D., says, "Perhaps we have become myopic about biological oxidation! The majority of investigational studies seem to concentrate on the damaging effects of biological oxidation and the production of free radicals. Hydrogen peroxide is usually treated as a[n] intermediate or by-product of metabolism and considered of minor significance in metabolic pathways except as it relates to biochemical disruption, tissue or cellular damage.

Colleen

Hydrogen Peroxide Therapy:

"Medical data is for informational purposes only. You should always consult your family physician, or one of our referral physicians prior to treatment" - The Arthritis Trust of America.

Sources are given in references.

Authors of contributions\quotations are alphabetically arranged; major author, if any, is underlined.

Charles Farr, M.D., Ph.D., William Campbell Douglass, M.D., Walter O. Grotz, Dr. Edward Rosenow /Responsible editor/writer Anthony di Fabio.

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I must report on this promising therapy, as so many physicians and patients have given me good tidings from its use. What is probably not so well known by the general public, and many practicing physicians, is that hydrogen peroxide has been used for more than a century, the abstracts of articles published from 1966 through 1988 alone reaches 2" high when printed on 8-1/2"X11" paper.

A number of clinics in the United States and Mexico use hydrogen peroxide therapy, as well as other treatment modalities, on a routine basis, usually given by intravenous injection (IV).

Before scoffing, keep in mind that one of the very first lines of defense against any and all microorganisms recognized as invaders by our immunological system are macrophages and leucocytes, one of which uses hydrogen peroxide to oxidize the foreigners; and that vitamin C is effective principally by its ability to promote hydrogen peroxide use against foreign invaders, including parasites, viruses, bacteria, yeast/fungus; and that all body tissues contain catalase and that hydrogen peroxide in the presence of catalase is reduced to oxygen and water. So, there is strong reason to believe that added hydrogen peroxide, used properly, may be both effective against certain organisms and safe.

Hydrogen peroxide is an essential metabolite, meaning that it is necessary to life's process, according to William Campbell Douglass, M.D. of Georgia.

As we age, our immunological system weakens, which permits organisms of opportunity to spread, thereby breeding colonies of organisms whose presence is anathema to good health. Killing these organisms should permit at least temporary respite from microbial warfare, and give your system time to heal.

According to William Campbell Douglass, M.D.², not only is H₂O₂ (Hydrogen Peroxide) involved in phagocytosis (killing and absorption of foreign germs), but also "it acts like insulin in that it aids the transport of sugar through the body." Is is also at least as important, or perhaps more so, than thyroid for heat generation because it creates "intracellular thermogenesis, a warming of your cells which is absolutely essential to life's processes."

Various physicians, including some of our referral physicians, also use hydrogen peroxide therapy for various ailments. Physicians have independently discovered such treatments to be effective against some types of cancer, leukemia, arthritis, coronary heart disease, arterial circulation disorders, colitis, gum diseases, and assorted children's diseases.

The First International Conference of Bio-oxidative Medicine was held February 17-19, 1989 in Dallas/Ft. Worth, TX. Physicians presented papers on the efficacy and safety of hydrogen peroxide infusions. Since that date the non-profit International Bio-Oxidative Medicine Foundation¹ has grown rapidly, attracting many physicians who have also presented many scholarly works based on their work with patients.

While Chelation Therapy is an extremely useful treatment and preventive measure for at least 80% of peripheral circulation problems, it apparently cannot clean out hardened plaque in arteries, like the large heart arteries and the aorta³.

According to Douglas, the Baylor University Medical Center may "have gone a long way toward proving that H₂O₂ dripped into the leg and carotid vessels of patients known to have severe arteriosclerosis will clear those arteries of disease. When these patients died, autopsies were done to compare arteries that had been treated with H₂O₂ with those not treated. They reported: 'The elution [separation] of lipids from the arterial wall by dilute hydrogen peroxide has been accomplished. . . .' In simple English that means the plaque buildup was removed by injecting H₂O₂ into the blood vessels. . . . That was over 20 years ago²."

Dr. Douglass added that, "The investigators also reported that the improvement is not temporary."

While H₂O₂ has been used to good advantage for hardening of the arteries, temporal arteritis, shingles, chronic obstructive pulmonary disease, the yeast syndrome,

various viral infections, including AIDS, certain forms of cancer, dental gum diseases, colds (35% H₂O₂ in cold humidifier), growing better food, purifying water without chlorine complications, increasing thyroid activity, arthritis, depression, emphysema, lupus erythematosus, multiple sclerosis, . . . , a list of claims made would exceed our space limitations, and so I direct you to others for substantiation and research reports: The International Bio-Oxidative Foundation¹ and ECHOS⁴, as per references.

A word of caution: while many reputable physicians and researchers have made legitimate claims on the safety and efficacy of H₂O₂ , it is my opinion that there are a lot of scam artists using or selling H₂O₂ , and so one must be careful¹². I believe that you can rely on the work of the International Bio-Oxidative Medicine Foundation and ECHOS.

There are also many important forgotten facts in the past medical literature. For example, William Campbell Douglass, M.D. reports on "Dr. Edward C. Rosenow, author of 450 published medical papers and associate at the Mayo Clinic for over 60 years . . . proved [more than] 70 years ago (1914) that bacteria could be found consistently in the lymph nodes that drain joints (J.A.M.A., April 11, 1914). He was probably the first scientist to postulate that H₂O₂ would help arthritis because of its ability to supply oxygen to oxygen-hating organisms causing arthritis (*Streptococcus viridans*)."

Charles H. Farr, M.D., Ph.D., says, "Perhaps we have become myopic about biological oxidation! The majority of investigational studies seem to concentrate on the damaging effects of biological oxidation and the production of free radicals. Hydrogen peroxide is usually treated as a[n] intermediate or by-product of metabolism and considered of minor significance in metabolic pathways except as it relates to biochemical disruption, tissue or cellular damage.

We feel the physiological effects of bio-oxidation and, in particular hydrogen peroxide, should be investigated with a new prospect.

From the 2,500 or more references on hydrogen peroxide we have collected and reviewed we have come to appreciate this physiological product as a[n] extremely important molecule in metabolism. Hydrogen peroxide is produced by all cells of the body for many different physiological reasons. The granulocytes produce H₂O₂ as a first line of defense against bacteria, yeast, virus, parasites, macrophages, and most fungi. It is involved in any metabolic pathway which utilize oxidases, peroxidases, cyclo-oxygenase, lipoxygenase, myeloperoxidase, catalase and probably many other enzymes. Hydrogen peroxide is involved in protein, carbohydrate and fat

metabolism, immunity, vitamin and mineral metabolism or any other system you might wish to explore.

Our studies demonstrate a positive metabolic effect to intravenous infusion of H₂O₂. Its ability to oxidize almost any physiological or pathological substance, in addition to producing increased tissue and cellular oxygen tensions, has proven it to have therapeutic value.

"We feel the evidence presented should stimulate a new appreciation in the study of the potential therapeutic application of bio-oxidative mechanisms."

Two Means of Administration

There are two ways to administer hydrogen peroxide for medical purposes. Both means require a pure grade of hydrogen peroxide which is something different than one can purchase at the drug store for topical treatment of sores and wounds. The 3% drugstore hydrogen peroxide also contains tin and phosphate compounds that are dangerous to consume either by means of IV (intravenous) or orally.

For sources of pure "food grade" oral or intravenous hydrogen peroxide, contact ECHO⁴.

I must caution at the outset that Dr. Farr and some other physicians¹¹ do not approve of use of H₂O₂ for oral treatment, as so many treatment modalities describe¹¹. The exact method for oral administration can also be obtained from ECHO.

Dr. Farr, and some other physicians, feel that free-radicals are produced in the stomach when H₂O₂ is administered orally, and these free-radicals are not safe. Combinations of fatty acids which are likely to be in the stomach in the presence of iron and ascorbate may reduce hydrogen peroxide to hydroxyl and superoxide free radicals. These may have a deleterious effect upon the gastric and duodonal mucosa, with an increase of glandular stomach erosion, duodonal hyperplasia (abnormal increase in number of cells), adenoma and carcinoma, although in rats there seems to be inconsistencies in the studies related to carcinogenesis using 0.8% concentration for ten weeks versus 1% concentration for 32 weeks, the former indicating carcinogenesis, the latter not so.

Since some clinics are using both intravenous and oral techniques with patients successfully, or to some good advantage, apparently not all possible research is in on the subject of oral versus IV administration.

I have twice tried the oral method, and have failed to continue onward, because of a terrible, revolting nausea. Some folks react similarly, others don't, and some persevere despite all.

As stated earlier, Dr. Farr's research demonstrates that hydrogen peroxide stimulates oxidative enzymes which increases the metabolic rate. Intravenous use rapidly relieves allergenic reactions, influenzal symptoms, chronic systemic candidiasis, acute viral reactions as a result of the oxidation of antigenic substances and regulation of immune system functions.

To prepare the IV (intravenous) solutions, Dr. Farr begins with 30% H₂O₂ of USP food or cosmetic grade. Thirty percent H₂O₂ is a powerful oxidizer and should be handled with extreme caution.

The 30% solution is diluted with equal amounts of sterile distilled water to make a 15% stock solution. The stock solution is passed through a Millipore 0.22mm medium flow filter for sterilization and removal of particulate matter. The stock solution is stored in 100 ml sterile containers and kept refrigerated for future use.

His infusion solutions are then prepared using sterile 5% dextrose in water. The addition of 1/4 ml sterile of the 15% H₂O₂ stock solution to each 100 ml of carrier solution produces a 0.0375% concentration that is finally used for the intravenous infusions.

Dr. Farr further warns that "caution must be exercised that nothing is added to the H₂O₂ solution because of its tremendous oxidizing power. Even ascorbic acid (Vitamin C) is rapidly oxidized to the mono-dehydroascorbate radical, an unstable compound which degrades into numerous other chemical fragments. . . . Vitamins, minerals, peptides, enzymes, amino acids, heparin, EDTA, or other injectable materials should never be mixed with the H₂O₂ solution."

By far the widest use for hydrogen peroxide, whether wisely or not, seems to be that of oral use, where a 35% "food grade" is diluted to a 3% concentration by use of 1 ounce of 35% H₂O₂ to 11 ounces of distilled water. The 3% concentration is then used by quantities of drops in distilled water, increasing the dosages and number of oral treatments daily throughout a number of weeks.

Many have made the claim that a "die-off" effect is observed, similar in nature to the Herxheimer Effect⁵.

Further information on the oral use of H₂O₂ may be acquired from ECHO⁴.

There are many other uses for hydrogen peroxide for health purposes than simply topical use on sores, or intravenous therapy. With permission from ECHO4, the following is presented:

Other Uses for H₂O₂

Use 3% solution, except where 35% is highlighted.

Vegetable soak: Add 1/4 cup to a full sink of cold water. Soak light-skinned (like lettuce) 20 minutes, thicker skinned (like cucumbers) 30 minutes. Drain, dry and refrigerate. Prolongs freshness. If time is a problem, spray vegetables (and fruits) with a solution of 3%. Let stand for a few minutes, rinse and dry.

Leftover tossed salad: Spray with a solution of 1/2 cup water and 1 Tbsp. 3%. Drain, cover and refrigerate.

To freshen kitchen: Keep a spray bottle in the kitchen. Use it to wipe off counter tops and appliances. It will disinfect and give the kitchen a fresh smell. Works great in the refrigerator and kid's school lunch boxes.

Marinade: Place meat, fish, or poultry in a casserole (avoid using aluminum pans). Cover with hydrogen peroxide. Place loosely covered in refrigerator for 1/2 hour. Rinse and cook.

In the dishwasher: Add 2 ozs to your regular washing formula.

Sprouting seeds: Add 1 oz. to a pint of water and soak the seeds overnight. Add the same amount of hydrogen peroxide each time you rinse the seeds.

House and garden plants: Put 1 oz. in 1 quart of water. Water or mist plants with this solution.

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Insecticide spray: Mix 8 ozs. white sugar, 4-8 ozs. hydrogen peroxide in 1 gallon of water.

Humidifiers and steamers: Mix 1 pint to 1 gallon of water.

Laundry: Add 8 ozs. to your wash in place of bleaches.

Shower: Keep a spray bottle of hydrogen peroxide in the shower. Spray your body after washing to replace the acid mantle of your skin that soap removes.

Facial: Use on a cotton ball as a facial freshener after washing. (Remember: do not use 35% grade!)

Rejuvenating detoxifying bath: Add 6 ozs. to 1/2 tub of water. May increase hydrogen peroxide up to 2 cups per bath. Soak at least 1/2 hour.

Alternate bath: Add 1/2 cup 35% H₂O₂ , 1/2 cup sea salt, and 1/2 cup baking soda or epsom salts to bath water and soak.

Foot soak: Add 1-1/2 ozs. 35% H₂O₂ to 1 gallon water and soak.

Athlete's foot: Soak feet nightly until condition is improved.

Mouthwash: Add a dash of liquid chlorophyll for flavoring if desired.

Toothpaste: Use baking soda and add enough to make a paste. Or just dip your brush in it and brush.

Douche or enema: Add 6 Tbls. to a quart of distilled water. 6 Tbls. is the maximum amount to use.

Pets: For small animals (dogs & cats) use 1 oz. to 1 qt. of water.

Agriculture: Use 8 ozs. 35% H₂O₂ per 1000 gallons of water. If you do not have an injector, start out by using 1 tsp. 35% H₂O₂ in the drinking cup at the stanchion.

Drinking water of ailing cows: Use 1 pt., to 5 gallons of water. To drench sick calves, put 1/3 pt. bottle and fill remainder with water. Do this twice a day. For an adult cow, use the same procedure, but use a quart.

Foliage feed crops: put 5 to 16 ozs. of 35% H₂O₂ into 20 gallons of water. This is sufficient for 1 acre. Spray on plants early in the morning when the dew is still on them and the birds are singing.

Hydrogen peroxide has been a recognized medicinal source since at least the 1800's, has gone into disrepute, and now seems to lie in a sort of limbo, so far as established medicine is concerned.

However, research has progressed forward on its use throughout the world, and American doctors of a more open-minded view are persisting in learning its good effects.

Again I caution the reader that there is controversy between the use of oral hydrogen peroxide and use of IV (intravenous) treatment. You must study the issues and come to your own judgement. But please make an educated decision, and whichever you decide, find a physician who knows what he/she is doing.

Stimulation of Oxidative Enzymes

Charles H. Farr, M.D., Ph.D. has used hydrogen peroxide clinically, and has reported on research that he performed that sheds a great deal of light on how H₂O₂ functions. Contrary to popular belief, the use of H₂O₂ by either infusion or orally cannot supply as much oxygen as a good, deep breath. Instead, it is the stimulation of oxidative enzymes that does the useful trick. Dr. Farr's conclusions are appropriate and follow:

Dr. Farr says⁶, "There are a number of commercial products [that] claim to contain more oxygen on a volumes percent basis than Hydrogen Peroxide and consequently this has been interpreted as meaning they would somehow have more biological activity. There is a great deal of confusion about the difference between the terms 'Oxygenation' and 'Oxidation' when applied to biochemical reactions. A product which contains more oxygen per molecule may or may not have any biological activity.

"We reported¹ Intravenous Hydrogen Peroxide has an oxidative stimulatory effect when administered to man which appears to be independent of the amount of oxygen produced.

"Hydrogen Peroxide is a very simple molecule produced by almost every cell in the body. This amazing molecule, essential for life in both plant and animal, has been generally overlooked for its role in oxidative metabolism. Every chemist knows any reaction must have an opposite reaction to balance the equation. This applies equally to reactions in the test tube and in living cells. The world seems to have been caught up in the idea all biological oxidation is harmful because free-radicals may be produced. Free-radicals can cause lipid peroxidation and membrane damage. Consequently many products, containing anti-oxidants, are being promoted to prevent peroxidation. Some researchers⁷, including this author, feel peroxidation serves a useful purpose in the biochemical balance and may need stimulating at times instead of preventing.

"Hydrogen Peroxide as an oxidizer, under certain catalytic conditions, can degrade into water and oxygen.

"The fact that Hydrogen Peroxide may increase oxygen tension in the tissue is of secondary importance. Any student of biochemistry knows the principal reaction of an oxidizer, such as Hydrogen Peroxide, is to accept electrons in the RedOx [reduction/oxidation] reactions of the body and has nothing to do with "Oxygen" or "Oxygenation." It is true Hydrogen Peroxide increases the rate of oxidation in the body⁸, but this is not because it produces oxygen but rather it stimulates oxidative enzymes.

"Hydrogen Peroxide is a naturally produced purposeful molecule in the body. It functions to aid membrane transport, acts as a hormonal messenger, regulates thermogenesis (heat production), stimulates and regulates immune functions, regulates energy production and many other important metabolic functions. These effects can occur without increasing the amount of oxygen. It is purposely used by the body to produce Hydroxyl Radicals to kill bacteria, virus, fungi, yeast and a number of parasites. This natural killing or protective system has nothing to do with increasing the amount of available oxygen.

"The amount of oxygen produced by a therapeutic infusion of Hydrogen Peroxide is very small. A single breath of fresh air contains many times more oxygen than found in either a therapeutic infusion or in a few drops of 35% Food Grade Hydrogen Peroxide taken orally.

"Claims are being made that molecules containing Oxygen and Chlorine, Chlorine or Chlorite ions will sterilize water, milk and almost anything to which they have been added. Chlorine is added to almost all public water supplies for the same purpose. The small amount of oxygen in these molecules have very little to do with this sterilization process. There are many more aerobic (requires oxygen) than anerobic (does not use oxygen) bacteria and increasing the oxygen supply may actually stimulate the growth of the aerobic bacteria. `Oxygen supply' or `Oxygenation' is not a credible basis for the promotion of these products. Oxidation is the key word and not Oxygenation.

"Oxidation is the removal of an electron from a molecule which changes electrical energy of the molecule into an oxidized state. The oxidizing agent which accepts the electron through this reaction becomes reduced. This reaction takes place in many biochemical reactions in which OXYGEN is not involved. In oxidative reactions in which Hydrogen Peroxide is involved, oxygen is released when the Hydrogen Peroxide, acting as an oxidizer, is reduced but it is the transfer of the electrons which is important and not the production of Oxygen.

"Manufacturers of products which claim to have the same effect as Hydrogen Peroxide may not have a good understanding of the biochemical role of Hydrogen Peroxide in the body. Some of these products claim to provide more oxygen molecules than Hydrogen Peroxide and that may be true but I know of no scientific evidence to show this enhances oxidative metabolism. Cancer and many other degenerative diseases are thought to be the results of poor cellular oxidative processes. They are not the results of a reduced supply of oxygen. Persons with anemias or severe lung disease may have an oxygen deficit but do not necessarily have a greater incidence of Cancer or chronic diseases. The problem is not the delivery of oxygen to the cells but utilization by the cells. Hydrogen Peroxide affects utilization or oxidation dramatically whereas hyper-oxygenated or chlorinated molecules have not been shown to be necessary in the body to improve oxidative metabolism⁹."

Many physicians and clinics are effectively using Hydrogen Peroxide intravenously with their patients.

There is a ton of literature favoring Hydrogen Peroxide treatment for various medical conditions¹⁰.

We suggest that your study of H₂O₂ may be an important step in your search for good health. It's worth looking into!

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