

# The Many Benefits of Hydrogen Peroxide

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When it comes to hydrogen peroxide therapy there seems to be only two points of view. Supporters consider it one of the greatest healing miracles of all time. Those opposed feel its ingestion is exceptionally dangerous, and only the foolhardy could think of engaging in such behavior. Before either condemning or endorsing hydrogen peroxide, let's take a real close look at what we're dealing with.

If any substance is interesting, it's hydrogen peroxide. Hydrogen peroxide should really be called hydrogen dioxide. Its chemical formula is  $H_2O_2$ . It contains one more atom of oxygen than does water ( $H_2O$ ). By now everyone's aware of the ozone layer that surrounds the earth. Ozone consists of three atoms of oxygen ( $O_3$ ). This protective layer of ozone is created when ultraviolet light from the sun splits an atmospheric oxygen molecule ( $O_2$ ) into two single, unstable oxygen atoms. These single molecules combine with others to form ozone ( $O_3$ ). Ozone isn't very stable. In fact, it will quickly give up that extra atom of oxygen to falling rainwater to form hydrogen peroxide ( $H_2O_2$ ). (Bear with me: all this chemistry mumbo jumbo I'm going through actually will help you understand the importance of hydrogen peroxide.)

## Helps Plants

It is this hydrogen peroxide in rainwater that makes it so much more effective than tap water when given to plants. With the increased levels of atmospheric pollution, however, greater amounts of  $H_2O_2$  react with air-borne toxins and never reach the ground. To compensate for this, many farmers have been increasing crop yields by spraying them with diluted hydrogen peroxide (5 to 16 ounces of 35% mixed with 20 gallons of water per acre). You can achieve the same beneficial effect with your house plants by adding 1 ounce of 3% hydrogen peroxide (or 16 drops of 35% solution) to every quart of water you give your plants. (It can also be made into an excellent safe insecticide. Simply spray your plants with 8 ounces of 3% peroxide mixed with 8 ounces of white sugar and one gallon of water.)

Hydrogen peroxide is odorless and colorless, but not tasteless. When stored under the proper conditions, it is a very stable compound. When kept in the absence of light and contaminants, it dismutates (breaks down) very slowly at the rate of about 10% a year. (This can be slowed even further by storing the liquid in the freezer.) It boils at 152 degrees C and freezes at minus 2 degrees C.

When exposed to other compounds hydrogen peroxide dismutates readily. The extra oxygen atom is released leaving  $H_2O$  (water). In nature oxygen ( $O_2$ ) consists of two atoms--a very stable combination. A single atom of oxygen, however, is very reactive and is referred to as a free radical. Over the past several years, we've continually read that these free radicals are responsible for all types of ailments and even premature aging. What many writers seem to forget, however, is that our bodies create and use

free radicals to destroy harmful bacteria, viruses, and fungi. In fact, the cells responsible for fighting infection and foreign invaders in the body (your white blood cells) make hydrogen peroxide and use it to oxidize any offending culprits. The intense bubbling you see when hydrogen peroxide comes in contact with a bacteria-laden cut or wound is the oxygen being released and bacteria being destroyed. The ability of our cells to produce hydrogen peroxide is essential for life. H<sub>2</sub>O<sub>2</sub> is not some undesirable by-product or toxin, but instead a basic requirement for good health.

Newer research indicates we need hydrogen peroxide for a multitude of other chemical reactions that take place throughout the body. For example, we now know that vitamin C helps fight infections by producing hydrogen peroxide, which in turn stimulates the production of prostaglandins. Also lactobacillus found in the colon and vagina produce hydrogen peroxide. This destroys harmful bacteria and viruses, preventing colon disease, vaginitis, bladder infections and a host of other common ailments. (Infect Dis News Aug.8,91:5). When lactobacillus in the colon or vaginal tract have been overrun with harmful viruses, yeast, or bacteria, an effective douche or enema solution can be made using 3 tablespoons of 3% H<sub>2</sub>O<sub>2</sub> in 1 quart of distilled water. Keep in mind, however, that a good bacterial flora must always be re-established in these areas to achieve lasting results.

### Aerobic versus Anaerobic

While we are discussing enemas and douches, there is another misconception about H<sub>2</sub>O<sub>2</sub> I need to address. The friendly bacteria in the colon and vagina are aerobic. In other words, they flourish in high oxygen environments and thrive in the presence of oxygen rich H<sub>2</sub>O<sub>2</sub>. On the other hand, most strains of harmful bacteria (and cancer cells) are anaerobic and cannot survive in the presence of oxygen or H<sub>2</sub>O<sub>2</sub>. We can agree that hydrogen peroxide produced within individual body cells is essential for life. And no one doubts its effectiveness when it comes to treating infections topically. The controversy deals with ingesting the substance orally or introducing it into the body intravenously. The dispute has been going on for decades, and considering the attitude of our medical community, it will continue for many more decades to come.

I'll admit I was skeptical when I first learned about using H<sub>2</sub>O<sub>2</sub> orally or intravenously. This healthy dose of skepticism, however, led to a great deal of investigation, clinical work and experimentation. And while I realize a large majority of readers will probably never be convinced that H<sub>2</sub>O<sub>2</sub> is a safe and effective compound, I am. Hydrogen peroxide is safe, readily available and dirt cheap. And best of all, it works! No one yet fully understands the complete workings of hydrogen peroxide. We do know that it is loaded with oxygen. (A pint of the food-grade 35% solution contains the equivalent of 130 pints of oxygen. A pint of 3% hydrogen peroxide found at the local drugstore contains 10 pints of oxygen. And a pint of the 6% solution used to bleach hair contains 20 pints of oxygen.) We also know that when H<sub>2</sub>O<sub>2</sub> is taken into the body (orally or intravenously) the oxygen content of the blood and body tissues increases dramatically. Early researchers felt these increases were simply due to the extra oxygen molecule being released. This doesn't however, appear to be the case.

Only very diluted amounts of H<sub>2</sub>O<sub>2</sub> are ever introduced into the body. The small amount of oxygen present couldn't be solely responsible for the dramatic changes that

take place. **Dr. Charles Farr**, a strong proponent of intravenous use, has discovered another possible answer. Dr. Farr has shown that hydrogen peroxide stimulates enzyme systems throughout the body. This triggers an increase in the metabolic rate, causes small arteries to dilate and increase blood flow, enhances the body's distribution and consumption of oxygen and raises body temperature (Proceedings of the International Conference on Bio-Oxidative Medicine 1989, 1990, 1991).

### Father Richard Willhelm

We are just beginning to learn exactly how H<sub>2</sub>O<sub>2</sub> works. It was reported to work as far back as 1920. The English medical journal, *Lancet*, then reported that intravenous infusion was used successfully to treat pneumonia in the epidemic following World War I. In the 1940's Father Richard Willhelm, the pioneer in promoting peroxide use, reported on the compound being used extensively to treat everything from bacterial-related mental illness to skin disease and polio. Father Willhelm is the founder of "Educational Concern for Hydrogen Peroxide" (ECHO, a nonprofit organization dedicated to educating the public on the safe use and therapeutic benefits of hydrogen peroxide.) Much of the interest in hydrogen peroxide waned in the 1940's when prescription medications came on the scene. Since that time there has been little economic interest in funding peroxide research. After all, it is dirt cheap and non-patentable. Even still, in the last 25 years, over 7,700 articles relating to hydrogen peroxide have been written in the standard medical journals. Thousands more, involving its therapeutic use, have appeared in alternative health publications. The number of conditions helped by hydrogen peroxide is astounding. The reported dangers and side effects are few and often conflicting.

### Emphysema

Let's look at several conditions that seem to respond especially well to H<sub>2</sub>O<sub>2</sub> therapy. First, keep in mind that there are two methods of administering the peroxide-1) orally and 2) intravenously. While most conditions respond remarkably to oral ingestion, emphysema is one condition in which intravenous infusion can be a godsend.

Emphysema involves destruction of the alveoli (the small air sacs in the lungs). Although chemical fumes and other irritants can cause the destruction, it is most often the result of smoking. As the disease progresses, the patient finds it more and more difficult to breathe. A wheel chair and supplemental oxygen become necessary as the disease progresses. Lack of adequate oxygen reaching the tissues forces the heart to pump more forcefully. This leads to high blood pressure, enlargement of the heart itself and eventually heart failure. Conventional medicine offers little help for emphysema. There is no cure. The best that can be hoped for is symptomatic relief and the prevention of any serious complications that might result in death. H<sub>2</sub>O<sub>2</sub> therapy can offer more. Using 1 ounce of 35% peroxide per 1 gallon of non-chlorinated water in a vaporizer improves nighttime breathing tremendously. But intravenous infusion holds the real key to relief. It has the ability to cleanse the inner lining of the lungs and restore the ability to breathe.

We continue to hear the same story from Dr. Farr and others who use intravenous infusion for emphysema and congestive lung problems. Within minutes oxygen from hydrogen peroxide begins to bubble up between the membrane lining the lungs sacs and the accumulated mucus. (Dr. Farr refers to this as the "Alka-Seltzer effect.") The patient begins to cough and expel the material that has accumulated in the lungs. The amount of bubbling, coughing, and cleansing can be regulated by simply turning the

H2O2 on and off. As the peroxide clears the lung surface and destroys the bacterial infections, the patient regains the ability to breath more normally. We continue to receive reports from patients for whom the technique has improved breathing so much that a wheelchair and supplemental oxygen are no longer needed. If you would like to find a doctor in your area trained in the use of intravenous H2O2 infusion, contact the **International Bio-Oxidative Medicine Foundation (IBOM), P.O. Box 13205, Oklahoma City, OK 73113 at (405) 478-4266**. They can provide names and addresses of doctors using the procedure in your area.

If emphysema were the only ailment successfully treated with H2O2 therapy, it would still rank as one of the top health discoveries of all time. Fortunately, H2O2 works wonders on a multitude of health problems. It does so by increasing tissue oxygen levels. A closer look at how we have decreased the availability of external and internal oxygen, will show you just how important this can be. If you were not too occupied with trying to hide dissection specimens in the other student's desks, you might remember from elementary science courses that our atmosphere contains about 20% oxygen. That is under ideal circumstances. It has recently been reported that in many of our more polluted cities, there levels have dropped to around 10%! (I have already mentioned how less hydrogen peroxide-containing rain is reaching the earth's surface. With increased pollution it is reacting with airborne toxins before it even reaches the ground.) And everyone, by now, knows the oxygen-generating rain forests are being destroyed worldwide, which further reduces available oxygen. Internal oxygen availability is also under attack.

Chlorination of drinking water removes oxygen. Cooking and over-processing of our foods lowers their oxygen content. Unrestrained antibiotic use destroys beneficial oxygen-creating bacteria in the intestinal tract. Dr. Johanna Budwig of Germany has shown that for proper cellular utilization of oxygen to take place, our diets must contain adequate amounts of unsaturated fatty acids. Unfortunately, the oils rich in these fatty acids have become less and less popular with the food industry. Their very nature makes them more biologically active, which requires more careful processing and gives them a shorter shelf-life. Rather than deal with these challenges, the food industry has turned to the use of synthetic fats and dangerous processes like hydrogenation.

It's obvious that our oxygen needs are not being met. Several of the most common ailments now affecting our population are directly related to oxygen starvation. Asthma, emphysema, and lung disease are on the rise, especially in the polluted metropolitan areas. Cases of constipation, diarrhea, intestinal parasites and bowel cancer are all on the upswing. Periodontal disease is endemic in the adult population of this country. Cancer of all forms continues to increase. Immune system disorders are sweeping the globe. Chronic fatigue, "Yuppie Flu" and hundreds of other strange viral diseases have begun to surface. Ironically, many of the new "miracle" drugs and nutritional supplements used to treat these conditions work by increasing cellular oxygen (oftentimes through H2O2 formation). For example, the miracle nutrient, Coenzyme Q10, helps regulate intercellular oxidation. Organic germanium, which received considerable publicity not too long ago, also increases oxygen levels at the cellular level. And even substances like niacin and vitamin E promote tissue oxidation through their dilation of blood vessels.

Hydrogen peroxide is only one of the many components that help regulate the amount of oxygen getting to your cells. Its presence is vital for many other functions as well. It is required for the production of thyroid hormone and sexual hormones. (Mol Cell Endocrinol 86;46(2): 149-154) (Steroids 82;40(5):5690579). It stimulates the production of interferon (J Immunol 85;134(4):24492455). It dilates blood vessels in the heart and brain (Am J Physiol 86;250 (5 pt 2): H815-821 and (2 pt 2):H157-162). It improves glucose utilization in diabetics (Proceedings of the IBOM Conference 1989, 1990, 1991). The closer you look at hydrogen peroxide, the less surprising it becomes that it can help such a wide variety of conditions.

The following is only a partial listing of conditions in which H2O2 therapy has been used successfully. (Many of these conditions are serious, if not life-threatening. As always, I would highly recommend seeking the advice and guidance of a doctor experienced in the use of these techniques.)

Allergies Headaches  
Altitude Sickness Herpes Simplex  
Alzheimer's Herpes Zoster  
Anemia HIV Infection  
Arrhythmia Influenza  
Asthma Insect Bites  
Bacterial Infections Liver Cirrhosis  
Bronchitis Lupus Erythematosus  
Cancer Multiple Sclerosis  
Candida Parasitic Infections  
Cardiovascular Disease Parkinsonism  
Cerebral Vascular Disease Periodontal Disease  
Chronic Pain Prostatitis  
Diabetes Type 11 Rheumatoid Arthritis  
Diabetic Gangrene Shingles  
Diabetic Retinopathy Sinusitis  
Digestion Problems Sore Throat  
Epstein-Barr Infection Ulcers  
Emphysema Viral Infections  
Food Allergies Warts  
Fungal Infections Yeast Infections  
Gingivitis

### Grades of Hydrogen Peroxide

Hydrogen peroxide is available in various strengths and grades.

A) **3.5% Pharmaceutical Grade:** This is the grade sold at your local drugstore or supermarket. This product is not recommended for internal use. It contains an assortment of stabilizers which shouldn't be ingested. Various stabilizers include: acetanilide, phenol, sodium stanate and tetrasodium phosphate.

B) **6% Beautician Grade:** This is used in beauty shops to color hair and is not recommended for internal use.

C) **30% Reagent Grade:** This is used for various scientific experimentation and also contains stabilizers. It is also not for internal use.

D) **30% to 32% Electronic Grade:** This is used to clean electronic parts and not for internal use.

E) **35% Technical Grade:** This is a more concentrated product than the Reagent Grade and differs slightly in that phosphorus is added to help neutralize any chlorine from the water used to dilute it.

F) **35% Food Grade:** This is used in the production of foods like cheese, eggs, and whey-containing products. It is also sprayed on the foil lining of aseptic packages containing fruit juices and milk products. **THIS IS THE ONLY GRADE RECOMMENDED FOR INTERNAL USE.** It is available in pints, quarts, gallons or even drums. Various suppliers are mentioned later in this article.

G) **90%:** This is used as an oxygen source for rocket fuel.

Only 35% Food Grade hydrogen peroxide is recommended for internal use. At this concentration, however, hydrogen peroxide is a very strong oxidizer and if not diluted, it can be extremely dangerous or even fatal. Any concentrations over 10% can cause neurological reactions and damage to the upper gastrointestinal tract. There have been two known fatalities in children who ingested 27% and 40% concentrations of H<sub>2</sub>O<sub>2</sub>. Recently, a 26 month old female swallowed one mouthful of 35% H<sub>2</sub>O<sub>2</sub>. She immediately began vomiting, followed by fainting and respiratory arrest. Fortunately, she was under emergency room care and although she experienced erosion and bleeding of the stomach and esophagus, she survived the incident. When she was re-examined 12 days later, the areas involved had healed (J Toxicol Clin Toxicol 90;28(1):95-100).

35% Food Grade H<sub>2</sub>O<sub>2</sub> must be

1) handled carefully (direct contact will burn the skin--immediate flushing with water is recommended).

2) diluted properly before use. 3) stored safely and properly (after making a dilution the remainder should be stored tightly sealed in the freezer).

One of the most convenient methods of dispensing 35% H<sub>2</sub>O<sub>2</sub> is from a small glass eye dropper bottle. These can be purchased at your local drugstore. Fill this with the 35% H<sub>2</sub>O<sub>2</sub> and store the larger container in the freezer compartment of your refrigerator until more is needed. Store the eye dropper bottle in the refrigerator. The generally recommended dosage is outlined in the chart below. The drops are mixed with either 6 to 8 ounces of distilled water, juice, milk or even aloe vera juice or gel. (Don't use chlorinated tap water to dilute the peroxide!)

### Suggested Protocol

The program outlined is only a suggestion, but it is based on years of experience, and reports from thousands of users. Those who choose to go at a slower pace can expect to progress more slowly, but that certainly is an option. The program is not carved in

stone and keep in mind that it can be adapted to fit individual needs. Individuals who have had transplants should not undertake an H2O2 program. H2O2 stimulates the immune system and could possibly cause a rejection of the organ.

#### Day # -Number of Drops/ Times Per Day

- 1 - 3 / 3
- 2 - 4 / 3
- 3 - 5 / 3
- 4 - 6 / 3
- 5 - 7 / 3
- 6 - 8 / 3
- 7 - 9 / 3
- 8 - 10 / 3
- 9 - 12 / 3
- 10 - 14 / 3
- 11 - 16 / 3
- 12 - 18 / 3
- 13 - 20 / 3
- 14 - 22 / 3
- 15 - 24 / 3
- 16 - 25 / 3

#### Maintenance Dosage

In most situations after the above 21 day program, the amount of H2O2 can be tapered off gradually as follows:

- 25 drops once every other day for 1 week
- 25 drops once every third day for 2 weeks
- 25 drops once every fourth day for 3 weeks

This can then be reduced to between 5 and 15 drops per week based on how one feels. Those with more serious problems will often benefit from staying on 25 drops three times a day for one to three weeks, then tapering down to 25 drops two times daily until the problem is resolved (possibly as long as six months). Those with chronic systemic Candidiasis may need to start with 1 drop three times a day, then 2 drops three times a day before starting the above schedule. **It is important that H2O2 be taken on an empty stomach.** This is best accomplished by taking it either one hour before meals or three hours after meals. If there is food in the stomach, the reaction of H2O2 on any bacteria present may cause excess foaming, indigestion, and possibly even vomiting. Additionally, some animal research indicates that when H2O2 given orally combines with iron and small amounts of vitamin C in the stomach, hydroxyl radicals are created (J Inorg Biochem 89;35(1):55-69). The bleach-like aftertaste of H2O2 can be lessened by chewing one of the sugar-free cinnamon gums. Some individuals taking H2O2 immediately before bedtime have a difficult time getting to sleep. This is probably due to a sense of alertness triggered by an increase of oxygen at the cellular level. The oral dosage schedule is basically the same for all conditions. There are several points to keep in mind, however.

Some individuals may experience upset stomach. If this occurs it is recommended that one not stop the program, but rather remain at the current dosage level or reduce it to the previous level until the problem stops. (Some patients have been able to solve the

nausea problem by taking three or four lecithin capsules at the same time they take the H2O2.) During the program it's not uncommon to experience what is known as a healing crisis. As dead bacteria and toxins are released from your body it may temporarily exceed your capacity to eliminate them quickly enough. In some individuals this overload may cause fatigue, diarrhea, headaches, skin eruptions, cold or flu-like symptoms, and/or nausea. One should not discontinue using the peroxide to stop this cleansing. By continuing the program, toxins will clear the body sooner and this healing crisis will pass rather quickly.

If you are not already taking vitamin E and an acidophilus product, I recommend starting them before going on H2O2. Vitamin E can make more efficient use of any oxygen available and acidophilus will help re-establish the beneficial bacterial flora in the lower bowel and also help in the internal production of hydrogen peroxide.

### Making and Using 3% Solutions of H2O2

A 3.5% solution can be made quite easily by first pouring 1 ounce of 35% H2O2 into a pint jar. To this add 11 ounces of distilled water. This will make 12 ounces of 3.5% H2O2. 3.5% H2O2 has a variety of medicinal uses.

1. Three tablespoons mixed with a quart of non-chlorinated water makes a good enema or douche formula.
2. It can be used full strength as a mouthwash or mixed with baking soda for toothpaste.
3. It can be used full strength as a foot bath for athlete's foot. (Diabetics have found relief from circulation problems by soaking their feet in 1 pint of 3% peroxide mixed with 1 gallon of warm, non-chlorinated water for 30 minutes nightly.)
4. A tablespoon added to 1 cup of non-chlorinated water can be used as a nasal spray. Depending on the degree of sinus involvement, one will have to adjust the amount of peroxide used. I have seen some who can use it at the full 3% strength and others who had difficulty with using a few drops and mixed with a cup of water.
5. 3.5% H2O2 can be added to pets drinking water at the rate of 1 ounce per quart of non-chlorinated water. Sick cattle reportedly benefit from 1 pint (of 3%) to each 5 gallons of water. (Chickens and cows have remained healthy by using 8 ounces of 35% H2O2 per 1,000 gallons of drinking water.)

### Additional Information

There are two sources you should contact if you have an interest in using hydrogen peroxide therapy. The first, ECHO, was founded by Father Richard Willhelm and is run by Walter Grotz. Their information packet includes a sample newsletter, a list of H2O2 distributors and several other items. The packet is being made available to interested ALTERNATIVES readers for only \$3. Their address is

ECHO Box 126  
Delano, MN 55328

If you have an interest in contacting doctors who provide intravenous hydrogen peroxide therapy you can write to the International Bio-Oxidative Medicine Foundation (IBOM) at the address listed earlier in this article. You should also be aware that there are now numerous hydrogen peroxide products on the market. Some

are simply peroxide that has been flavored and mixed with sea minerals, aloe vera, inner tree bark or other ingredients to make the peroxide more palatable (Superoxy, Oxy Toddy, etc.).

Others claim to have developed products that deliver more oxygen than does simple hydrogen peroxide (*Aerox*, *Anti-Oxid-10*, *Di-Oxychloride*, *Aerobic 07*, *Aqua Pure*, etc.). Basically you'll end up paying a small fortune and at best achieving the same results you can get for pennies by using hydrogen peroxide.

## Conclusion

Hydrogen peroxide is one of the few simple miracle substances still available to the public. Its safety and multiple uses ranks it right up there with DMSO. If you've never used either of these compounds you are overlooking two of the most powerful healing tools ever discovered. Most of us started on hydrogen peroxide shortly after birth. Not only does mother's milk contain high amounts of H<sub>2</sub>O<sub>2</sub>, the amount contained in the first milk (colostrum) is even higher. This seems only reasonable now that we know one of its main functions is to activate and stimulate the immune system. Although I am a strong supporter of H<sub>2</sub>O<sub>2</sub> therapy, I am not suggesting that everyone needs to be using it. There are probably some individuals whose health and well-being would not be enhanced with hydrogen peroxide. But there are also millions of others who are suffering needlessly because they either do not know about hydrogen peroxide or they have been misinformed about its use.