

Hydrogen Peroxide - Curse or Cure?

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ALTERNATIVES Newsletter Editor

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.)

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 H₂O (water). In nature oxygen (O₂) 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. H₂O₂ 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% H₂O₂ 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.

While we are discussing enemas and douches, there is another misconception about H₂O₂ 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 H₂O₂.

On the other hand, most strains of harmful bacteria (and cancer cells) are anaerobic and cannot survive in the presence of oxygen or H_2O_2 .

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_2O_2 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_2O_2 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_2O_2 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_2O_2 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).

We are just beginning to learn exactly how H_2O_2 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.

Let's look at several conditions that seem to respond especially well to H₂O₂ therapy. First, keep in mind that there are two methods of administering the peroxide-orally and 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. H₂O₂ 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 H_2O_2 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 H_2O_2 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 Erythematosis
- 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.

3% 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 stannate and tetrasodium phosphate.

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

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

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

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.

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...**

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 H₂O₂.

Recently, a 26 month old female swallowed one mouthful of 35% H₂O₂. 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 H₂O₂ 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% H₂O₂ is from a small glass eye dropper bottle. These can be purchased at your local drugstore. Fill this with the 35% H₂O₂ 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!)

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
16-21	26	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 after-taste 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.

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Additional Uses For Food Grade Hydrogen Peroxide

Food Grade (35%) Hydrogen Peroxide can be used in many different ways to introduce oxygen into the body and around the house.

Caution: If you spill H₂O₂ concentrate on your skin, flush immediately with water. Avoid any contact with eyes.

Vegetable soak: Add 1/4 cup 3% H₂O₂ to a full sink of cold water. Soak light skinned (light 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. 5%. Drain, cover and refrigerate.

To Freshen Kitchen: Keep a spray bottle of 3% (straight) in the kitchen. Use it to wipe off counter tops and appliances. It disinfects and gives the kitchen a fresh smell. Works great inside the refrigerator and kids' school lunch boxes.

Marinade: Place meat, fish or poultry in a casserole (avoid using aluminium pans). Cover with a dilute solution of equal parts of water and 3% H₂O₂. Place loosely covered in refrigerator for 1/2 hour. Rinse and cook.

In the Dishwasher: Add 2 oz. of 3% hydrogen peroxide to your regular washing formula.

Sprouting Seeds: Add 1 ounce 3% hydrogen peroxide to 1 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 3% hydrogen peroxide in 1 quart of water. Water or mist plants with this solution.

Insecticide Spray: Mix 8 ounces black strap molasses or white sugar, and 8 ounces 3% hydrogen peroxide in 1 gallon of water.

Humidifiers/Steamers: Use 1 pint 3% hydrogen peroxide to 1 gallon of water.

Washing/Laundry: Add 8 ounces of 3% to your wash in place of bleaches.

Shower: Keep a spray bottle of 3% hydrogen peroxide in the shower. Spray your body after washing avoiding the eyes, eyebrows and hair.

Facial: Use 3% on a cotton ball as a facial freshener after washing. Keep away from eyebrows.

Rejuvenating Detoxifying bath: Use about 2 quarts 3% hydrogen peroxide to a tub of warm water. Soak at least 1/2 hour, adding hot water as needed to maintain a comfortable water temperature.

Foot Soak: Soak feet in warmed 3% H₂O₂ until condition is improved.

Mouthwash: Use 3% H₂O₂. Add a dash of liquid chlorophyll for flavoring if desired.

Toothpaste: Use baking soda and add enough 3% H₂O₂ to make a paste. Or, just dip your brush in 3% H₂O₂ and brush.

Douche: Add 6 tablespoons of 3% H₂O₂ to a quart of warm distilled water.

Colonic or Enema: For a colonic, add 1 cup (8 ozs./240 cc) 3% H₂O₂ to 5 gallons warm water. (Do not exceed this amount) For an enema, add 1 tablespoon of 3% H₂O₂ to a quart of warm distilled water.

Pets: For small animals (dogs & cats) use 1 oz. 3% H₂O₂ to 1 quart of water.

Swimming Pool and Hot Tub usage: To “SHOCK” your pool or hot tub, a relatively high level is used at a ratio of 1 cup of 35% concentration for every 250 gallons. DO NOT RUN your pump continuously. Rather, run it only long enough to circulate the water and then turn off the pump. Ideally, you should add the h2o2 at sunset and allow the water to sit 24 hours before turning the pump back on. The tub or pool may be used afterwards. It is NOT necessary to shock your pool or hot tub if you are starting with fresh water. “MAINTENANCE”: This depends quite a bit on the water source and the amount of organic materials that enter the water (dust, leaves, number of people using the pool etc.) If you are starting with new water, a good starting point is 1 cup of 35% h2o2 for every 500 gallons of water.

[INTERNAL USAGE \(www.dfwx.com/answers.htm\)](http://www.dfwx.com/answers.htm):

Caution must be used for any internal usage of H₂O₂ product. There are no established standards and the age, weight and general health of an individual highly affects the safe and beneficial levels of supplemental usage.

JUTRIAN RX:

Jutrian Rx is U.S.D.A. certified 35% Food Grade Hydrogen Peroxide that is supplemented with minerals and amino acids.

Usage: Not more than 8 drops per 8 ounces of distilled or filtered water between meals 2 to 3 times a day, 5 days a week.

GUARDIAN OF EDEN H₂O₂:

Guardian Of Eden hydrogen peroxide is undiluted and unaltered U.S.D.A. 35% Food Grade Hydrogen Peroxide.

Usage: Not more than 4 drops per 8 ounces of distilled or filtered water between meals, 2 to 3 times a day, 5 days a week.

HIGHER LEVEL USAGE:

Any higher concentration levels of H₂O₂ internal usage should be approached very gradually. While H₂O₂ supplementing can be very beneficial, excessive levels can be extremely harmful.

WARNING SIGNS OF EXCESSIVE USAGE:

H₂O₂ has a distinct taste to it. However, if there is any stinging sensation in the mouth the level is extremely too high. If there is any internal sense of stinging or stomach pain, drink as much water as possible and seek immediately emergency medical attention. Never induce vomiting as this can cause severe lung tissue damage.

Occasionally people who use H₂O₂ for the first time will report diarrhea. This is not uncommon and should end the same day. Some attribute this to the body flushing out waste materials.

Stomach pain, however, is a serious warning sign of excessive concentration and should be taken seriously. If the stomach pain is intense, immediate emergency care is an absolute necessity.

If you are gradually increasing levels of H₂O₂ consumption across a period of time, warning signs that the levels are becoming excess are a sensation of stomach gas or blood shot eyes. You should discontinue usage for a day or two, and then resume at a lower level of concentration.

WHY DISTILLED OR FILTERED WATER?

H₂O₂ decomposes (released its extra oxygen molecule) in interaction with organic and

certain metallic materials which are found in tap, spring and well water. This causes the H₂O₂ to release its oxygen prematurely before absorption.

HOW TO STORE H₂O₂

Store H₂O₂ in a very safe location and NEVER put it undiluted in an unmarked bottle.

STORE H₂O₂ PRODUCTS IN THE DARK

H₂O₂ rapidly decomposes in a photo-reaction to U.V. light. This will cause the H₂O₂ to weaken in concentration and will cause the bottle to expand and possibly burst. We suggest SLIGHTLY loosening the cap (barely) to allow for any gas build up to bleed off rather than burst the bottle is stored for an extended period. This is particularly important for Jutrian RX. Storing in the dark means total darkness (though the brief refrigerator light when open or while mixing on under kitchen light is OK.)

DO NOT STORE IN FREEZER

There is a false view commonly taken that H₂O₂ should be stored in the freezer. If H₂O₂ is frozen at too cold a temperature, it will separate (decompose) as the water and H₂O₂ freeze at different temperatures. Do not store H₂O₂ in a freezer.

STORE IN REFRIGERATOR

Small bottles of H₂O₂ are best stored in a refrigerator as it is cold and dark. However, this is only the case if this is NOT accessible to children or incompetent adults. Otherwise, simply store H₂O₂ in any cool, dark location. Extra bottles are best stored in their box, the bottle upright, and the top SLIGHTLY loosened.

HOW LONG CAN H₂O₂ BE STORED?

At temperatures of 70 degrees or lower (but not freezing), H₂O₂ will decompose at a rate of less than 1% a year. Higher temperature will increase decomposition, but it not insignificantly unless the temperature is well over 80 degrees. Do not store H₂O₂ near a heat source such as a hot water heater.

Properly stored, H₂O₂ can be kept for many years without substantial lose of strength. Given its anti-bacteria and anti-fungus nature, H₂O₂ will never spoil.

The primary cause of H₂O₂ losing its potency is prolonged exposure to UV light from any source. It is very important to store H₂O₂ in the dark.

HOW LONG CAN JUTRIAN RX BE STORED?

Jutrian RX is concentrated H₂O₂ with minerals and amino acids. These substances interact with each other, breaking each down to their base atomic or molecular structures to maximize cellular absorption when used.

This process takes months and Jutrian RX is accordingly “aged” before shipment.

To some degree, the ingredients will continue to interact with each other, which can cause the bottle to swell and burst if stored for a long period of time, stored near heat or exposed to UV light.

Jutrian RX ideally is stored in a refrigerator and the top is slightly loosened - though not enough to allow spillage or the top to come off - to allow gas expansion.

Jutrian RX will lose its strength at a rate for approximately 6% a month if stored in a refrigerator. However, it will never "spoil" or become contaminated as it is H₂O₂ based. Rather, it loses its level of concentration.

HOW OLD IS TOO OLD TO BE SAFE TO USE?

H₂O₂ is an extremely powerful agent against bacteria and fungus. A 20 year old bottle of any G.O.E. H₂O₂ product would still be safe to use if it had been stored in the dark. The only effect of aging would be that the concentration level of the H₂O₂ will reduce with time. However, it would have to drop to below 2% to begin to lose its ability to destroy any micro-organism that otherwise might contaminate other liquids.

H₂O₂ or JUTRIAN RX FOR INTERNAL USAGE?

There would be no reason to use both as both contain H₂O₂. However, Jutrian Rx contains virtually all trace minerals and many amino acids. If you have and use Jutrian Rx, there is no reason to use H₂O₂ internally. However, both have the same H₂O₂ benefit potential.

WOULD TAKING MINERALS, AMINO ACIDS AND H₂O₂ BE THE SAME AS USING JUTRIAN RX?

While these could be the same ingredients, the answer is no.

The source of minerals for people used to be in their food. However, most agricultural land has been depleted of the minerals in the soil for decades. This has essentially eliminated the plant source for minerals in a person's diet.

Unfortunately, when plants processed minerals in their own life-cycle, they broke down the minerals to a level the plant used at its own cellular level. Therefore, the minerals then were broken down to a level then also absorbable when the plants were eaten - directly or indirectly as livestock crops.

Many minerals are not easily broken down in digestion. An analogy would be that if a person swallowed an old penny. On one level, the person would have taken thousands of milligrams of copper. However, less than 1% would be broken down and absorbed by the body and the rest would just pass through.

This is the flaw or misleading aspect of most mineral supplements. It is not directly relevant how many mgs of any mineral are consumed. Rather, the only health relevance is how much is actually absorbed and in a way usable at the cellular level.

Though not toxic, concentrated H₂O₂ is highly corrosive to many minerals and all organic substances. It is one of the few "acids" (it is not technically an acid) that is not toxic. H₂O₂ in concentrated form will break most minerals and most amino acids down to their most basic atomic or molecular form - rather than remaining large clumps of atoms or minerals combined together and too large for a cell to absorb.

Jutrian RX is a unique product and one that takes time to produce. When first mixed with its long list of trace minerals and amino acids, it is a very dark liquid. This is stored in complete darkness for months, while periodically shaken (or vibrated is more accurate). The resulting effect is the H_2O_2 interacts with the minerals and amino acids, breaking them down to individual molecular structures and atoms. The result is a nearly clear H_2O_2 liquid. The H_2O_2 does not destroy the ingredients. Rather, it breaks them apart. The result is the most absorbable possible form of minerals and amino acids.

This first discovery of the potential benefits of using H_2O_2 in relation to minerals was with the extremely reactive relationship between silver and H_2O_2 . It was well known that H_2O_2 radically decomposes upon contact with silver and was the basis for H_2O_2 powered rockets. However, the question came of what happened to the silver if put into H_2O_2 . Did it just vanish? The answer was no. Rather, the silver was torn down to individual silver atoms.

Cells can not absorb many mineral that are in a clump. Cells do need and absorb mineral atoms. This is the purpose of Jutrian RX.

While taking a minerals supplement, an amino acids supplement and using H_2O_2 supplementing would have the same ingredients, it is not the same in terms of potential effect and benefit.

AIR BORN H2O2 DANGERS

Generally for personal usage levels and quantities there is no airborne dangers of H_2O_2 . H_2O_2 is not poisonous or toxic.

However, if you use large amounts in an enclosed area (such as for furniture stripping etc.) you need to have fresh air circulating. A HIGH level of H_2O_2 vapors can create a corrosive effect, which you would first notice as a burning sensation in your nose. If this occurs, simply go to a fresh air area and use a fan to blow out the air in the room. Again, H_2O_2 is not poisonous or toxic. The WARNING SIGN for an excessive build up of H_2O_2 fumes is a stinging sensation in your nose.