



RISKS OF OZONE THERAPY AND HOW TO AVOID THEM

Ozone therapy has been around for over 100 years and it's one of the safest therapies there is. Still, it's important to respect a few things and take certain precautions when handling ozone. When using ozone generators at home for self-treatment, please make sure to use the following guidelines:

- use ozone concentrations below 72 gamma (although topical applications like saunas, limb bagging, and cupping are safe at outputs higher than 72 gamma) (*)
- oxygen (O₂) flow during insufflations should be below 1/8 LPM (**) (= 0.125 liters per minute)
- do not direct ozone towards the eyes
- do not breathe ozone straight from the hose
- have either: a) a running fan blow at your face, or b) wear a 3M mask with the filter number 2097 [available at Home Depot for \$25]; plus open windows
- have a good amount of Vitamin C powder at home. Should you feel that you have accidentally breathed in too much ozone or that you have exposed yourself in any other way to too much or too high an ozone concentration, immediately dissolve a larger amount of Vitamin C and drink it.

Below is a good chart to show the typical range of effects that you can expect to find with different gamma levels. Some people will find this chart to be helpful for determining what gamma rates will be effective. It is important to understand that most of the time you will need to titrate your dose up, so that you can minimize potential side-effects such as ozone rash or a Herxheimer reaction. That's why it is good to start on the lower end of the gamma range and build your way up. Otherwise if you jump right in to doing insufflations in the 50 gamma range, you could have a mass die off of bacteria, which can cause some unpleasant side effects. That is why it is important to start on the lower settings and incrementally build up the doses you are taking over several weeks. Once you have titrated up, then this chart will be most helpful.

GENERAL EFFECTS OF DIFFERENT OZONE CONCENTRATIONS	
30 to 55 ug/ml ($< \sim 3.5\%$)	At this concentration level the 3 main health restoring properties of ozone, dealing with diminished oxygen levels and a compromised immune system are: <ul style="list-style-type: none"> • Oxidative influence on the oxygen metabolism i.e. Enhanced ATP production is important with stroke and burns - decreases swelling at injured site, minimizing damage and subsequent scarring - <u>if ozone is administered within 48 hours of injury.</u> • Increases antioxidant enzymes in the body • Activation of immuno-competent cells to stimulate the immune system - Causes the greatest increase of immune system messengers interferon (50ug/ml gives greatest increase), Tumor Necrosis Factor(TNF) and Interleukin-2 (IL-2), setting off a cascade of positive changes throughout the immune system..
55 to 70 ug/ml range (3.5-5%)	Exhibits a strong germicidal effect by oxidative destruction, useful for killing bacteria, viruses and fungi, topically and internally, which makes ozone ideal for treating infected wounds, intestinal infections, vaginal infection and topical fungal diseases
> 72 ug/ml ($>5\%$)	Shown to suppress the immune system and inhibit tissue generation.

Ozone saunas

Risks: extremely itchy, sometimes oozing rash, mostly over the abdomen and back; usually looks like small red dots, but can also look like slightly bigger red round circles or streaks.

Solution:

- if a rash sets in, reduce frequency, ozone concentration, and/or length of time of the saunas, but do not stop entirely
- apply a stream of hot and cold water to the itching skin for a few minutes each. This can happen in people with low antioxidant levels, so try to increase your antioxidant intake in your diet, versus taking supplements. (<https://www.mypromolife.com/blog/2016/03/ozone-vs-antioxidants-are-oxidants-ever-ok>)
- apply or perform any of the following:

- 1) Liver flush
- 2) Protease enzymes
- 3) Ozonated olive oil, topically
- 4) Gardener's Dream Cream, topically
- 5) Activated charcoal slurry, internally
- 6) Vitamin B12: up to 1500 micrograms at a time
- 7) Oat juice, topically
- 8) Hydrogen peroxide 3%, topically
- 14) Lycopodium powder
- 15) Homeopathics: Psoriaheel; Schwef-Heel
- 16) Boric acid powder, topically
- 17) Bentonite powder paste, topically
- 18) Safflower oil, topically
- 19) Coconut palm butter, topically
- 20) Cumarindine
- 21) Nature Dream "Cu-Well" Cream

- 9) Colloidal silver, topically
- 10) Emu oil, topically
- 11) Vodka, topically
- 12) The Itch Cream, topically
- 13) Calcium lactate

- 22) Zambesia Botanicals herbal skin cream
- 23) Bathe in tub with Masada Dead Sea Salts
- 24) Activated charcoal slurry
- 25) Mint oil

Rectal insufflations:

Risks: colon rupture

Solution:

- use an insufflation bag
- if you use a bag and squeeze it manually, take your time. Allow the procedure to last a few minutes.
- if performed without a bag, do not use oxygen flows of more than 1/8 LPM (so stay at 1/8, 1/16, or 1/32 LPM.)
- do not introduce more than 500ml of gas at one time. Please refer to the chart below to help you determine the volume in your bag depending on the flow rate and time to achieve the desired gas amount.

Insufflation Bag Amounts and Fill Times

	125cc	250cc	500cc	750cc	1000cc
1 LPM	7.5 sec	15 sec	30 sec	45 sec	1 min
3/4 LPM	11 sec	22.5 sec	45 sec	1 min	1.5 min
1/2 LPM	15 sec	30 sec	1 min	1.5 min	2 min
1/4 LPM	30 sec	1 min	2 min	3 min	4 min
1/8 LPM	1 min	2 min	4 min	6 min	8 min
1/16 LPM	2 min	4 min	8 min	12 min	16 min
1/32 LPM	4 min	8 min	16 min	24 min	32 min

Vaginal insufflations

Risks: gas embolism. There is only one case where it was suspected that a woman died due to a gas embolism after a certain sexual practice which, according to the coroner, had pushed air through an open vein in her uterus and caused an air embolism. As far as I know, there is no reported case where this has ever occurred during vaginal ozone insufflations. Still, Dr. Rowen prefers to make people aware of it.

Solution:

- If you suspect having a tear or a wound due to trauma or other causes in your reproductive system, do not attempt vaginal insufflations. Otherwise you're running a risk of pushing air into an open vein which could cause a gas embolism.
- use pure oxygen only

Ear insufflations

Risks: excruciating pain due to blocked Eustachian tubes. Sometimes, as part of a Herxheimer reaction to the EIs, the ears start discharging oxidized toxins in the form of lymph fluid. That can lead to inflammation inside the ears and blockage. The resulting pain is among the most agonizing experiences one can imagine. The pain and blockage resolve by themselves usually within 10 to 14 days, if no further ozone is applied, without any lasting damage.

Solution:

- In order to prevent that from happening it's suggested that one starts very low and slow. A maximum of 5 minutes of EIs, 3 times a week for several weeks might be necessary to prevent that extreme reaction from taking place. Some might have to start as low as 30 seconds per session. If in that time there is no pain, and the swelling, discharge, and itchiness are manageable, one can start increasing slowly until one reaches a maximum of 20 minutes per day. Once the pain starts to occur it's important to stop the EIs immediately and wait for the pain to subside. That can take up to 2 weeks.
- do a series of ozone IVs before switching to ear insufflations.
- use a humidifier to help prevent your ears from getting dried out by the ozone/oxygen gas
- dab a little olive or coconut oil around where the earbuds fit into your ears

Breathing ozone bubbled through olive oil

Risks: the oil becomes saturated with ozone over time and does not produce ozonides anymore. One ends up breathing raw ozone instead of ozonides.

Solution:

- change the oil frequently, especially if you start experiencing harshness or irritation after the procedure
- clean oil bubbler before you are going to put a new supply of oil in
- soak the oil bubbler in alcohol and/or hot soapy water to help break down oil that has clumped up on the sides of the flask and also the stem, so that it won't clog the stem.

Cupping

Risks: itchy rash, same as after ozone saunas, see above.

Solution:

- use a humidifier to help prevent your skin from drying out or wet the skin where you are applying the cup

Drinking ozonated water

Risks:

- accidentally breathing in the outgassing ozone (which escapes the water and collects on the surface)
- painful abdominal bloating and gas when the ozone water reacts with food in the intestines

Solution:

- hold your breath while drinking ozonated water
- blow away the excess ozone on the surface before drinking
- wait 3 hours after your last meal before drinking ozonated water.
- after having ingested ozonated water, wait at least 15 minutes before you eat or drink anything
- do not put anything else in the water. Just use pure water. Preferably mineral or reverse osmosis filtered water. Distilled water is fine as long as you supplement with minerals afterwards. Adding salt is ok.

MAH (Major Autohemotherapy)

Risks: uncontrolled bleeding caused by anti-coagulants like heparin or sodium citrate necessary to perform MAH.

Solution:

- check for heparin allergy
- be aware that uncontrolled internal bleeding can happen at any point during anti-coagulant administration, even in people who do not have an allergy to anti-coagulants
- switch to other ozone protocols which do not call for anti-coagulants

DIV (Direct ozone IV)

Risks:

- if performed with proper equipment, at least 99% pure oxygen, and by a skilled and trained practitioner according to Dr. Robin's protocol, which is to inject it very slowly, then there is very little risk.
- If performed in any other way it can lead to a gas embolism and death, especially if anything else other than pure oxygen is injected into the person
- temporary discomfort and tightness in the chest

Solution:

- have it performed by a trained and experienced practitioner only
- if you chose to do it yourself, apply Dr. Robin's method, here are some instructions:
(<http://thepowerofozone.com/how-to-do-direct-ozone-iv-div/>)
- make sure you use at least 99% pure oxygen
- use medical grade ozone generators only
- use an airtight closed circuit when filling the syringe with ozone
- remain in a horizontal or reclined position for at least 30 min after the IV before you get up

(*) 1 gamma = 1 ug/ml = 1 mcg/ml = 1 microgram per milliliter = 1 g/m³ = 1 gram per cubic metre

(**) LPM = liter per minute