How I Used A Nebulizer As Part of My COVID Recovery



There's still so much we are learning about COVID-19. Earlier this summer, we shared the healing journey of one of our contributors, <u>nutritionist, chef and reiki master, Serena</u> <u>Poon,</u> who creates nutritional plans for L.A. clients like Kerry Washington and Jerry Bruckheimer.

In that interview, Serena quickly mentioned that she had

nebulized glutathione and we wanted to learn all the details. Knowing you too might be interested, we asked Serena to unpackseverything we wanted to know about this form of respiratory supplementation and/or drug treatment....

During my (and my sister's) personal journey with COVID (read the full story), I had shared a series of initial protocols, including foods and supplements, that we found supportive for our recovery. As a summary, my sister and I had very different experiences, despite being quarantined together and completely without contact with anyone else for about 10 weeks.

With my sister's experience, which was more acute but lasted about 3.5 weeks, we did not yet have access to some of the protocols and devices we later had access to while I was in my fifth week of having the virus. Some of those latter protocols included peptide support, oxygen therapy via an oxygen concentrator and the nebulization of certain supplements. Everything we did was under the supervision of a doctor (several, actually!). All that said, that these are not my medical suggestions as I'm not a doctor, but a report on what I did that helped in my own personal recovery.

While I had COVID, and even several weeks after recovering and testing negative *twice*, I still felt some respiratory challenges. Using a nebulizer with a compounded blend of glutathione, NAC and magnesium sulfate helped my respiratory constraints tremendously.

As both a health and wellness practitioner and someone who recovered from a long stint with COVID, I highly recommended having a nebulizer as a part of your household medical care kit, alongside your thermometer, oxygen saturation meter (pulse oximeter) and a wrist blood pressure device.

What the heck is a nebulizer?

A nebulizer is a small piece of medical equipment that is used to administer liquid medication or supplements, directly into the lungs and respiratory system. The direct delivery into the lungs reduces the dosage and the systemic side effects that can come with oral administration. The device converts the water-based solutions into a very fine mist that can be easily inhaled through a mouthpiece or a mask.

Are there different types of nebulizers?

There are 3 types of nebulizers, as there are three ways to convert the liquid into a mist:

Jet – which uses compressed air or air-blast atomization to make an aerosol Ultrasonic – which uses high-frequency vibrations to make an aerosol

Mesh – where the liquid passes through a very fine mesh to form the aerosol.

Typically, nebulizers are used for acute respiratory distress (asthma attacks), wheezing; chest tightness; severe cough; breathlessness; lung infections, cystic fibrosis; bronchiectasis; COPD (chronic obstructive pulmonary disease); lung injury; shortness of breath; sinus & respiratory infections; children and adults who have a hard time taking oral medication and supplements or inhalers.

Nebulizer are a more effective way to deliver medications/supplements than an inhaler because it does not require deep breathing.

Typically, the need to nebulize medication or supplements is preceded by an immune-compromised condition or infection. The immediate delivery of the mist into the lungs, blood stream and into the whole body systemically is almost as effective, but less invasive as IV administration. Particularly for children and those with small veins, nebulizing is a much better option, depending the condition and dosage needed.

We used two nebulizers, one by OMRON and one by Phillips, both were jet nebulizers and they were equally effective. Both companies are highly reputable with a long history of manufacturing medical devices and equipment. Depending on the website you go to, some may require a prescription from a doctor for purchase, but there are many sites that do not require an Rx (including Amazon).

As mentioned, we used a prescribed, compounded solution of liquid Glutathione, NAC (N-Acetylcysteine) and Magnesium with saline solution.

Glutathione is a powerful "master" antioxidant, an essential tri-peptide (glycine, cystine and glutamine) that is made in our liver and found in nearly every cell in our body. Because it is not easily absorbed orally (unless liposomal), glutathione is best taken in intravenously, intramuscular injection or nebulized so that it can bypass the digestive tract. Glutathione is a key factor in our immune response, inflammation of the lungs and respiratory tract, DNA repair, liver support, neutralization of chemical/free radicals/oxidative stress, detoxification process, neurodegenerative disorders, autoimmune diseases, chronic fatigue, regeneration of vitamins C & E, so many things!

Nebulized glutathione has been highly effective in treating the respiratory issues listed above, including my own during with COVID. This is because glutathione is found in the highest concentrations in the lungs and the liver. In the lungs, it is found in the epithelial lining fluid, which is the layer of cells that first come into contact with inhaled air (higher than in our blood serum). These cells are the first line of defense and maintaining high enough glutathione levels is necessary for immune support. Breathing in glutathione direction into the pulmonary tissue is most beneficial, not only for respiratory support but to the whole body systemically.

NAC is another potent antioxidant combined with glutathione as it acts as a precursor to cysteine, which supports the synthesis of glutathione, particularly when the need for it is increased, during oxidative stress and inflammation. NAC also reduces the inflammatory and oxidative stress environment created by the cytokine storm syndrome that has been prevalent in cases of cornonavirus. In addition to the benefits of glutathione alone, the combination of NAC and glutathione together in a nebulized treatment has also been shown to be effective for dissolving the mucous in sinus and respiratory infections, as well supportive for neurotransmitter balancing for issues related to addiction, anxiety and depression.

Separately, health and medical practitioners have used nebulized **magnesium** to treat asthma and other bronchial and respiratory symptoms. Magnesium acts as a cofactor in enzymatic reactions and works as a smooth muscle relaxant with bronchodilatory effects. When combined with the NAC and glutathione, magnesium works in synergy to promote easy breathing, dissolving of mucous and overall lung health. Although much of this may still be considered "offlabel nebulization", there are many naturopaths, respiratory therapists, pulmonologists and pharmacists that endorse this an alternative, non-invasive treatment for pulmonary issues or infections.

Although you can receive the glutathione (or combo) already prepared in liquid form, ready to go for the nebulizer, you can also use capsules and mix it with pure saline solution. Get the dosage recommendations and instructions from a doctor for best practices, but it can be done at home.

The differences between the type of nebulizers can also affect the type of treatment and dosage desired. We used ours once to twice a day for 15-20 minutes at a time. Always double check with your practitioner as to the best option for your goals and if you have a particular sensitivity to sulfites, or any of these supplements.

In addition to glutathione, NAC and magnesium, there are other colloidal alkalizing solutions that can be nebulized. Again, instructions and dosages come best from a medical practitioner, based on your needs, but supplements include: **NAD+, melatonin, food grade hydrogen peroxide 3%** (can be diluted), colloidal B vitamins, minerals and some oils. As with all supplements and medications, sides effects can vary depending on the individuals and the dosage.

With NAC, Glutathione and magnesium, there are typically little to no side effects as opposed to side effects from medication. However, for a person with difficulties in breathing, adjusting to a nebulizer may be challenging at first, due to the contraction of the airways and the temperature of the solution (usually it comes from the refrigerator). It can take a moment to adjust to allowing the mist into the airways and lungs, as opposed to trying to swallow through the throat and esophagus. Rarely, nebulizing can exacerbate an asthmatic reaction or a severe coughing fit, but always be conscious of signs of reaction the first times you use it.

It's also important to note that if someone has COVID-19, there needs to be extra caution in the administering of the nebulizer to the patient. Since we have been informed of the spread of the virus in droplets and mist in the air, there has to be an awareness that nebulizing can also place the virus in the air in the room of the recipient for 2 hours. So, take extreme care with sanitation, masks and other distancing need to be exercised. As with all respiratory and medical devices, proper care and sanitation should always be done to avoid any contamination.

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