

# What Toxic Wildfires Can Teach Us About COPD and COVID19

**Analysis by A Midwestern Doctor** 

June 19, 2023

#### **STORY AT-A-GLANCE**

- My overall sense from observing the wildfire illness and COVID-19 is that disease initially enters the airway tract and as it penetrates deeper, enters the lungs, then the smallest blood vessels lining the lungs, and finally the larger vessels of the body
- > This progression from superficial to deep vessels is also identical to COVID-19 infections and vaccine injuries
- > One of the most common causes of death in the United States is chronic diseases of the respiratory tract, chronic obstructive pulmonary disease (COPD) being the most common

A fairly under-recognized medical problem is large numbers of people becoming ill from an air pollutant (e.g., after the recent East Palestine train derailment). One of the most common causes of this is the smoke from wildfires converging on a single area. Recently, that resulted in New York city having the worst air quality in the world.



As wildfire illnesses share commonalities with spike protein injuries (e.g., many of the original COVID-19 treatment protocols were adapted from previous treatments used for those affected by wildfire smoke), and wildfire smoke can worsen spike protein injuries, I felt this was an important topic to discuss. First however, I will review two related conditions.

The 9/11 illness — One of the most impactful instances of an airborne illness occurred in New York on 9/11. Due to the Twin Towers having a variety of toxic substances within them (e.g., asbestos), their sudden collapse caused all of those substances to be released into the air, creating a dust that an air pollution expert and University of California Davis Professor Emeritus described as "wildly toxic."

At the time, despite knowledge to the contrary, the government (e.g., both New York City Mayor Giuliani and Bush's EPA) insisted the air was safe, and many of the first responders did not even wear masks, let alone proper respiratory equipment.

Many of them are now permanently disabled (as the medical system can't treat them), often being gaslighted in the process (as their injuries were frequently ascribed to simply being PTSD), and the process to get them compensation or support is still ongoing (as many parts of the government resisted doing anything to help them).

Many developed cancers, and more people have died from 9/11 illnesses than from the attacks themselves.

Some of the most common conditions certified by the World Trade Center Health Program were rhinosinusitis, gastroesophageal reflux disease (GERD), asthma, sleep apnea, cancer, post-traumatic stress disorder, respiratory disease, chronic obstructive pulmonary disease (COPD), depression, and anxiety disorder. The most common cancers were skin cancer and prostate cancer. A longer list of the covered conditions can be found here.

One of the noteworthy things about the 9/11 illness is how many individuals described continually experiencing air hunger even though their respiratory function was intact.

An integrative physician in New York (after testing their blood), in turn, concluded the air hunger was due to their mitochondrial respiration being impaired (I never worked with these patients, but I believe a case could also be made for blood sludging — discussed later in this article — creating the air hunger).

 Vog (Volcanic smog) — Due to how the Hawaiian islands formed, the newest (and largest) island has an active volcano that regularly erupts. Since Hawaii is also a highly desirable area to live in, it provides a unique window into what happens from regular exposure to volcanic smog.

Some of the most common effects of **vog** are headaches (thought to be due to heavy metals in the vog such as **mercury**, **selenium**, **arsenic**, **and iridium**) and sore throats (considered to be due to acidic sulfur compounds which primarily compose the vog).

Many are not bothered at all by the vog, some have lungs that are more sensitive (likely to the sulfur) but can give or take tolerate it, and over the years, I've heard of

many people who had to leave the island because they could no longer tolerate the vog.

In the areas where the vog is the worst (this is primarily Kona), those with asthma or COPD often have exacerbations of their existing pulmonary (lung) conditions. Some of the other conditions friends have heard of vog causing over the years include:

- Strange neurological disorders that were difficult to cure
- Low energy
- Additional breathing difficulties and damage to the lungs
- Weight loss
- Frequently coming down with viral respiratory infections

Numerous approaches exist for dealing with vog, and many of the most popular ones are various things thought to eliminate heavy metals.

**Note:** Vog is primarily an issue when the lava flow becomes obstructed (leading to it smoldering and smoking), something somewhat analogous to the diseases that onsets within the body when a fluid flow is obstructed).

#### Wildfire Illnesses

Now and then, a cluster of wildfires breaks out simultaneously and ruins the air quality in the areas where the smoke of those wildfires converges. I have watched this situation play out repeatedly while also corresponding with physicians and patients in the areas where they happened (as you learn a lot about the body when you see how it reacts to extreme stressors).

In turn, whenever I was asked by someone exposed to the smoke, I typically advise doing one or more of the following:

Leave the area until the fire is over.

- Try to stay inside.
- Wear an N-95 mask while outside.
- Consider getting a filter for your house (e.g., a decent HEPA filter) that can filter out the smoke particles.

When working with chronic inflammatory illnesses, there are two critical points to understand:

Everyone has a critical threshold. Before that point, their systems can essentially
compensate for the stresses already on them and new ones added on later.
However, once they pass the threshold, symptoms rapidly develop, tiny additional
stressors can significantly increase their symptoms, and it can become very
difficult to walk them back to where they were before they passed that threshold.

Two common (but not the only) things that push patients past this threshold are impaired fluid circulations (e.g., due to poor zeta potential) and impaired detoxification pathways.

**Note:** This dynamic can be analogized to "the straw that broke the camel's back," and also applies to many other ailments (e.g., ones that are unrelated to inflammation).

When an inflammatory illness passes that critical threshold, it disproportionately
affects the weak points in the patient's system (which will also typically be where
their symptoms initially arise).

With those exposed to wildfire smoke, colleagues and I have observed the following concerning issues tend to occur:

Existing circulatory disorders often worsen.

Patients with pre-existing chronic and complex inflammatory illnesses (e.g., mast cell activation syndrome, or Lyme disease) tend to be the most susceptible to becoming

ill from the smoke, especially if their system was already caught in an inflammatory loop.

During wildfires, we frequently observed acute exacerbations of pre-existing illnesses, (something also observed in these patients after they were vaccinated).

I believe those with spike protein injuries are also more susceptible to wildfire toxicity, but this has not yet been possible to properly assess since these injuries have only existed for a few years (at this point there are only anecdotal reports such as this one).

**Note:** This entire situation is analogous to one of the most common side effects of the COVID-19 vaccines: either a new autoimmune disorder or a worsening of a pre-existing condition.

To illustrate — an Israeli study found that 24.2% of those receiving a booster developed an exacerbation of a pre-existing autoimmune condition, while colleagues (e.g., neurologists and rheumatologists or students who observed those doctors) have told me that figure has been around 25% for the patients in their practices.

One rheumatologist who spoke out publicly stated 40% of his patients (who, due to his specialty, would primarily be seeing him for autoimmune disorders) were injured and 5% were yet to recover, and then cited a rheumatologic database published in the BMJ showing that 37% of patients had an adverse event, and 4.4% of those vaccinated experienced an exacerbation of a pre-existing autoimmune condition.

Additionally, heart surgeon Dr. Steven Gundry performed a test that utilizes inflammatory markers to predict the risk of an acute coronary syndrome (e.g., a heart attack) in the next five years on 566 patients and found that before vaccination their risk averaged 11%, while afterward, it averaged 25%. These are all massive increases I have never seen with any other pharmaceutical (gardasil and the anthrax vaccines are the only ones that come close).

Some (but not too many) people develop chronic illnesses (e.g., long-term fatigue) after the wildfires. I have also noticed other people's health worsened, but their changes were minor enough that they typically were unrecognized.

A California doctor I spoke to who specialized in treating complex illnesses stated that he saw wildfires predominantly affect patients he described as "being on the edge."

In those patients, the smoke tipped them over the edge as their detoxification and anti-inflammatory pathways got overwhelmed, or to quote my colleague: "It's all susceptibility. If your body has been compensating and you get this big inflammatory trigger, wherever you are going to trigger is whatever the weakest spot is in your body."

The earlier you begin treating the wildfire illness, the less long-lasting the effects will be. Similarly, the sooner you get away from the smoke, the less likely the issues are to become permanent (many patients got better once they left the area).

My colleague believed the 2017 and 2018 wildfires in California were so problematic because they went on forever, so there was enough time to tip patients past their critical threshold.

For younger people, the biggest issues were breathing conditions they were already on their way to developing (asthma and COPD being the most common).

For older patients (those in their 60s, 70s, and 80s), the most significant issues were cognitive issues (e.g., my colleague had numerous patients receiving long-term treatment for their cognition who became significantly worse after the systemic inflammation triggered by the wildfires). Heart attacks and strokes could also occur in those predisposed to them.

**Note:** There is quite a bit of research showing particulate exposure causes cognitive impairment in all ages and accelerates the progression toward Alzheimer's. My colleague informed me that much of this data was gathered in Mexico City when

evaluating nano-particulates that are less than 2.5 microns in size. For those interested to learn more, consider reviewing this study, this study, this study, and this study.

Additionally, many of these symptoms, particularly the pathologic changes I observed in the lungs of these patients, matched what I saw with patients who had COVID-19 and later spike protein vaccine injuries. Recognizing this was immensely helpful throughout the pandemic.

## Why Do Wildfires Make People Sick?

I have seen three different models that explain why the smoke from wildfires makes patients ill.

The Kendrick model — Malcolm Kendrick has made a convincing argument that
heart disease arises from inflammatory or mechanical damage to the protective
lining of the blood vessels (the endothelium). This then requires blood clots to form
to patch that damage, and over time, those clots transform into the atherosclerotic
plaques classically associated with heart disease.

Because of this, he believes factors that damage the endothelium are the primary cause of heart disease and argues for reducing them in parallel to providing factors that protect the endothelium and supports its production of nitric oxide (which dilates the blood vessels, allowing adequate blood supply to the body).

One of the noteworthy things about COVID-19 is that the spike protein excels at creating the vascular damage that Kendrick has long argued causes heart disease and strokes (this subject was discussed further here in relation to what causes Alzheimer's disease).

**Note:** Kendrick's model also considers stress to be a primary contributor to heart disease.

One of the things that is known to increase the risk of heart disease is exposure to particulate matter. Kendrick, in turn, argues that this is due to the particulates damaging the endothelium. The pieces of evidence he collected to support this hypothesis were as follows [the cited quotations are directly from Kendrick's book]:

A study of 378,256 patients in general practices used AI to determine what diseases were the most likely to predict future risk of cardiovascular disease (CVD). It found that the greatest risk factors were COPD (66.3% developed CVD within the next ten years) and atrial fibrillation (67.8%).

Many would assume the COPD risk was due to COPD frequently resulting from smoking (which causes heart disease), but in the case of smoking, only 53.3% of smokers developed CVD within ten years.

Kendrick interpreted this to mean that chronic inflammatory damage to the lung endothelium also damaged the rest of the endothelium in the body, thereby supporting his hypothesis that endothelial damage was the cause of heart disease.

 Coal miners (who repeatedly breathe in coal dust particulates) have a significantly increased risk for heart disease, and depending on how much coal they are exposed to, their risk of dying from it increases by approximately 50 to 100 percent.

This risk likely is from the smaller coal nanoparticles that can enter the bloodstream. This link was further supported by a study titled: "Subchronic inhalation of particulate matter 10 coal dust induces atherosclerosis in the aorta of diabetic and nondiabetic rats."

 The nanoparticles released into the bloodstream from smoking immediately damage the endothelium and triggers blood clots:

"Brief active smoking of one cigarette generated an acute release of EPC [stem cells that replace dead endothelial cells] and MPs

[remnants of dead endothelial cells] of which the latter contained nuclear matter. Together, these results demonstrate acute effects of cigarette smoke on endothelial, platelet and leukocyte function as well as injury to the vascular wall.

Vascular dysfunction induced by smoking is initiated by reduced nitric oxide (NO) bioavailability and further by the increased expression of adhesion molecules and subsequent endothelial dysfunction.

Smoking-induced increased adherence of platelets and macrophages provokes the development of a procoagulant and inflammatory environment."

 This same process appears to occur in individuals who breathe in particulate matter generated from the combustion of fossil fuels:

"There is a proven link between exposure to traffic-derived particulate air pollution and the incidence of platelet-driven cardiovascular diseases.

It is suggested that inhalation of small, nanosized particles increases cardiovascular risk via toxicological and inflammatory processes and translocation of nanoparticles into the bloodstream has been shown in experimental models ... **this study** provides a potential mechanism for the increased thrombotic risk associated with exposure to ambient particulate air pollution."

 This same process also occurs following the combustion of forests. Consider the results of one of the largest studies (published in 2015) evaluating the effects of wildfire illness:

"Smoke exposure was associated with increased rates of ER visits, not just for breathing trouble, but also ischemic heart disease, irregular heart rhythm, heart failure, pulmonary embolism and stroke. The risk was greatest for adults age 65 and older.

The greatest increased relative risk was noted within a day of dense wildfire smoke. During these times, researchers found rates of ER visits among adults 65 and older increased **42 percent** for heart attack and **22 percent** for ischemic heart disease.

Overall, ER visits for all cardiovascular and cerebrovascular causes were elevated across all smoke days, with the greatest increase on dense smoke days and among adults age 65 and older. Respiratory conditions also were increased, as anticipated."

The Klinghardt model — Dietrich Klinghardt is considered by many to be one of the
pioneers in the integrative medical field and has treated many challenging patients
with complex illnesses over the decades. Many of my friends trained under
Klinghardt and his work has greatly influenced the direction of integrative medicine
in the United States.

Klinghardt views chronic illnesses as often resulting from a confluence of factors that need to be addressed (e.g., EMFs, root canals, surgical scars dysregulating the autonomic nervous system, heavy metals, and unresolved generational conflicts in your family — all of which my mentors and I have also observed to be amongst the most common root causes of chronic illness).

Since Klinghardt focuses on heavy metals, he frequently emphasizes treating them before directly treating a chronic infection as he believes infections (e.g., candida) are often compensatory response to a metal overload.

When the wildfires happened, I remember Klinghardt proposing that much of the toxicity we were seeing came from the fact that the trees gradually stored heavy metals in the environment and were expelling them into the environment by being burned. Thus, we were effectively giving a gradual but continual heavy metal exposure to people whose systems were already near their critical threshold (a situation not that different from the vog in Hawaii).

I asked my California colleague if they agreed with Klinghardt's assessment. They did, but acknowledged they did not have patients where they tested heavy metal

levels before and after the fire. They also added that due to all the previous mining in California (e.g., a lot of mercury was used for gold extraction), the trees have a significant heavy metal burden.

Furthermore, they directed me to examine the EPA's own research showing that wildfires disperse mercury in the environment. This is exactly what the science has found, especially during the hottest wildfire and my California colleague noted that the 2017/2018 wildfires were so hot you frequently saw cars that had been melted.

**Note:** My colleague also believed some of the fire's toxicity came from all the human structures (e.g., houses) that burned down and dispersed their contents into the atmosphere. I also suspect many of these buildings were old enough to have had various now-banned building materials like asbestos and lead paint.

 Negative ions and zeta potential — One of my hobbies is digging up old books on medical subjects I have no familiarity with, reading a few pages to see if the author seems knowledgeable, and if they appear to, reading their whole book.

One such book I had that experience with was The Ion Effect, which tells a detailed story about how positive and negative ions in the environment significantly affect you (with approximately 20% of the population being noticeably sensitive to changes in weather from positive ions).

Like Earthing, it was immediately apparent that most of the beneficial effects they attributed to "negative ions" and the harmful ones from "positive ions" matched what I would expect each to do as a result of altering zeta potential (which determines if things in fluids clump together or separate).

More importantly, I was struck by just how much strong evidence existed in so many different fields supporting the value of negative ion exposure. Nonetheless, this discipline has been completely forgotten and is erroneously viewed as being akin to pseudoscience.

**Note:** I wrote a bit more on the subject of positive and negative ions here and will soon publish a more detailed article on that topic.

Many of the beneficial effects attributed to negative ions matched precisely what I would expect from the a zeta potential improvement wherever the negative ions contacted (while the opposite held true for the harmful positive ions).

For example, burns were shown to trigger severe blood sludging throughout the body, and early investigators concluded this sludging was likely why burns created so many complications for patients. In turn, extensive research showed that negative ion therapy was miraculous for burn patients.

**Note:** Blood sludging describes blood cells clumping together and then separating from plasma. This phenomena is a result of an impaired zeta potential (which normally prevents the cells from clumping together) and reduces their movement through the circulation.

Another area where negative ion therapy also benefitted patients was for all sorts of conditions within the lining of the respiratory tract. In each of these, a negative ion treatment appeared to soften and rehydrate the fluid flow to those tissues (something that would result from restoring zeta potential) and thus reduced many of the symptoms within them.

Conversely, I have also found that breathing positive ions (e.g., those produced by ventilation systems while sleeping) often dries out and irritates the respiratory tract.

Although there is a great deal of research on the benefits of negative ion therapy and a few remarkable devices have been developed for using negative ions to treat airway conditions, currently, the only accepted use for negative ions is for air purification systems.

Here the negative ions "work" because they bind to positively charged particulate matter that is suspended in the air, causing it to lose the positive charge that keeps the particle suspended and thus settling it to the ground.

For this reason, along with the fact combustion removes electrons (and thereby the negative charges) from what is burned along with the clinical signs of wildfire smoke inhalation, I have suspected a significant part of the problem with wildfire smoke are the positive ions I think the smoke contains.

**Note:** I am still looking for a study that supports or refutes my hypothesis that wildfire smoke is full of positive ions.

All of the research on blood sludging essentially showed that as zeta potential became more impaired, sludging worsened and obstructed the circulation in larger and larger blood vessels until it was eventually fatal.

This was best shown by observing the course of an untreated malaria infection in monkeys (e.g., through microscopic examination of their blood vessels) and that providing heparin (which, in addition to being an anticoagulant, through its extreme negative charge effectively disperses blood sludging) prevented the monkeys from dying until far later in the infection. Furthermore, this observation was also shown in various other studies (e.g., in burn victims).

What I found fascinating about the progression of blood sludging was that it matched many of the traditional views within homeopathy (relating to Hering's Law of Cure) and those within Chinese medicine. Additionally, Chinese medicine has a classic diagnostic pattern known as blood stasis, which for all practical purposes, mirrors the blood sludging discovered by Western researchers.

**Note:** The models of "blood stasis" and "blood sludging" attribute many adverse changes in the body to obstructed blood flow, whereas I believe in some of those cases the actual cause is **obstruction of a different fluid flow** (e.g., lymphatics), an overlap which occurs due to both circulations being affected by impaired zeta potential.

Both of these systems (Chinese medicine and homeopathy) have observed that diseases tend to enter the body superficially (at the smallest vessels) and then penetrate deeper and deeper into the body as the disease worsens.

As a result, a significant part of their diagnostic model is based upon determining how deep a pathogenic factor has penetrated, and their treatment is based on reversing that process to expel it from the body. In contrast, Western medicine often does the opposite (e.g., by suppressing fevers or rashes).

My overall sense from observing the wildfire illness and COVID-19 is that the diseases initially enter the airway tract (where they create symptoms correlating to fluid stasis) and as it penetrates deeper, enters the lungs, then the smallest blood vessels lining the lungs, and finally the larger vessels of the body.

In turn, you can observe people at each stage of this progression, and individuals who have a chronically impaired zeta potential (e.g., the complex patients with chronic inflammatory conditions my colleague saw) are typically the most vulnerable to wildfire exposure — much in the same way those patients were also the most vulnerable to spike protein injuries (a COVID-19 infection or a vaccine reaction).

**Note:** One of the many side effects of positive ions was that they slowed the movement of the cilia (tiny beating hairlike structures), which the respiratory tract uses to clear particulate matter from it. Tobacco smoke plus positive ions was found to slow their movement by 3 to 10 times, whereas subsequent exposure to negative ions reversed this suppression of the cilia.

This progression from the superficial to the deep vessels (frequently beginning with the lungs) is also identical to what I and others have observed with progressively worsening COVID-19 infections and vaccine injuries.

This, for example, I believe, explains the curious COVID-19 phenomena where patients often have low oxygen readings (which are measured in the smallest blood vessels in the fingers which sludged blood has difficulty reaching) but simultaneously do not clinically appear to be oxygen starved because the blood circulation is preserved in their larger vessels.

# **Treating Wildfire Injuries**

There are a few approaches I and colleagues have observed help with the treatment of wildfire injuries (although leaving the smoke is typically the most important thing to do). The approaches we have found to be helpful are as follows:

- Do treatments that restore the physiologic zeta potential of the body. Additionally, one aspect of restoring zeta potential is drinking deionized water (distilled or reverse osmosis water), and having a sufficient amount of that water seems to be particularly important when addressing wildfire injuries.
- Intravenous Vitamin C (when administered early, it greatly helps with wildfireinduced inflammation).
- Treatments directed at the fluid obstructions within the lungs.
- Treatments directed at treating the underlying chronic inflammation in the patient (i.e., what existed before the wildfire smoke exposure).
- Nebulized Glutathione (discussed below).

**Note:** Quite a few of the treatments which address spike protein injuries also treat wildfire illnesses. Similarly, some have found nebulized glutathione also helps for the spike protein injuries (e.g., Long COVID). Finally, like COVID-19, the earlier these treatments can be initiated, the more they do.

The approaches I strongly suspect could help (but we have never tested) are:

- · Heavy metal chelation (assuming it is applicable to the patient).
- Inhaling negative ions. This is ideally done with one of the medical devices
  developed to treat the respiratory tract, and less ideally done with a good negative
  ion generator (which are hard to find) or going to an area in nature with a large
  amount of negative ions (e.g., a forest with waterfalls and granite [which releases
  negative ions] or by the ocean).

# **Pulmonary Glutathione**

Glutathione, a powerful antioxidant, is one of the primary mechanisms the body uses to protect itself from toxins (e.g., heavy metals and free radicals) and is a commonly used therapeutic within integrative medicine for a variety of illnesses (including vaccine injuries).

One of the things that is not very well appreciated by the medical field is that the lungs depend upon glutathione to protect themselves from damage (along with maintaining the survival of the lung cells), and thus concentrate glutathione at the interface where oxygen in the airway enters the circulation. Likewise, in chronic lung diseases, its presence is diminished:

"Alterations in Glutathione in Lung Injury Studies show that the glutathione in epithelial lining fluid of the lung is altered in response to disease. Epithelial lining fluid in healthy volunteers show glutathione concentrations to be greater than 400  $\mu$ M, placing epithelial lining fluid among the highest reported for any extracellular fluid ...

In cell studies on the toxicity of tobacco smoke, N-acetylcysteine [the precursor for glutathione which is also successfully being used to treat spike protein injuries] substantially increased survival of cultured human bronchial cells during exposure to cigarette smoke condensates. The glutathione in epithelial lining fluid from patients with interstitial pulmonary fibrosis was fourfold lower than in healthy patients.

Patients with interstitial pulmonary fibrosis have been noted to have increased numbers of fibroblasts in their lower respiratory tract. Cantin et all documented suppression of human fetal lung fibroblasts by glutathione and other sulfhydryl-containing compounds.

Bronchoalveolar lavage fluid from patients with interstitial pulmonary fibrosis did not exhibit this inhibition and markedly increased fibroblast proliferation ...

Patients with cystic fibrosis have also been noted to have a lower-than-normal concentration of glutathione in their bronchoalveolar lavage ...

The glutathione concentrations of plasma and epithelial lining fluid were significantly lowered in symptom-free HIV-positive individuals ... In a recent report, the epithelial lining fluid of patients with Adult Respiratory Distress Syndrome [this is the condition that put COVID patients on ventilators] was deficient in total glutathione compared with normal subjects.

Bernard' demonstrated depleted levels of plasma and red cell glutathione in a clinical pilot study in patients with Adult Respiratory Distress Syndrome, and that treatment with N-acetylcysteine greatly increases these concentrations and improved some of the physiologic alterations present."

[Note: This article also discusses how exposure to a lung irritant causes glutathione to at least temporarily increase in the lungs].

One of the most common causes of death in the United States is chronic diseases of the respiratory tract (COPD being the most common). Before COVID-19, it was the 4th most common cause of death in the United States, but since then, strokes (possibly due to the vaccines) and COVID-19 (or things misdiagnosed as COVID-19) have edged it out.

Because of how many people have COPD (e.g., it is a common consequence of smoking), therapies directed at COPD are one of the largest drug markets (the global asthma and COPD market is currently valued at 36.7 billion and expected to reach 60.3 billion by 2032). Unfortunately, they need to be taken indefinitely and don't prevent the inevitable progression and horrible death many experience from the disease.

One of my longtime theories (discussed further here) is that the pharmaceutical industry has an inherent conflict of interest against promoting any therapy that effectively treats a disease, as it destroys the franchise (perfectly demonstrated by this candid admission to investors from Goldman Sachs). In turn, I believe the COPD market is one example of this phenomenon.

Years ago, when I asked a mentor if they had found any reliable treatments for COPD, they told me: "Nebulized glutathione. It does not repair the damage from COPD, but it prevents the progression of the disease."

Hopefully, the reason why it works should be clear from the information provided thus far. When you consider the magnitude of the COPD problem and the research that has been done, it's a bit difficult to believe (until you get used to seeing this pattern over and over again in medicine) that almost no one in the medical field is aware of using nebulized glutathione to treat COPD.

#### **Nebulized Glutathione**

Each time a wildfire breaks out, and patients get ill, a few integrative doctors and naturopaths in the area promote using nebulized glutathione as a treatment (nebulization is the best way to get glutathione to where it is needed).

My colleague, for example, who utilized it for the 2017/2018 wildfires, told me it worked, especially when given early in the disease process. They also noted that many of their patients who were injured by the wildfire injuries were also patients they knew had previously had borderline or iffy glutathione levels (e.g., due to another issue preventing glutathione production).

Additionally my colleague also warned me that in a specific subset of patients (due to existing sulfur sensitivities), prostaglandins are released by nebulized glutathione, which can trigger asthma or other lung conditions in susceptible individuals (my colleague in turn has many very sensitive patients in their practice). For this reason, even though this procedure can be done at home, they advised doing the first administration in the office to monitor for this.

**Note:** Another colleague in the Midwest has also found glutathione works for wildfire illnesses, but due to his location, like me, he does not see anywhere near as many of these patients (similarly, we occasionally see someone who developed the 9/11 illness or complications from vog). Since we have less experience with the wildfire issue, I

would like to share this comment from a California doctor (I verified) who utilized nebulized glutathione:



marc kerner 16 hr ago

I commend you for such a well written and informative article. I have extensive experience being in Southern California with wildfire exposures and patients who sustained upper airway injuries from the gas leak in the San Fernando Valley. These are devastating injuries to many people. We used inhaled glutathione regularly and it was clearly beneficial. We also found that alkaline water with fulvic acid supplementation was helpful. This has shown to chelate minerals and provide support to the microbiome as well which is affected by these exposures. Once again, great article

□ LIKE (3) □ REPLY (1) \*\*\*

Lastly, in the original version of this article (this is a shortened one), for those interested, I also discussed a few other topics near the end of it, those being:

- How nebulized glutathione helps with fluoroquinolone toxicity (another common but difficult to treat pharmaceutical injury)
- The dosing my colleagues used for nebulized glutathione and where they sourced it from.
- Where nebulized glutathione (that as far as I know is both safe and effective) can be directly purchased online without needing a prescription.
- Other options for dealing with the vascular damage to the lungs.

I hope this article was helpful for you, especially if you live in New York right now. I would also like to sincerely thank Robert Malone, Pierre Kory, Joseph Mercola, and Steve Kirsch for helping to bring awareness to this story on Twitter over the weekend, Kory for also doing so on his Substack and Dr. Mercola for doing so here. If you know anyone this information could help, please consider getting it to them.

### A Note From Dr. Mercola About the Author

A Midwestern Doctor (AMD) is a board-certified physician in the Midwest and a longtime reader of Mercola.com. I appreciate his exceptional insight on a wide range of topics and I'm grateful to share them. I also respect his desire to remain anonymous as he is

still on the front lines treating patients. To find more of AMD's work, be sure to check out The Forgotten Side of Medicine on Substack.