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How COVID Vaccines Can Cause Blood Clots and More

Analysis by Dr. Joseph Mercola ✔ Fact Checked

STORY AT-A-GLANCE -

- Doctors for COVID Ethics have been warning about the potential for gene-based COVID-19 “vaccines” to cause blood clots, cerebral vein thrombosis and sudden death
- SARS-CoV-2 spike protein binds to the ACE2 receptor on platelets. The subsequent activation of the platelets can lead to disseminated intravascular coagulation (DIC), i.e., a pathological overstimulation of your coagulation system resulting in abnormal blood clotting, thrombocytopenia (low platelet count) and hemorrhaging
- Research shows deaths are 14.6 times more frequent during the first 14 days after the first COVID injection among people over the age of 60, compared to those who aren't vaccinated. Other data also show that after COVID-19 vaccines were implemented, overall death rates have, with few exceptions, increased
- A key problem with all of these gene-based COVID-19 vaccines is that the spike protein itself appears toxic, and your body is now a spike protein-producing factory
- Its inherent toxicity may be due to it being a prion protein. If so, we can expect these injections to cause all manner of prion diseases, such as Alzheimer’s, Parkinson’s and Lou Gehrig's disease (ALS)

February 28, 2021, Dr. Sucharit Bhakdi, a retired professor, microbiologist and infectious disease and immunology specialist, along with several other doctors and scientists who have formed Doctors for COVID Ethics, sent a letter[1] to the European Medicines Agency (EMA), warning about the potential for gene-based COVID-19 “vaccines” to cause blood clots, cerebral vein thrombosis and sudden death.

The signees listed several questions in need of urgent answers, including evidence that gene-based vaccines will not enter the bloodstream and disseminate throughout the body, or that the vaccines will not remain entrapped in circulation and taken up by endothelial cells.

They warned that, barring such evidence, "it must be expected that during expression of the vaccines' nucleic acids, peptides derived from the spike protein will be presented via the MHC I – pathway at the luminal surface of the cells," and that many healthy individuals have CD8-lymphocytes that recognize these kinds of peptides — either due to previous COVID-19 infection, or cross-reaction with other coronaviruses responsible for the common cold.

"We must assume that these lymphocytes will mount an attack on the respective cells," they noted, unless there's evidence to exclude this probability.

If lymphocytes do mount an attack on cells, "it must be expected that endothelial damage with subsequent triggering of blood coagulation via platelet activation will ensue," they warned, adding that reduced platelet count and the appearance of D-dimers in the blood is also to be expected, as are "myriad ischemic lesions throughout the body including in the brain, spinal cord and heart," followed by "profuse bleedings and hemorrhagic stroke."

Post-Vaccination Thrombocytopenia

Bhakdi and colleagues cite research showing the SARS-CoV-2 spike protein binds to the ACE2 receptor on platelets. The subsequent activation of the platelets can lead to disseminated intravascular coagulation (DIC), i.e., a pathological overstimulation of your coagulation system that can result in abnormal, and life threatening, blood clotting, as well as thrombocytopenia (low platelet count) and hemorrhaging.

Platelets are specialized cells that stop bleeding. As Bhakdi explains, you basically end up with so many blood clots throughout your vascular system that your coagulation system is exhausted, resulting in bleeding (hemorrhaging). Interestingly,

thrombocytopenia — low platelet count —has been reported in severe COVID-19 cases and vaccinated individuals alike, suggesting the spike protein may be a causative agent.

The signees also demand evidence that "an actual emergency existed at the time of the EMA granting Conditional Marketing Authorization to the manufacturers of all three vaccines, to justify their approval for use in humans," seeing how most hospitals, in most countries, were no longer at capacity when the authorizations were issued.

> *"There are serious concerns, including but not confined to those outlined above, that the approval of the COVID-19 vaccines by the EMA was premature and reckless, and that the administration of the vaccines constituted and still does constitute 'human experimentation,' which was and still is in violation of the Nuremberg Code,"* the letter states.[2]

Vaccine Risks Clearly Outweigh Any Potential Benefit

Since that February 28, 2021, letter to the EMA, 15 European countries have suspended use of the AstraZeneca DNA vector-based vaccine due to clotting disorders.[3]

The U.S. temporarily suspended the **Johnson & Johnson vaccine**, another DNA vector vaccine, for the same reason.[4,5] As of mid-May 2021, the U.S. Centers for Disease Control and Prevention had identified 28 cases of serious blood clots among the 8.7 million Americans who had received the Johnson & Johnson vaccine.[6]

While the CDC admitted there's evidence to suggest a plausible causal association, the pause was lifted April 23, 2021.[7] However, as Bhakdi explains, the **mRNA vaccines** (Moderna and Pfizer) are just as dangerous and can cause the same problems, as the key causative agent appears to be the spike protein.

The EMA held a press conference March 17, 2021, at which they assured the European population that no definitive link could be found between the COVID-19 vaccines and these rare coagulation disorders. They also stated that the World Health Organization "considers that the benefits of the AstraZeneca vaccine outweigh its risks and recommends that vaccinations continue."

However, as stated in a follow-up letter to the EMA, Bhakdi and his colleagues point out that "The WHO is not a competent body for formally evaluating drug safety. That is explicitly the role of the [EMA]."

In the interview, Bhakdi notes that in Germany, a total of 52 people without preexisting disease died as a direct result of COVID-19 infection during the first six months of the pandemic.

Extrapolating from the EMA's own statistics on vaccine-related deaths (which is likely to be an undercount), vaccinating 60 million Germans under the age of 60 would result in the death of 54 people from these two rare blood disorders alone[8] (DIC and cerebral venous thrombosis, i.e., blood clots in the brain resulting in bleeding).

"So, how in God's name can the benefits outweigh the risks?" Bhakdi says. Indeed, it's important to realize that the **COVID-19 vaccines** do not confer immunity. You can still contract the infection and spread it to others.

All the vaccines may do is reduce your symptoms, if and when you get infected. Also remember that, unless you are elderly and have more than two underlying chronic conditions, your risk of death from COVID-19 is on par with seasonal influenza.[9,10,11,12,13]

As explained by Bhakdi, the first symptom of a blood clot in your brain is a splitting headache, followed by nausea, vomiting, dizziness, alterations of consciousness, reduced hearing, blurred vision, paralysis and uncontrollable body spasms, just to name a few. Early emergency medical treatment is essential for survival.

Vast numbers of people complain of one or several of these symptoms after getting a COVID-19 shot, and not just the **AstraZeneca vaccine**, and this does not bode well for safety.

How COVID Vaccines Deregulate Your Vascular Function

In the video above, Bhakdi explains the science behind the blood disorders seen post-vaccination with gene-based COVID-19 "vaccines," and why, in the long term, these

injections may be causing dangerously overactive immune function in hundreds of millions if not billions of people.

He believes the mRNA or DNA in the vaccines are being taken up by the endothelial cells that line your blood vessels. These cells then start producing the SARS-CoV-2 spike protein in the blood vessel wall.

> *"This is a disastrous situation,"* Bhakdi says, *"because the spike protein itself is now sitting on the surface of the cells, facing the bloodstream. It is known that these spike proteins, the moment they touch platelets, they active them [the platelets], and that sets the whole clotting system going.*
>
> *The second thing that should happen, according to theory, is that the waste products of this protein that are produced in the cell, are put in front of the 'door' of the cell … and is presented to the immune system.*
>
> *The immune system, especially the lymphocytes, recognize these and will attack the cells, because they don't want them to make viruses or viral parts. And the viral parts are now being made in locations where viral parts would never, ever reach [naturally], like the vessel wall in your brain …*
>
> *If that 'tapestry' of the wall [i.e., the lining of the blood vessel] is then destroyed, then that is the signal for the clotting system to [activate], and create a blood clot. And this happens with all of these vaccines because the gene [the instruction to make spike protein] is being introduced to the vessel wall."*

The fact that blood clots can occur anywhere in the body is evident from reports. For example, a 43-year-old healthy man lost a large portion of his small intestine after developing a blood clot following the AstraZeneca vaccine.[14] His symptoms included headache, nausea, fever and vomiting.

A 62-year-old woman suffered blood clots in her lungs a week after the Johnson & Johnson vaccine.[15] The same fate hit an 18-year-old nursing student three weeks after getting the AstraZeneca jab.[16]

Clear Correlation Between Vaccine and Increased Death Rate

Five months into the vaccination campaign, statistics tell a frightening story. For example, one recent investigation[17] shows deaths are 14.6 times more frequent during the first 14 days after the first COVID injection among people over the age of 60, compared to those who aren't vaccinated.

Another study,[18] reviewed in the video above, shows that after COVID-19 vaccines were implemented, overall death rates, with few exceptions, temporarily increased after they had been dropping in virtually every country.

Interestingly, I recently interviewed **Stephanie Seneff**, Ph.D., about a paper in which she details some of the harmful mechanics of COVID-19 vaccines, and she noted that countries in which COVID-19 vaccines have not raised mortality rates are also not using **glyphosate**. This, she believes, may be a central part of the equation, as glyphosate causes a lot of biological damage and lowers your immune function.

April 23, 2021, molecular biologist and toxicologist Janci Chunn Lindsay, Ph.D., provided a public comment during a U.S. Centers for Disease Control and Prevention Advisory Committee on Immunization Practices (ACIP) meeting, in which she noted that:[19]

> *"We have enough evidence now to see a clear correlation with increased COVID deaths and the vaccine campaigns. This is not a coincidence. It is an unfortunate unintended effect of the vaccines.*
>
> *We simply must not turn a blind eye and pretend this is not occurring. We must halt all COVID vaccine administration immediately, before we create a true pandemic that we cannot reign in."*

Other Theories

Another hypothesis has been presented by professor Andreas Greinacher, a German expert on blood. Greinacher and his team at the University of Greifswald believe viral vector vaccines — AstraZeneca and Johnson & Johnson — may be causing an immune

response resulting in blood clots due to the presence of human-derived proteins and/or the preservative used in the AstraZeneca vaccine. As reported by The Wall Street Journal:[20]

> *"Prof. Greinacher and his team has … identified more than 1,000 proteins in AstraZeneca's vaccine derived from human cells, as well as a preservative known as ethylenediaminetetraacetic acid, or EDTA.*
>
> *Their hypothesis is that EDTA, which is common to drugs and other products, helps those proteins stray into the bloodstream, where they bind to a blood component called platelet factor 4, or PF4, forming complexes that activate the production of antibodies.*
>
> *The inflammation caused by the vaccines, combined with the PF4 complexes, could trick the immune system into believing the body had been infected by bacteria, triggering an archaic defense mechanism that then runs out of control and causes clotting and bleeding …*
>
> *The type of clotting observed is known as vaccine-induced immune thrombotic thrombocytopenia, or VITT. Peer-reviewed studies by Prof. Greinacher's group, as well as from teams at the University of Oslo and University College London have independently confirmed its existence."*

Other scientists hypothesize that the adenoviruses used in the DNA vector shots might play a role, as they too have been linked to blood clotting, while a theory suggested by professor Eric van Gorp in The Netherlands is that the intense flu-like symptoms induced by the shots contribute to inflammation that can trigger or exacerbate an autoimmune reaction that in turn results in blood clotting.[21]

Toxicity of Spike Protein Is a Major Issue

As noted in my interview with Seneff, a key problem with all of these gene-based COVID-19 vaccines is that the spike protein itself appears toxic, and your body is now a spike protein-producing factory.

> *"They have done studies where they only expose the [animal] to the spike protein, showing it was toxic in the brain and the blood vessels,"* Seneff said, *"So, it's causing immune reactions all by itself that is damaging to the tissues."*

Its inherent toxicity may be due to it being a prion protein. While this has yet to be conclusively determined, there are signs to suggest the SARS-CoV-2 spike protein acts as a prion. If so, we can expect these injections to cause all manner of prion diseases, such as Alzheimer's, Parkinson's and Lou Gehrig's disease (ALS).

> **"COVID-19 vaccines are instruction sets for your body to make a toxic protein that will eventually wind up concentrated in your spleen, from where prion-like protein instructions will be sent out, leading to neurodegenerative diseases."**

Disturbingly, the spike protein produced by COVID-19 vaccines — due to the modifications made to the synthetic mRNA that delivers the instructions to the cell for what protein to make — may make it more of a prion than the spike protein in the actual virus, and a more effective one.

To summarize a take-home message from that interview, COVID-19 vaccines are instruction sets for your body to make a toxic protein that will eventually wind up concentrated in your spleen, from where prion-like protein instructions will be sent out, leading to neurodegenerative diseases.

Vaccine Remedy May Be Worse Than the Disease

In her recently published paper, Seneff explains how and why the spike protein acts as a metabolic poison. While I recommend reading Seneff's paper in its entirety, I've extracted key sections below, starting with how the spike protein can trigger pathological damage leading to lung damage and heart and brain diseases:[22]

“The picture is now emerging that SARS-CoV-2 has serious effects on the vasculature in multiple organs, including the brain vasculature … In a series of papers, Yuichiro Suzuki in collaboration with other authors presented a strong argument that the spike protein by itself can cause a signaling response in the vasculature with potentially widespread consequences.

These authors observed that, in severe cases of COVID-19, SARS-CoV-2 causes significant morphological changes to the pulmonary vasculature … Furthermore, they showed that exposure of cultured human pulmonary artery smooth muscle cells to the SARS-CoV-2 spike protein S1 subunit was sufficient to promote cell signaling without the rest of the virus components.

Follow-on papers showed that the spike protein S1 subunit suppresses ACE2, causing a condition resembling pulmonary arterial hypertension (PAH), a severe lung disease with very high mortality … The ‘in vivo studies’ they referred to … had shown that SARS coronavirus-induced lung injury was primarily due to inhibition of ACE2 by the SARS-CoV-2 spike protein, causing a large increase in angiotensin-II.

Suzuki et al. (2021) went on to demonstrate experimentally that the S1 component of the SARS-CoV-2 virus, at a low concentration … activated the MEK/ERK/MAPK signaling pathway to promote cell growth. They speculated that these effects would not be restricted to the lung vasculature.

The signaling cascade triggered in the heart vasculature would cause coronary artery disease, and activation in the brain could lead to stroke. Systemic hypertension would also be predicted. They hypothesized that this ability of the spike protein to promote pulmonary arterial hypertension could predispose patients who recover from SARS-CoV-2 to later develop right ventricular heart failure.

Furthermore, they suggested that a similar effect could happen in response to the mRNA vaccines, and they warned of potential long-term consequences to

both children and adults who received COVID-19 vaccines based on the spike protein.

An interesting study by Lei et. al. (2021) found that pseudovirus — spheres decorated with the SARS-CoV-2 S1 protein but lacking any viral DNA in their core — caused inflammation and damage in both the arteries and lungs of mice exposed intratracheally.

They then exposed healthy human endothelial cells to the same pseudovirus particles. Binding of these particles to endothelial ACE2 receptors led to mitochondrial damage and fragmentation in those endothelial cells, leading to the characteristic pathological changes in the associated tissue.

This study makes it clear that spike protein alone, unassociated with the rest of the viral genome, is sufficient to cause the endothelial damage associated with COVID-19. The implications for vaccines intended to cause cells to manufacture the spike protein are clear and are an obvious cause for concern."

Long-Term Neurological Damage Is To Be Expected

Seneff also describes key characteristics of the SARS-CoV-2 spike protein that suggests it's a prion. As such, the spike protein may induce serious neurological damage resulting in conditions such as such as Alzheimer's, Parkinson's and Lou Gehrig's disease (ALS), just to name a few. She writes:[23]

"Neurological symptoms associated with COVID-19, such as headache, nausea and dizziness, encephalitis and fatal brain blood clots are all indicators of damaging viral effects on the brain. Buzhdygan et al. (2020) proposed that primary human brain microvascular endothelial cells could cause these symptoms …

In an in vitro study of the blood-brain barrier, the S1 component of the spike protein promoted loss of barrier integrity, suggesting that the spike protein

acting alone triggers a pro-inflammatory response in brain endothelial cells, which could explain the neurological consequences of the disease.

The implications of this observation are disturbing because the mRNA vaccines induce synthesis of the spike protein, which could theoretically act in a similar way to harm the brain. The spike protein generated endogenously by the vaccine could also negatively impact the male testes, as the ACE2 receptor is highly expressed in Leydig cells in the testes …

Prion diseases are a collection of neurodegenerative diseases that are induced through the misfolding of important bodily proteins, which form toxic oligomers that eventually precipitate out as fibrils causing widespread damage to neurons …

Furthermore, researchers have identified a signature motif linked to susceptibility to misfolding into toxic oligomers, called the glycine zipper motif … Prion proteins become toxic when the α-helices misfold as β-sheets, and the protein is then impaired in its ability to enter the membrane.

Glycines within the glycine zipper transmembrane motifs in the amyloid-β precursor protein (APP) play a central role in the misfolding of amyloid-β linked to Alzheimer's disease. APP contains a total of four GxxxG motifs. When considering that the SARS-CoV-2 spike protein is a transmembrane protein, and that it contains five GxxxG motifs in its sequence,[24] it becomes extremely plausible that it could behave as a prion.

One of the GxxxG sequences is present within its membrane fusion domain. Recall that the mRNA vaccines are designed with an altered sequence that replaces two adjacent amino acids in the fusion domain with a pair of prolines.

This is done intentionally in order to force the protein to remain in its open state and make it harder for it to fuse with the membrane. This seems to us like a dangerous step towards misfolding potentially leading to prion disease …

A paper published by J. Bart Classen (2021) proposed that the spike protein in the mRNA vaccines could cause prion-like diseases, in part through its ability to bind to many known proteins and induce their misfolding into potential prions.

Idrees and Kumar (2021) have proposed that the spike protein's S1 component is prone to act as a functional amyloid and form toxic aggregates … and can ultimately lead to neurodegeneration."

Clear Crimes Against Humanity

Circling back to where we started, March 23, 2021, the EMA issued a reply[25] to the Doctors for COVID Ethics. In it, they conceded that the gene-based "vaccines" do enter the bloodstream, but they could provide no quantitative data. This lack of data effectively nullifies the remainder of their scientific assessment, which Doctors for COVID Ethics described as "unconvincing and unacceptable."

The following week, April 1, 2021, Doctors for COVID Ethics sent a follow-up letter and rebuttal[26] to the EMA, expressing their dissatisfaction with the EMA's responses:[27]

"We are dismayed that you chose to respond to our request for crucially important information in a dismissive and unscientific manner. Such a cavalier approach to vaccine safety creates the unwelcome impression that the EMA is serving the interests of the very pharmaceutical companies whose products it is you pledged duty to evaluate.

The evidence is clear that there are some serious adverse event risks and that a number of people not at risk from SARS-CoV-2 have died following vaccination …

For the avoidance of doubt, if your regulatory body does not immediately suspend its 'emergency' recommendation of potentially dangerous inadequately tested gene-based 'vaccines,' while the matters which we have highlighted to you are properly investigated, we hereby put the EMA on notice of

being complicit in medical experimentation, in violation of the Nuremberg Code, which thereby constituted the commission of crimes against humanity."

Sources and References

- [1, 2] Letter to EMA by Professor Sucharit Bhakdi and Colleagues February 28, 2021
- [3] Birmingham Mail March 15, 2021
- [4] The BMJ 2021;373:n970
- [5, 6, 7] NBC News May 12, 2021
- [8, 26, 27] Doctors4covidethics.medium.com Rebuttal Letter to EMA April 1, 2021
- [9] The Mercury News May 20, 2020 (Archived)
- [10] Annals of Internal Medicine September 2, 2020 DOI: 10.7326/M20-5352
- [11] Breitbart May 7, 2020
- [12] Scott Atlas US Senate Testimony May 6, 2020 (PDF)
- [13] John Ioannidis US Senate Testimony May 6, 2020 (PDF)
- [14] MSM May 17, 2021
- [15] NJ.com May 15, 2021 (Archived)
- [16] MSN May 17, 2021
- [17] Americas Frontline Doctors May 9, 2021
- [18] Covid19.healthdata.org
- [19] Jennifer Margulis, Halt COVID Vaccine, Prominent Scientist Tells CDC
- [20, 21] Wall Street Journal May 13, 2021 (Archived)
- [22, 23] International Journal of Vaccine Theory, Practice and Research May 10, 2021; 2(1): 402-444
- [24] UniProtKB P0DTC2 (Spike SARS2)
- [25] Doctors4covidethics.medium.com Reply from the EMA March 23, 2021