

Healthy Skeptics Newsletter

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Sorry this is late. It seems every day, new and important research is published regarding new variants, the effectiveness of each vaccine, the adverse side effects of vaccines vs COVID disease, government and corporate mandates, the evolving pathophysiology of the virus and the ever-deepening rift between pro and anti-vaxers, which is fraught with wild conspiracy theories, outright lies and a loss of confidence in public health institutions that will plague this nation for decades. The title of this month's newsletter is:

"How to get attacked by both sides for pointing out the middle ground."

It's getting weird out there. Not just on social media, where rational and respectful discourse has almost disappeared. It's getting weird on airplanes, the post office and grocery stores, as mask wearing and vaccination have become issues that produce angry and sometimes violent confrontations.

I'd like to present a middle ground, using verifiable science, that might come in handy when these issues arise with your family, friends, and neighbors. I'll start with my bonafides on both sides of the fence. I taught clinical nutrition at UCLA and directed the nation's first FDA-licensed clinical lab specializing in nutrition and immunology. At the same time, I was deep into research on a variety of natural health issues, wrote books on complimentary medicine that sold more than a million copies, and helped to create the world's largest medicinal plant library. I've formulated and promoted hundreds of nutritional supplements and testified in front of Congressional committees and the FTC to defend your right to use them.

So I'm not saying, "trust me; I'm a biochemist," but rather "here's some information that you might find useful." I answer questions all day from FaceBook friends, colleagues and members of my organization called The Healthy Skeptics. Below are my replies to the most common

questions received this month. But first, let me make a few statements, all of which are explained and supported in the following pages.

In my view:

1. Masks reduce the transmission of disease
2. COVID-19 vaccines are safe and effective
3. I am against vaccine mandates, and
4. People who choose not to vaccinate should respect the choices made by others by wearing a mask and social distancing.
5. The lack of education regarding known ways to strengthen one's immunity is appalling
6. We do not yet know whether Ivermectin prevents or effectively treats COVID-19 infection. The definitive study is now underway in the UK, at Oxford University in an enormous series of clinical trials called the principle study. Link: <https://www.principletrial.org/>

AMA (Ask Me Anything)

Q: Which confers better protection: natural immunity or vaccination?

A. The answer is not as easy to determine as you might think, since there is data to support both options. The critical question is “over what period of time?” Also, the question should not even be discussed without acknowledging the importance of diet, exercise, sleep, and known preventive strategies including maintaining optimum levels of vitamin D, zinc, vitamin C and DHEA.

Q: Is there a test that can tell me if I am protected?

A: We hear every day that this is a “pandemic of the unvaccinated,” when in fact, there are not two but four populations to consider. People exposed to the SARS-CoV-2 virus, survivors of COVID-19 disease, people vaccinated with a single dose of an mRNA vaccine and those fully vaccinated with two injections. All of these groups will have some level of protection, and the task at hand is to develop a test that measures one's anti-SARS-CoV-2 immune status.

Look at the massive amount of money poured into vaccine development and distribution. That was necessary, and it created safe and effective vaccines. But there should have been – from the start – an equal effort to

develop a test to measure one's immune competence against the SARS-CoV-2 virus. Without that information, decisions regarding shut-downs, mandates and other restrictions are being based on pure conjecture. Developing a test for immune competence will not be easy – as I will explain – but it is a critical requirement for ultimately ending this pandemic.

Immunity 101

We know antibody levels are probably less than half of the immune response to a virus. We can measure antibodies produced by the vaccine and by natural infection. There are even advanced tests that can distinguish between antibodies derived from different exposures. But we need a more comprehensive view that looks at the interplay of antibodies and T-cell immunity. This is a daunting task, because – at present - it involves expensive and time-consuming procedures. First, you have to isolate the SARS-CoV-2 proteins, then isolate the patient's T-cells. Then incubate the T cells with the viral proteins to evaluate the kill rate. A commercially available test will require the development of biomarkers that reflect this process.

Stay with me here. Because the *whole picture* requires not just technology, but enough time to measure immune memory. When our immune system encounters a pathogen, B-cells produce antibodies. As T-cells join the fight and the immune response begins to prevail, a specialized antibody is produced called immunoglobulin G (IgG). IgG continues to circulate in the bloodstream for months or even years. Memory B-cells and Memory T-cells are also produced, which take up residence in lymph nodes, spleen and bone marrow. This amazing coordination of cells and tissues sometimes produces life-long immunity, such as we now have with measles. But we do not yet have a clear understanding of the long-term immune response to SARS-CoV-2. Other coronaviruses that produce the common cold certainly stimulate an immune response, but only about a year of memory.

My best guess for SARS-CoV-2 is that the combination of vaccine plus natural infection will result in something called *functional immunity*, in

which IgG, B and T-cell memory may not prevent reinfection but will defeat it quickly.

Q: Wait, what? Vaccine PLUS natural infection?

A: Yes, I'm saying that the most likely scenario right now is that we will all at some time be infected by the SARS-CoV-2 virus. Those who maintain peak immunity with optimal nutrition, regular exercise and one or more vaccine shots will have a mild flu-like experience. Monoclonal antibodies like Lilly's IV infusion or Regeneron's IM shot will be reserved for the elderly and other high-risk individuals. More research on natural products and programs will be published, and of course, the drug companies are feverishly (forgive the pun) working on new anti-viral drugs.

Q: You said "ONE or more vaccine shots." Is one mRNA shot an option?

A: Everyone wants to promote full vaccination, so you won't find any mention of single mRNA shot efficacy anywhere in the news. But shouldn't that be part of the discussion, especially for the large number of people who are on the fence? Well here it is, from an excellent meta-analysis published by Public Health England. One dose of the Pfizer/BioNTech vaccine reduced COVID-19 symptoms by 55 to 70%, reduced hospitalizations by 75 to 85%, and deaths by 70 to 85%. Of course we'd love to know how many infections were *prevented*, but that's always a best-guess estimate. The data from this analysis suggests that one shot reduced infections by 55 to 70% - still quite valuable.

REF:

[https://ASSETS.PUBLISHING.SERVICE.GOV.UK/GOVERNMENT/UPLOADS/SYSTEM/UPLOADS/ATTACHMENT_DATA/FILE/1000512/vaccine_surveillance_report - week 27.PDF](https://ASSETS.PUBLISHING.SERVICE.GOV.UK/GOVERNMENT/UPLOADS/SYSTEM/UPLOADS/ATTACHMENT_DATA/FILE/1000512/vaccine_surveillance_report_-_week_27.PDF)

Q: Should COVID survivors get both shots?

A: The data clearly shows that for people who have recovered from COVID-19 infection, there is very little benefit from the second dose of a mRNA vaccine. Medical decisions are properly made by looking at the risks and potential rewards. In this case, we pretty much know that

COVID survivor's reward from a second shot is negligible. Thus the risk/reward picture favors a single mRNA shot for COVID-19 survivors.

REFS

1. Infectious Diseases. August 6, 2021. SARS-CoV-2 Antibody Responses in Infection-Naive or Previously Infected Individuals After 1 and 2 Doses of the BNT162b2 Vaccine. Mark Anderson, Michael Stec, et al.

JAMA Netw Open. 2021;4(8):e2119741.

doi:10.1001/jamanetworkopen.2021.19741

2. Manisty C, Otter AD, Treibel TA, et al. Antibody response to first BNT162b2 dose in previously SARS-CoV-2-infected individuals. Lancet. 2021;397(10279):1057-1058.

doi:10.1016/S0140-6736(21)00501-3.

3. Prendecki M, Clarke C, Brown J, et al. Effect of previous SARS-CoV-2 infection on humoral and T-cell responses to single-dose BNT162b2 vaccine. Lancet. 2021;397(10280):1178-1181.

doi:10.1016/S0140-6736(21)00502-

4. Bradley T, Grundberg E, Selvarangan R, et al. Antibody responses after a single dose of SARS-CoV-2 mRNA vaccine. N Engl J Med. 2021;384(20):1959-1961.

doi:10.1056/NEJMc2102051

Q: Is there really a “Delta Surge” in hospitalizations and deaths?

A. Yes. 80% of ICU beds in the country are in use, with over 30% occupied by Covid-19 patients. Source: US Department of Health and Human Services. In the past week, the US has averaged around 2,200 Covid-19 deaths a day, the highest average since early March.

For more information, contact your state Health Department to find out what's happening in your state. Alaska, Montana, Idaho, Texas, Florida, Alabama and Ohio are the latest states reeling under the deluge of COVID patients. Here's the statement from the Director of Idaho's Department of Health.

“Crisis standards of care is a last resort. It means we have exhausted our resources to the point that our healthcare systems are unable to

provide the treatment and care we expect. This is a decision I was fervently hoping to avoid. The best tools we have to turn this around is for more people to get vaccinated and to wear masks indoors and in outdoor crowded public places. Please choose to get vaccinated as soon as possible – it is your very best protection against being hospitalized from COVID-19.”

Idaho has the lowest vaccination rate of any state in the nation. These two things are connected. What we are seeing unfold right before our eyes is a kind of social psychosis, where our strongly held belief systems are causing behavior that is clearly not in our best interest. Kentucky has called up their National Guard to help staff overwhelmed hospitals. The neighboring state of Tennessee has recorded more than 15,000 COVID deaths, and hospitalizations are increasing. In Davidson County alone, that includes Nashville, more than 750 people are hospitalized with COVID-19 infections, and the county has reported more than 1,200 deaths. Source:
<https://www.tn.gov/health/cedep/ncov.html>

In the face of these verifiable numbers posted by local, non-partisan health departments, a prominent anti-vax group is having a three day indoor conference – in Nashville - starting October 22. In advertisements for the event, they proudly state:
“At **TTAC [LIVE] 2021** we will have **NO** masks, **NO** social distancing, and **NO** vaccination requirements.”

Q: But even states with high vaccination rates are seeing a surge in cases and hospitalizations. Doesn't that mean the vaccines don't really work as promised?

A. Two-part answer:

1: Even within the same state, stark regional differences follow the same pattern as we see between different states. Areas with the lowest vaccination rates have the highest number of hospitalizations and deaths. In the state of Washington, where I live and carefully follow the numbers, hospitalizations in the densely populated (but highly vaccinated) western part of the state are declining, whereas along the border with Idaho and eastern Oregon (with low vaccination rates)

COVID-19 hospitalizations are at an all-time high. Source:
<https://www.doh.wa.gov/Emergencies/COVID19/DataDashboard>

2: No one said that the vaccines would make you immune to COVID-19. The claim was never *eradication*. It was *control*. That is done with vaccines, masks, social distancing and self care.

Q: When will we reach herd immunity?

A: I've stated for 18 months that herd immunity was an impossible goal. Most immunologists are finally agreeing, and it's not because of vaccine holdouts. It's because vaccines very rarely produce herd immunity. Vaccines are intended to protect the vulnerable. The list is well-researched.

* People over 70

* The overweight and obese

* People with comorbidities:

A. Any history of lung disease, including asthma, bronchitis, emphysema, COPD, pulmonary hypertension, or pneumonia

B. Any history of heart disease, including coronary artery disease (CAD), congestive heart failure, cardiomyopathy, arrhythmia, or heart valve disease.

C. Diabetes

D. Any inflammatory or autoimmune disease being treated with immune-suppressing drugs

* NOTE: Early reports last year suggested people with A-type blood were more susceptible to COVID, while those with O-type blood were less so. But a review of nearly 108,000 patients in a three-state health network has found no link between blood type and COVID risk.

Q: So, if I am not in any of these vulnerable groups, why should I be vaccinated?

A. Because this virus is mysterious. While it is statistically rare, young, healthy people do end up in the hospital. And it is impossible to identify what (if anything) they were doing "wrong." Perhaps they were low in Vitamin D, or an immune regulating hormone known as DHEA. Maybe they had poor sleep or a less than perfect diet. Point is that we'll never be able to tweeze out that kind of data because unfortunately, no one is

looking at these factors. But we do know that vaccinated people fare better when infected, and that goes for all age groups, even elderly nursing home residents.

REF:

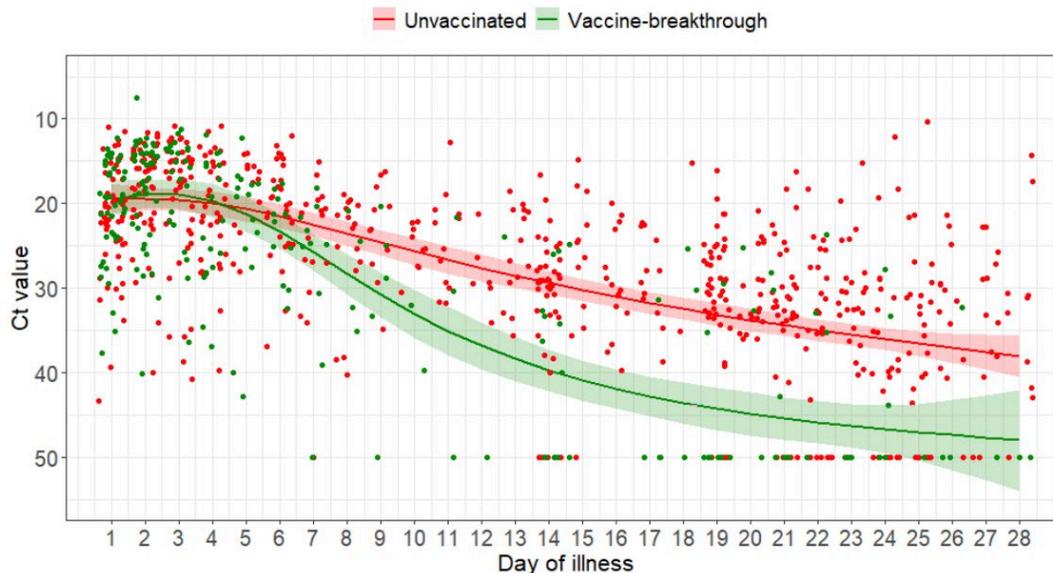
Investigation of an Outbreak of COVID-19 in a French Nursing Home With Most Residents Vaccinated.

Catherine Burugorri-Pierre, et al.

JAMA Netw Open. 2021;4(9):e2125294.

doi:10.1001/jamanetworkopen.2021.25294

Q: How are vaccinated people handling the Delta variant? A: An excellent study out of Singapore shows that, upon admission to hospital both vaccinated and unvaccinated individuals had similar virus levels as measured by real time PCR. But look how quickly these numbers decline in the vaccinated group, resulting in fewer days of illness.



Source:

<https://medrxiv.org/content/10.1101/2021.07.28.21261295v1.full.pdf>

NOTE: This chart also illustrates how vaccines work. They do not work at mucosal exposure, but rally the immune system later on. So the question is, are there ways to reduce infection rates at mucosal exposure? Yes.

1. Masks
2. Social distancing
3. Maintaining optimal levels of DHEA. In a human clinical trial, higher levels of DHEA were strongly associated with mucosal immunity in both males and females. REF: Am J Hum Biol . 2017 Sep 10;29(5). Adrenal maturation, nutritional status, and mucosal immunity in Bolivian youth. Carolyn R Hodges-Simeon, et al.

The same was found with crewmembers of the International Space Station. REF: J Appl Physiol. 2020 Feb 1;128(2):264-275.

Salivary antimicrobial proteins and stress biomarkers are elevated during a 6-month mission to the International Space Station. Nadia H Agha, et al.

More important, restoring DHEA sulfate levels in men over 60 was shown to produce profound improvements in multiple immune functions. REF: J Gerontol A Biol Sci Med Sci. 1997 Jan;52(1):M1-7.

Activation of immune function by DHEA in age-advanced men. O Khorram , L Vu, S Yen

4. And finally, a suggestion that has suddenly become controversial: Swishing with dilute hydrogen peroxide (H₂O₂)
Rationale: the SARS-CoV-2 virus hangs out in the oral and nasal mucosa for about 48 hours after exposure. I don't have hard data on the effectiveness of a H₂O₂ swish, gargle and spit, but

A. It's safe

B. It's inexpensive (literally less than 1¢ per swish)

C. There is research showing that H₂O₂ rinses can have beneficial antimicrobial benefits (eg reducing gum inflammation) REF: International Journal of Dental Hygiene. The effects of hydrogen peroxide mouthwashes on the prevention of plaque and gingival inflammation: a systematic review. N Hossainian, DE Slot, F Afennich, GA Van der Weijden

Instructions:

1. Start with a 3% concentration of hydrogen peroxide. That's what you'll find in brown bottles at any pharmacy. Next, combine one part hydrogen peroxide with two parts water. Your mix will have a

concentration of 1% hydrogen peroxide. (Natalie and I keep a bottle of this mix in the car, not to use while driving, but soon after a presentation where we've been answering questions and conversing with unmasked people.)

2. Take a small mouthful of your hydrogen peroxide and water mix. Gargle and swish the mixture around in your mouth for about 60 seconds.

3. Spit the solution out after gargling.

Q: Is it true that thousands of people have died within days of getting vaccinated?

A: These numbers are derived from the Vaccine Adverse Event Reporting System aka the VAERS database. Deep breath...

VAER'S the truth?

1. Anyone can submit a one-page report. You don't have to be a doctor. It is possible that people are submitting fraudulent reports in order to drive up adverse effect numbers.

2. *Even reports submitted by a doctor are still unverified.* That means no effort is made to investigate whether the adverse event was *actually caused* by the vaccine. Remember that association is not cause. Adverse events occurring within 3 weeks of vaccination can be caused by myriad factors. A person who starts experiencing COVID symptoms would very likely rush to get a vaccine. Remember that the vaccine takes at least 2 weeks (in a healthy person) to generate neutralizing antibodies. So in these cases, an adverse effect following vaccination would be more likely to be caused by the complication from COVID. Still, in the VAERS database, this would be listed as a vaccine-related adverse effect.

Q: Then what is the value of the VAERS database?

A: The system was created to give vaccine makers a heads-up if there was a clear indication of a cause and effect pattern. The operative word is *pattern*. And even though vaccine foes have made claims for rampant autoimmune disease, such numbers do not show up. Nor did any pattern of adverse events show up in more than 100,000 participants of the Moderna and Pfizer clinical trials. Importantly, these people have been carefully followed now for over a year.

NOTE: One pattern that was identified recently is myocarditis (inflammation of the heart muscle) that appears to follow mRNA vaccination in some young men. How many? the CDC reports that for every million doses of mRNA vaccine given, there have been 67 cases of heart inflammation in boys 12 to 17 (nine in girls of that age group), 56 in those aged 18 to 24 (six in girls), and 20 in males 25 to 29 (three in girls). REF: <https://www.health.harvard.edu/blog/new-information-for-parents-on-myocarditis-and-covid-19-vaccines-202107012523>.

This represents a very low risk, considering that:

1. In the vast majority of cases, individuals who experience vaccine-related myocarditis recover with medication and rest.
2. COVID-19 infection *commonly* causes severe myocarditis and pericarditis.

Q: What about that whistleblower who uncovered 45,000 additional vaccine-related deaths?

A. Please. This was a bizarre claim made in a lawsuit that was immediately thrown out. Why was it inadmissible? Because it was a claim made by an unidentified woman who was incapable or unwilling to reveal her methods or sources.

Q: I have heard that a vaccine is impossible for COVID because it can go from humans to animals.

A. This common misconception derives from the misunderstanding - or intentional misinformation- regarding vaccines. It's important to understand the difference between eradication and control. While it is true that you cannot eradicate a pathogen that has a common animal host, most vaccines are intended to *control* infections by reducing the number of sick individuals, and/or reducing the severity and mortality associated with the disease. That was always the design of COVID-19 vaccines, and that is what we are seeing.

Q. Is it true that these vaccines do not stop the transmission of COVID so therefore are not actually vaccines.

A. The transmission issue is another confusion. While it is true that COVID positive vaccinated people can have viral particles detected in their saliva, and could therefore transmit the disease through a cough or sneeze, this is only true for a few days, after which their immune response - derived from the vaccine - rapidly reduces viral load. We know this from excellent work conducted in Singapore. See chart above. What's more, there may be ways to reduce the viral load in the mouth and nasopharynx. See DHEA and H2O2 above.

Q: What about kids?

1. First, vaccinate the adults and teens around them.
2. Next: make sure they have optimal levels of vitamin D. If your child is scheduled for any blood test, be sure to inform (do not ask) your doctor to include serum 25 hydroxy vitamin D. You're looking for levels between 30 and 100 ng/mL. To maintain these levels most children require vitamin D supplementation. Why?

Because kids don't play outdoors anymore, and they are drinking less milk (the main source of Vitamin D fortification).

For children ages 5 to 18, a convenient way to supplement is 60,000 iu once a month. While that might sound like a large dose, that is easy to remember and it has been shown to be safe and effective in published clinical trials, one of which concluded:

“Vitamin D supplementation in the doses of 60,000 IU monthly is a reasonable, safe and cost-effective regimen for children to attain and maintain vitamin D sufficiency.”

REF: J Pediatr Endocrinol Metab. 2016 Apr;29(4):413-6.

Efficacy and safety of a single monthly dose of cholecalciferol in healthy school children. Mohammad Shafi Kuchay, et al.

3. Finally, remember that most kids with COVID will have mild symptoms. Home care (with nutritional support) is usually sufficient. Please have a pulse oximeter to monitor blood oxygen, and a thermometer. Contact your doctor if oxygen saturation falls below 94%, if your child spikes a fever higher than 101°F or has any difficulty breathing.

Conclusion and prediction

1. As someone who had to be convinced, these vaccines actually work for what they're designed to do, which is to prevent you from dying and getting really sick. If you're vaccinated, your risk of a symptomatic breakthrough case remains very low—just 0.01 to 0.29 percent of fully vaccinated people will experience one, according to one estimate. And if you do get COVID-19, your immune system is better prepared to handle an infection than it would have been without the vaccine.

2. SARS-CoV-2 is a mucosal respiratory virus. So I predict that we will see vaccines administered by a spray that is refrigerator or room temperature stable. These vaccines will induce IgA-mediated immunity in the nose, throat and mouth, representing a huge step beyond the current vaccines that work in the blood. In the meantime, you can take steps to optimize mucosal immunity by maintaining optimal levels of DHEA. See REF's above.

Reminder: Synergized DHEA for Men and Synergized DHEA for Women are available at:

<https://my2048.com/product-category/dhea/>

and

<https://thehealthyskeptics.com/shop/4-bottles-synergized-dhea-for-men/>

<https://thehealthyskeptics.com/shop/4-bottles-synergized-dhea-for-women/>

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What's your plan?

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What to Explore. What to Ignore.