



PAPPAS HEALTH

# Sam P. Pappas, M.D.

Dear Friends,

Today we offer more information on an interesting potential mechanism of chronic COVID, review exciting news on the latest vaccine, add to the growing list of effective treatments, take a look at some supplement and lifestyle tips, and share new offerings from the practice.

## Latest in COVID news

### **COVID-19 Is Looking More and More Like an Autoimmune Disease**

Autoimmunity may explain how the virus inflicts such widespread and unpredictable damage

[The Connection Between Covid-19 and Autoimmunity](#)

[Rogue antibodies could be driving severe COVID-19 news feature](#)

In [an international study](#) in Science, 10% of nearly 1,000 COVID-19 patients who developed life-threatening pneumonia had antibodies that disable key immune system proteins called interferons. These antibodies — known as autoantibodies because they attack the body itself — were not found at all in 663 people with mild or asymptomatic COVID-19 infections.

['Breakthrough Finding' Reveals Why Certain COVID Patients Die](#)

We have been actively engaged in the search and treatment for autoimmune disease and, as many of you know, there are many successful approaches that can help autoimmune disease in general. Learning more about the fundamentals of autoimmune diseases might also help those patients dealing with the chronic effects of COVID-19. Here are two good resources on a more integrative approach to autoimmune diseases.

[What Is Autoimmune Disease?](#)

[Articles 10 Strategies to Reverse Autoimmune Disease](#)

### **Treatments:**

[Inhaled budesonide in the treatment of early COVID-19 illness: a randomised controlled trial](#) - A common inhaled steroid used for asthma shows impressive benefits, it cut COVID-19 hospitalizations by 90%.

[Antidepressant fluvoxamine could keep mild COVID-19 from worsening](#) - Common and safe antidepressant aka Luvox has shown impressive benefits. It has had some reports about helping long COVID symptoms as well.

[Pleiotropic Effects of Tetracyclines in the Management of COVID-19: Emerging](#)

[Perspectives](#) - Common antibiotics in the tetracycline family, specifically doxycycline but also tetracycline and minocycline are showing great help in COVID-19.

## Ivermectin

Ivermectin continues to shine as a safe and effective treatment and has helped many of our patients. In fact, my eldest son who has a history of asthma and is a freshman at college recently came down with COVID-19, and I treated him with a multimodal approach that included not only supplements but also Ivermectin combined with other antibiotics and steroids with outstanding results.

[Effectiveness of a multidrug therapy consisting of ivermectin, azithromycin, montelukast and acetylsalicylic acid to prevent hospitalization and death among ambulatory COVID-19 cases in Tlaxcala, Mexico](#) - In this trial from Mexico montelukast aka **Singulair**, a common allergy and asthma oral medicine, was added to Ivermectin and Azithromycin with very good effects.

[Role of ivermectin in the prevention of SARS-CoV-2 infection among healthcare workers in India: A matched case-control study](#) - In this trial from India, Ivermectin was utilized as prophylaxis in health care workers with impressive results. A trial from Argentina in health care workers showed similar results.

*Two-dose ivermectin prophylaxis at a dose of 300 µg/kg with a gap of 72 hours was associated with a 73% reduction of SARS-CoV-2 infection among healthcare workers for the following month. Chemoprophylaxis has relevance in the containment of pandemic.*

I have been taking Ivermectin for prophylaxis for over four months without incident. We think that as we look to open up our society and get back to some semblance of normality people should consider the role of Ivermectin use for either work and/or travel. And since there are no interactions with Ivermectin and the vaccines it can be used additionally. Please contact us if you have questions and to see if it might be a good fit for you. As practitioners in Personalized Medicine, there is no “one size fits all” however the continued effectiveness and safety of this medicine point to its possible wider role.

[Ivermectin is effective for COVID-19: real-time meta analysis of 42 studies](#)

# IVERMECTIN FOR COVID-19

**40 TRIALS, 288 SCIENTISTS, 14,717 PATIENTS**

**20 RANDOMIZED CONTROLLED TRIALS**

**89% IMPROVEMENT IN 11 PROPHYLAXIS TRIALS RR 0.11 [0.05-0.24]**

**81% IMPROVEMENT IN 12 EARLY TREATMENT TRIALS RR 0.19 [0.11-0.33]**

**72% IMPROVEMENT IN 20 RANDOMIZED CONTROLLED TRIALS RR 0.28 [0.17-0.47]**

**78% IMPROVEMENT IN 15 MORTALITY RESULTS RR 0.22 [0.12-0.41]**

Lastly, from the world's expert on Ivermectin and our fellow Virginian Dr. Paul Marik, a critical care specialist from Eastern Virginia Med in Norfolk, during a recent medical interview (please note this is simply an image, not a video):



Some interesting takeaways come from Dr Marik's answers in the Q&A section at the end:

- Longhaulers can try taking a 2-day course of IVM
- No interaction between IVM + vaccines
- Continue to take IVM prophylactically until at least 2 weeks after your second dose of vaccine
- He has been vax'd but still takes 12 mg of IVM before travelling
- High risk – e.g. travelling – continue to take IVM even after vax
- No need to protect the liver from IVM
- Absolutely safe for kidneys
- Much better to take IVM with food than without (IVM has a stronger presence)
- Almost impossible for coronavirus, even the variants, to develop resistance to IVM



## Johnson and Johnson Vaccine gets approval- data looks impressive

[Johnson & Johnson Janssen Covid-19 Vaccine 85 Percent Effective By Day 28 And 100 Percent Effective By Day 49](#) - Exciting news about J & J vaccine.

*However, with respect to the prevention of severe disease, the J&J vaccine was 85 percent effective across all regions by post-vaccination day 28. But most interestingly, J&J announced that there were no cases of severe COVID-19 among participants after post-vaccination day 49. Does this mean the J&J vaccine is 100 percent effective at preventing severe COVID-19 by day 49? We will only know that once the full data are released—but it is possible, based on these preliminary reports. In addition, no participants who received the J&J vaccine were either hospitalized for COVID-19 nor died 28 days post-vaccination. This implies that one shot and one month of waiting could eliminate the most feared complications of SARS-CoV-2 infection, assuming that new variants do not render these findings obsolete.*

### [Why this week's FDA meeting on J&J's coronavirus vaccine will be important](#)

(Dr. Marty Makary from Johns Hopkins says the headline should read: Trial result: J & J Vax was 100% effective in preventing COVID-19 death in everyone vaccinated and was 100% effective in preventing COVID-19 hospitalization after 28 days).

#### Comparison between two types of vaccine technology

*Moderna's and Pfizer's vaccines each rely on the same messenger RNA technology to train the immune system to repel the coronavirus. And both were about 95% effective at preventing symptomatic COVID-19 in clinical testing, raising expectations that other shots might be similarly potent.*

*That hasn't quite happened. While multiple shots using different, more established technologies — including J&J's vaccine — have proven highly effective, they haven't matched the bar set by Moderna and Pfizer. And that raises questions for the agency and outside experts to answer: Are mRNA vaccines superior, or were they fortunate to be tested earlier, before the spread of more transmissible variants?*

*J&J has argued the latter and highlighted its shot's near-complete protection against severe COVID-19 and hospitalizations, a significant finding that's now consistent across several vaccines. That will be an important message for regulators to emphasize and for convincing people, J&J's shot is just as important to get as any other.*

This vaccine appears to have a better side effect profile than the mRNA vaccines. It also was tested during a time period when there was much more COVID-19 rampant in our population. The fact that it is more battle-tested in real-world scenarios and looked at more significant outcomes such as preventing hospitalizations and death makes it further appealing for many people.

#### New Cancer Genetic Testing available

Pappas Health is partnering with [Natera](#), an innovator in genetic testing, to offer genetic testing for common hereditary cancers. The [Empower Hereditary Cancer Test](#) is a 53 gene sequencing panel that helps identify individuals with hereditary cancer predisposition syndromes. Genes in this cancer panel are associated with increased risk for eight cancer types including **breast, ovarian, endometrial, colon, gastric, pancreatic, melanoma, and prostate cancer**. I'll be getting this test as well, my mother passed away from ovarian cancer and I may be at risk for other cancers such as prostate, let alone other common cancers as part of the panel.

This simple test is a non-fasting blood draw that we do in our office. Natera works with most insurances to ensure there is good coverage. See Natera's [pricing webpage](#) for more detailed information.

## FASTING

As many Christians embark on Lenten rituals such as fasting and turn to the widely respected benefits of the Mediterranean Diet, I find it a good time to showcase both features.

I believe fasting practices are a central component to the impressive health benefits found in the original research of the Mediterranean Diet which was undertaken on the island of Crete during post-World War II Greece. These authors make the same claim:

### [Greek Orthodox fasting rituals: a hidden characteristic of the Mediterranean diet of Crete](#)

*The Seven Countries Study population of Crete came from rural areas of Crete where religious strictures and rituals were deeply embedded in the traditions, customs and lifestyle including dietary habits. Although the Seven Countries Study attributed the excellent health status of the population and the low CHD morbidity and mortality to dietary habits (Menotti et al. 1999), there is no investigation of the impact of Greek Orthodox fasting recommendations on dietary intake.*

*The low incomes common to the Crete population in the early 1960s do not totally explain the low meat and dairy-product intake since the majority of the population were small-hold farmers producing their own animal and plant products. During the Greek Orthodox Church fasting periods, animal products are preserved for the non-fasting periods. Apart from the health-promoting effects, these practices had positive benefits in terms of economic and environmental sustainability.*

*The Orthodox Church specifies dietary restrictions and a fasting for a total of 180–200 d annually. The faithful are advised to avoid olive oil, meat, fish, milk, eggs and cheese every Wednesday and Friday, with the exception of the week after Christmas, Easter and the Pentecost. There are three principal fasting periods annually.*

**Stay tuned for more information on fasting- I take a deep dive in an upcoming writeup.**

## ESSENTIAL AMINO ACIDS

One of the secret weapons I regularly use is Essential Amino Acids (EAAs) to help me with energy, fasting protocols, and exercise performance. Since they are very helpful for preserving muscle as we age, they should not be limited to the young. Ben Greenfield discusses amino acids and EAAs at length in this good article with many research links: [What Are Amino Acids? \(Plus What The Best, Most Effective Form Is\)](#).

In fact, there is a significant [muscle-preserving effect](#) of EAA supplements when ingested, especially during training in a fasted state or ketotic state, and this includes decreased indicators of muscle damage and inflammation. This basically means that if you popped some EAAs, even if you didn't eat anything, you wouldn't "cannibalize" as much lean muscle during a fasted workout session, a long intermittent fast, a bout of ketosis, or a marathon, Ironman triathlon or any other long, voluminous or relatively intense event.

[This study](#) shows that consuming an EAA mixture after resistance training increases muscle protein synthesis and net muscle protein balance, indicating that ingesting EAAs post-workout may stimulate faster muscle repair, recovery, and growth. Yet [another study showed](#) the

potential for EAAs to cause muscle growth and regeneration through them being a potent rapamycin complex 1 (mTORC1) activator (activating cell growth), causing muscle satellite cell proliferation. As you age, your muscle produces less or has a delayed ability to proliferate satellite cells in response to exercise, which is bad news, since satellite cells are [essential for skeletal muscle regeneration](#). But older men who consumed EAAs after resistance exercise had greater satellite cell proliferative capacity than those who didn't supplement. This is especially important information if you're at all interested in anti-aging since muscle mass and resistance training keep you young.

Here are the brands I regularly use: [Thorne's Amino Complex](#) and [Xymogen's XymoBoIX](#). Feel free to contact the office for more information on ordering or purchasing these from our office.

## WISDOM FROM FITNESS LEGEND

[Jack LaLanne's Workout Routine, Diet Plan, And Supplement Choices](#) - Excellent article and summary sent from my brother:

1. *"He ate only 2 meals per day and did not believe in snacking, which today we call intermittent fasting. He would rise early (often at 4 am) and work out on an empty stomach, and not have his first meal until nearly noon, then nothing again until dinner."*
2. *Lean Meals "Hard-boiled egg whites, broth, oatmeal and soymilk and seasonal fruit was a typical first meal for which he took around 11 am. His 7 pm dinner was equally lean, consisting of raw vegetables, and fish. He would often indulge in a glass of wine with dinner."*
3. *"I train like I'm training for the Olympics...the way I've always trained. You see, life is a battlefield. Life is survival of the fittest. How many healthy people do you know? How many happy people do you know? Think about it. People work at dying; they don't work at living."*
4. *"You've got to train for it. You've got to eat right. You've got to exercise. Your health account, your bank account, they're the same thing. The more you put in, the more you can take out. Exercise is king and nutrition is queen. Together, you have a kingdom."*
5. *LaLanne on discipline "I do it as therapy. I do it as something to keep me alive. We all need a little discipline. Exercise is my discipline."*
6. *Supplement King "LaLanne was a big fan of vitamins and supplements and took 30-40 each day. He considered them to be his 'health insurance policy.'"*

## [Famed Strongman Jack LaLanne's Key to Happiness](#)

*For 34 years beginning in '51, he also starred in The Jack LaLanne Show, where he'd discuss health, fitness, and psychology issues—as well as show off his many strongman talents. In one episode of the show, LaLanne has a frank discussion with his TV audience about the notion of unhappiness, and what we can do to turn that around.*

*"People have gotten so far away from the natural way they should be living that they have lost the ability to be happy anymore," explains LaLanne. "That's the important thing about life: to be happy," he drives home.*

My friend and fitness legend herself [Denise Austin](#) has routinely talked about Jack LaLanne as not only a mentor but that he was a great person. I would use the term to describe him - **Kalos Kagathos**- the Ancient Greek term for the harmonious ideal of the good, humane, and beautiful person.

### **GREAT and GOOD - Rethinking Greatness as the Ideal Form of Leadership**

Speaking of Jack LaLanne's good character, my brother and I have routinely discussed and showcased the leadership qualities of those who are both talented and virtuous, most accessibly in our joint website we like to blog from, [The Leader's Workout](#).

In the following new article, the first of three parts, my brother Tom, who is a former Army Captain and West Point graduate and who now works in the business world as a Corporate Athlete, takes a deep dive into leadership and character. See [Great and Good, part 1](#).

### **Webinar announcement**



**Upcoming Webinar and LIVE Q&A with Dr. Sam Pappas**

Join Dr. Pappas' live discussion on COVID-19. He will be discussing his take and research on Vaccines, therapeutics, supportive care, Nutraceuticals, and more.

**March 18, 2021 @5:00 pm EST**

Stay on after the talk for a LIVE Q&A

[Register here!](#)

After registering, you will receive a confirmation email with more information.

I leave you now with a quote I heard recently that I have been pondering. Although it was used in the context of the importance of saving money, I believe it is equally applicable to the world of health:

**Never fail for the lack of effort- effort requires no skill.**

Yours in health,  
Sam Pappas, M.D.