DRAFT

Compiled By:

Michael Richardson
Franklinton, Louisiana
Member, Union Primitive Baptist Church, Ruth, Mississippi,

This article evolved from 4/1/2020 to 5/12/2020.

Citation: Thanks to UK retired Dr. John Campbell, Dr. Roger Seheult, MD of MedCram, and Ivor Cummins, who have posted daily updates on YouTube. Since the CoVid-19 Pandemic started, Dr. Campbell and Dr. Roger Seheult have done an abundance of research and teaching. He has been instrumental in directing me to the medical sources referenced here.

Special thanks to Elder James Conley, who shared guidance with relevant scriptural references. Special acknowledgement to God & Jesus Christ for leading me to compile this information.

Sources: King James Bible, New England Journal of Medicine; Public Health England; National Center for Biotechnology Information; British Medical Journal, UK Office of National Statistics.

Can Vitamin D Supplementation Improve Immunity and Outcome for Covid-19?

Our leaders have looked to medical science for a miracle drug to cure the Covid19 pandemic.

To date, several treatments initially showed promise, but while those treatments did appear to reduce recovery time and mortality, the results were disappointing, and they also had some unfortunate side effects.

Eventually, reliance on our God given immune system was used to restore health in those that have recovered.

There are writings in the Bible that pertain to the Pandemic that we are now facing.

Look to Psalm 91 for direction and protection from this plague.

We can also look to the 2nd book of Peter, verse 1:3:

"According as his divine power hath given unto us all things that pertain unto life and godliness, through the knowledge of him that has called us to glory and virtue"

I interpret this verse to mean God has placed everything we need on this Earth to sustain a long and healthy life.

I find Malachi 4:2 thought provoking: 2 But unto you that fear my name shall the **Sun** of righteousness arise with healing in his wings; and ye shall go forth, and grow up as calves of the stall.

Unfortunately, living in a modern society, people living in densely populated areas, and changes in historical diets, has set the stage for a Perfect Storm of respiratory illness particularly in the case of the CoVid-19 Pandemic.

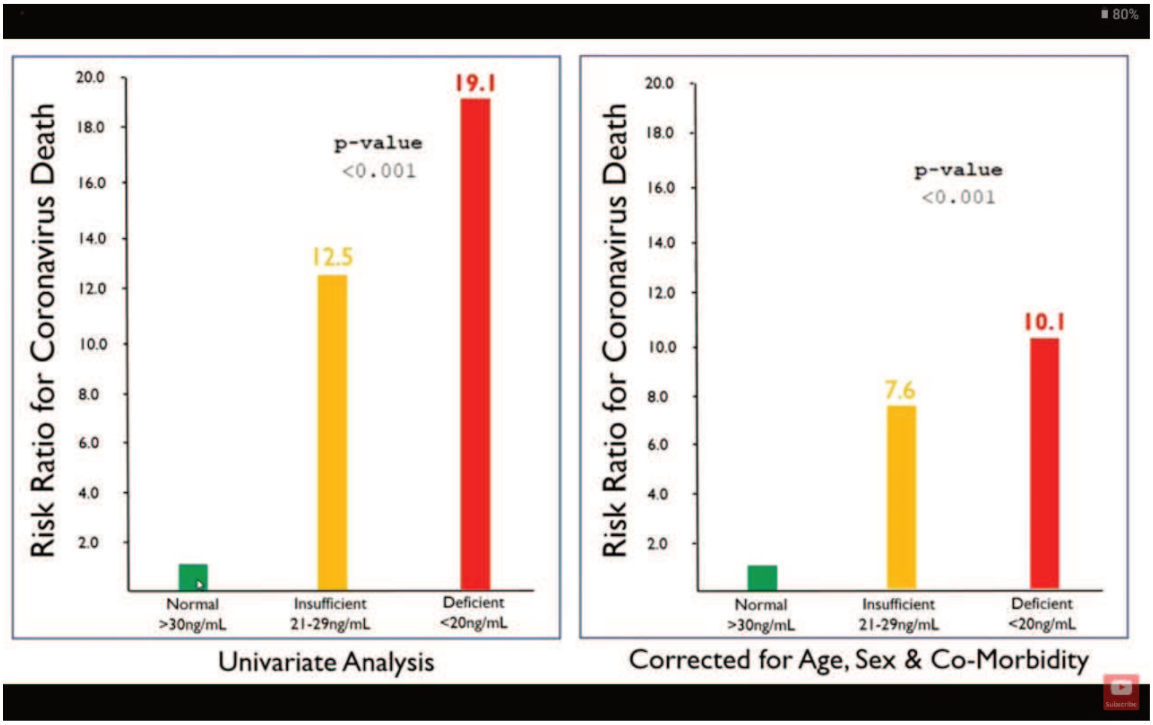
There is an abundance of scientific evidence that confirms we should turn to God's Word to enhance our God given immune system to prevent and treat CoVid-19, and to reduce the severity of those that develop the symptoms of infection.

It is believed that 80% of those infected with CoVid-19 experience little to no symptoms, are capable of walking around and infecting others. What is the difference between those that have little to mild symptoms, and those that wind up in the hospital and others fighting for their lives?

As our society has modernized, we have gradually migrated away from the old tried and true methods of maintaining health. We are challenged not to ignore science, but to find a balance between the Word of God and Science as we face this unprecedented challenge in a modern society. We cannot ignore the fact that God gave us everything we need to maintain health, as the CoVid-19 Pandemic has brought the entire world to its knees.

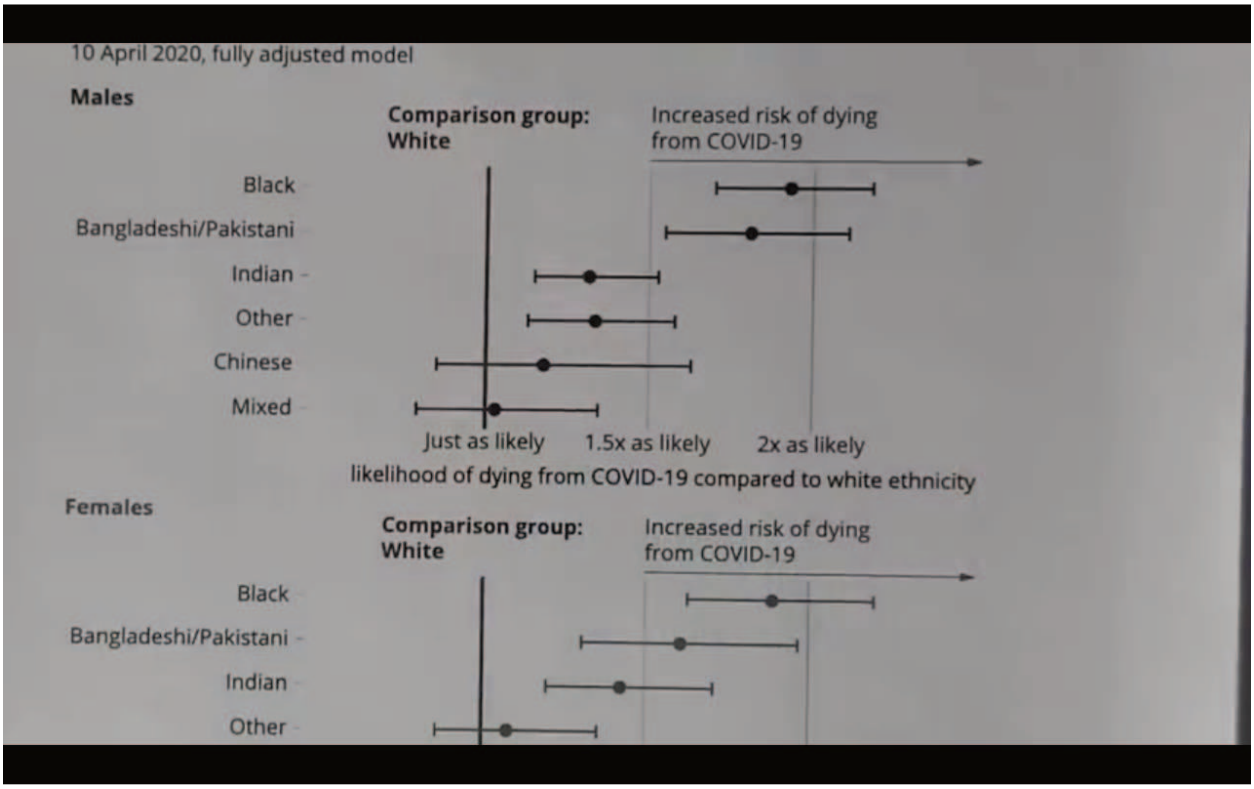
U.S. Demographic statistics have recently revealed both positive test and mortality rate for the Covid-19 disease is about 70% dark skin, and 30% light skin.

The below graph from Indonesia shows those that had insufficient 25(OH)D levels were 7x more likely to die, and those with deficient levels were 10x more likely to die. There are other co-morbidity conditions that contribute to low Vitamin D levels.



The darker the skin, the more resistant it is to the sun's UV light. UV-B light creates an abundance of Vitamin D.

UK Office of National Statistics with corrections for occupation and socioeconomic factors:



In comparison, plant life is dependent on sunshine to manufacture Chlorophyll. Chlorophyll is vital for photosynthesis, which helps plants get energy from light. If sunshine were suddenly blocked, all plant life would die.

About 42% of the US population is vitamin D deficient. However, this rate rises to 82% in black people and 70% in Hispanics

Research from data using over 10,000 patients indicate adequate Vitamin D supplementation prevents viral and bacterial infection, especially respiratory infections. In other cases, it feeds our immune system to reduce the severity of infection.

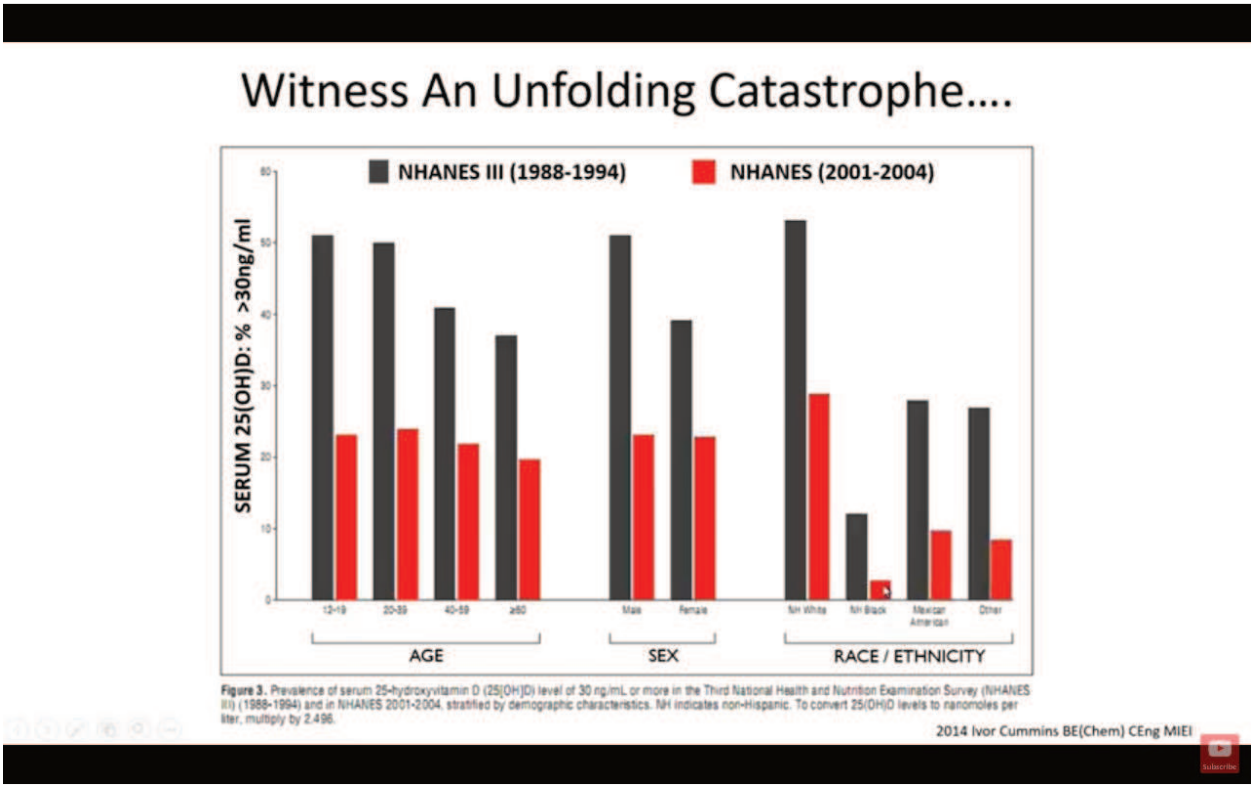
I do not intend to rule out socioeconomic factors, but the Vitamin D deficiency factor is too obvious to ignore. Clinical studies have revealed Vitamin D deficiency peaks in the Northern Hemisphere during the month of March after reduced sunlight following winter. This may be why Australia has seen an exceptionally low infection rate. Australia is in the Southern hemisphere and is moving from Summer to Autumn.

It has been long known that light skin produces Vitamin D in sunlight much more efficiently than in dark pigmented skin. Dark pigmented skin reduces the risk of sunburn.

In whites, very white skin is especially prone to sunburn. 40 years ago, Dermatologist issued a warning about the risk of excessive exposure to the sun increasing the chance for melanoma.

There are 3 types of UV light from the sun, UV-A, UV-B, and UV-C. UV-C is a short wavelength and does not even penetrate the Earth's atmosphere to the ground. UV-A is long wavelength and penetrates the upper layers of skin and causes burns. Most sunscreens do not stop UV-A radiation effectively. UV-B is a shorter wavelength than UV-A, it penetrates the atmosphere and reaches the outmost layers of the skin. It usually does not cause burning and is critical for the development of vitamin D by the skin. Unfortunately, most sunscreens effectively filter out the helpful UV-B, but not the harmful UV-A.

A peer reviewed randomized Clinical trial found that in 1991 50% of the US population was deficient in Vitamin D. In 2006 that number had risen to 73%. It has been argued that this was fueled by dermatologist that raised the alarm that excessive exposure to sun was causing an increase in skin cancers. Careful, I used the word excessive. When many things that are used in excess, there will be bad things to come as is noted in Proverbs vs. 25:16, *"Hast thou found honey? Eat so much as sufficient for thee, lest thou be filled therewith, and vomit it."*



Most of the body's Vitamin D is produced by sunshine on the skin. Foods rich in good fat, such as fish, are a good source of Vitamin D, but is typically not part of our regular diets.

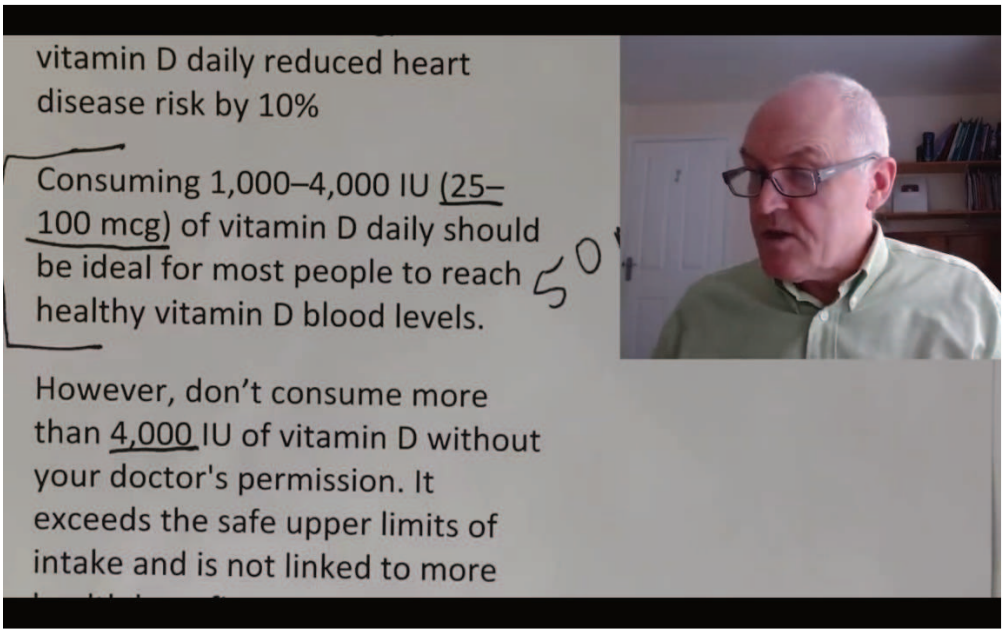
In Northern hemisphere winters, the Sun is much lower in the sky, the days are shorter, and due to cold weather people stay inside more. When they go outside, they are typically wrapped in warm clothes. It should be obvious we get more sunshine on our skin during the summer than winter.

Even those with light skin pigment do not have enough Vitamin D during and after the winter months, with the peak deficiency previously documented in March.

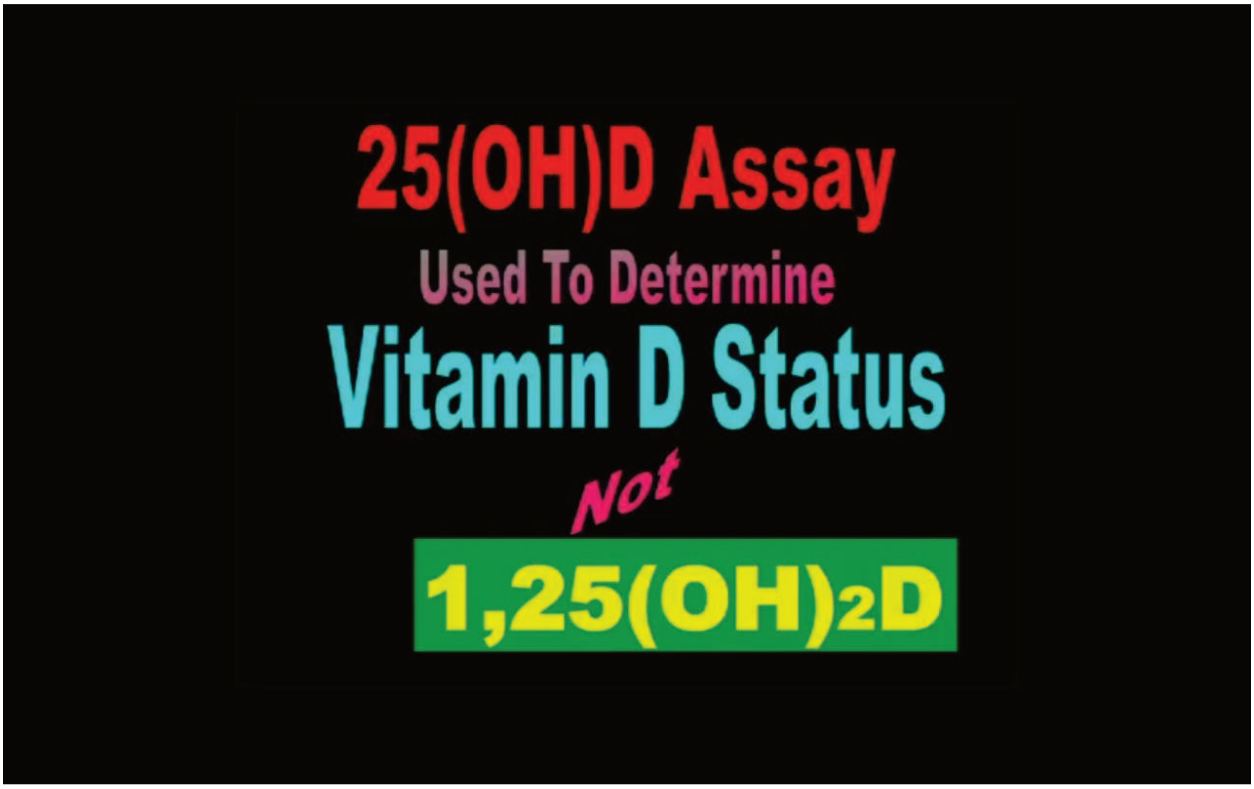
Not only does Vitamin D prevent respiratory infections and diseases, there are peer reviewed clinical trials that showed Vitamin D deficiency is a risk factor in cancer and a whole list of other diseases.

It seems CoVid-19 is running rampant in assisting living and nursing homes, where these people are “shut-ins”, and have little or no access to sunshine, especially in winter.

To be technical for a moment, the SARS-Cov-2 virus that causes the Covid-19 disease, enters the respiratory cells through the ACE-2 receptor. It is believed that Vitamin D blocks this receptor so the SARS-Cov-2 virus cannot penetrate the cell. In reference to dosage, it is best to get a recommendation from your physician.
https://www.healthline.com/nutrition/vitamin-d-dosage



For Vitamin D blood test purposes:



Conclusion:

With a respiratory disease pandemic ravaging the world, this is the worst time for people to be locked inside their homes. Others simply do not get the opportunity to get outside enough. It has been estimated that a person's skin can produce the equivalent of 10,000 IU vitamin D with just 15 minutes of Sun exposure on the legs, arms, and head per day.

There is a reason that our skin produces large quantities of Vitamin D when exposed to sunlight. Our bodies were designed to need it to function.

If you are unable to get the required daily Sun exposure, current research indicates you should be taking a supplement.

It is undisputed that sufficient levels of Vitamin D have previously prevented and lessened the severity of illness. Recent research is indicating that Vitamin D is inhibiting the immune system from over reacting in the most severe cases of CoVid-19 and creating what is known as a Cytokine Storm, which causes severe inflammation of lung tissue and insulates the transfer of oxygen to the blood. Adequate levels of Vitamin D or believed to keep the immune system in check.

Many papers are calling for more studies. It is my belief, if you are Vitamin D deficient, you need supplementation regardless of what the relationship to Covid19 infection and mortality rates eventually conclude. Previous studies have concluded that benefits of adequate Vitamin D are indisputable.

The at-risk population includes:

- All persons above 37° North or South Latitude in winter , regardless of skin pigmentation.
- Persons with dark pigmented skin, especially in winter
- Persons who do not get enough Sun exposure
- Light skinned individuals who avoid Sun exposure to avoid sunburn
- Persons in assisted living and nursing homes
- Persons who are home bound. We often affectionately refer to those as “Shut-Ins”
- Those with low BMI- <10 , will need moderate dose continuous supplementation when sunshine is not available due to the inability to store an adequate amount in the body.
- Those with high BMI >40, will need increased supplementation because Vitamin D is stored in fat cells. It will take more Vitamin D to reach the proper blood levels the higher the BMI.
- There is widespread evidence that Vitamin C is advantageous for respiratory health. I am not going into Vitamin C as that is not the focus of this writing, I do however, encourage use within clinical guidelines.

Vitamin D3 is widely available and inexpensive. Vitamin D3 is an over the counter supplement. There is no prescription needed.

In reference to dosage, a blood test for 25(OH)D Assay would determine exactly what your Vitamin D level is. Let a Physician recommend what is best for you.

Sunlight was championed for use as a treatment for Tuberculosis and other diseases in the early 1900’s with success.

A look back at History: Perrysburg – A mecca for Heliotherapy

American Journal of Health (NY) Sept 1926 pictures attached on next page.

Have the sick children outdoors – even in the winter!

Clipped from the PDF
In summer the children play and frolic over the extensive hay fields and woodlands. In winter, with only the protection of a loin cloth, they ski, coast and toboggan on the snow-covered farm hills—their delicate, sick bodies in the meantime being rebuilt and hardened by exposure to the direct sunlight.

The below picture is a Sanatorium in Denver Colorado where patients were being treated for TB. Sunshine exposure, referred to as Heliotherapy, was used as early as the 1920's with success.

Heliotherapy in Denver (5,000-foot altitude results in LOTS of UVB which produces vitamin D)

Mineral and vitamin fortification in food began in 1924 with Iodine in salt.

In 1933 Vitamin D was added to milk to prevent rickets. Today, milk is not as prevalent in our diets as it once was, and the levels to prevent Rickets are now known to be too low for other benefits.

Recent research indicates that Vitamin D levels should be much higher than what was required to prevent Rickets.

US 42% of people have a vitamin D deficiency 82.1% of black people 69.2% of Hispanic people. Higher blood levels = over 33 ng/ml or 82.4 nmol/l Lower blood levels less than 12 ng/ml or 30 nmol/l 50% lower risk of colorectal cancer Consuming 1,000 IU (25 mcg) daily would help 50% of people reach a vitamin D blood level of 33 ng/ml (82.4 nmol/l) Consuming 2,000 IU (50 mcg) daily would help nearly everyone reach a blood level of 33 ng/ml (82.4 nmol/l) Taking 1,000 IU (25 mcg) of vitamin D daily reduced heart disease risk by 10% Consuming 1,000–4,000 IU (25–100 mcg) of vitamin D daily should be ideal for most people to reach healthy vitamin D blood levels. However, do not consume more than 4,000 IU of vitamin D without your doctor's permission. It exceeds the safe upper limits of intake and is not linked to more health benefits.

Sources and additional supporting documents:

Malachi 4:2 King James Version (KJV)

2 But unto you that fear my name shall the **Sun** of righteousness arise with healing in his wings; and ye shall go forth, and grow up as calves of the stall.

Cytokine Storm:

https://www.webmd.com/lung/news/20200417/cytokine-storms-may-be-fueling-some-covid-deaths

Vitamin D Dosage recommendations:

https://www.healthline.com/nutrition/vitamin-d-dosage#section2

Public Health England Vitamin D recommendations

https://www.gov.uk/government/news/phe-publishes-new-advice-on-vitamin-d

Vit D and COVID-19

https://www.ncbi.nlm.nih.gov/pubmed/32252338

Evidence that Vitamin D Supplementation Could Reduce Risk of Influenza and COVID-19 Infections and Deaths. Prevalence and correlates of vitamin D deficiency in US adults

https://www.ncbi.nlm.nih.gov/pubmed/21310306

https://www.healthline.com/nutrition/vitamin-d2-vs-d3#section7

Vit D deficiency in Ireland

https://tilda.tcd.ie/publications/reports/pdf/Report_Covid19VitaminD.pdf

Vitamin D Deficiency: Diagnosis and treatment:

https://en.wikipedia.org/wiki/Vitamin_D_deficiency

History of Fortification:
https://www.ncbi.nlm.nih.gov/books/NBK208880/

Vitamin D Deficiency and Acute Lower Respiratory Infections in Children Younger Than 5 Years: Identification and Treatment
https://www.jpedhc.org/article/S0891-5245(14)00279-X/fulltext

Vitamin D supplementation -NCBI-NIH
https://www.ncbi.nlm.nih.gov/pubmed/32252338

British Medical Journal:
https://www.bmj.com/content/356/bmj.i6583