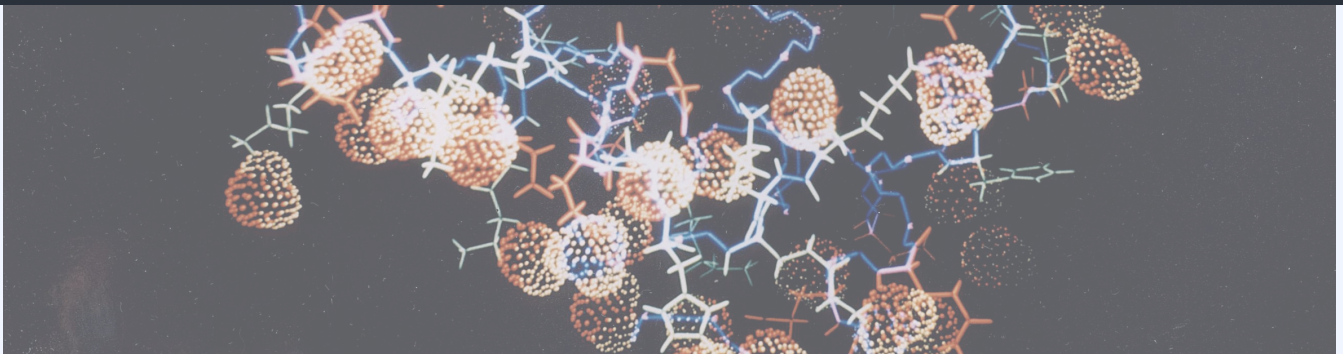


Q3 2021

# PLANET HEALTH NEWSLETTER

5A CLARKSON RD. ELLISVILLE, MO 63011

636.527.8888



## GLUTATHIONE, NAC AND IMMUNE FUNCTION

WRITTEN BY MICHAEL T. MURRAY, ND

One of the most critical compounds that every cell in your body produces and needs is glutathione. The cells use glutathione as a cellular protector or shield in protecting itself from oxidative damage. Glutathione is also important in neutralizing and escorting various toxins from cells and the body. Our cells can make glutathione through endogenous production as well as benefit from dietary intake and/or supplementation.

During these times of concern over COVID-19, maintaining sufficient glutathione levels is extremely important. A recent scientific article published in the journal ACS Infectious Diseases (May 28, 2020) has a title that pretty much says it all. "Endogenous Deficiency of Glutathione as the Most Likely Cause of Serious Manifestations and Death in COVID-19 Patients." Lower levels of glutathione results in the combinations of an impaired immune response, decreased protection against the virus and cellular damage, and an increased inflammatory response.

# WHAT IS GLUTATHIONE?

Glutathione is a small protein molecule composed of the amino acids glutamate, cysteine and glycine. Over the course of 100 years of research, more than 100,000 scientific papers have established maintaining cellular glutathione levels as one of the most important keys in maintaining proper cellular function, immune health and slowing the aging process. Glutathione's benefits can be divided into four vitally important functions:

- **Antioxidant.** Glutathione is the cell's major antioxidant critical to the recycling and proper utilization of other antioxidants such as vitamins C and E.
- **Immune system effects.** Glutathione protects immune cells from damage while also exerting some direct antiviral effects. It is also critical in modulating balance within the immune system.
- **Mitochondrial effects:** Glutathione plays a critical role in the function of mitochondria (the energy producing compartments in the cells).
- **Detoxifying compound.** Glutathione is the body's most effective detoxifying agent. Glutathione binds undesirable toxins, pollutants, cancer-causing chemicals, heavy metals and drug metabolites and excretes them through the urine or the gut.

## WHAT IS NAC AND HOW DOES IT BOOST GLUTATHIONE?

Another strategy to boost glutathione is taking N-acetylcysteine (NAC), which is a form of the amino acid cysteine. One of the building blocks: the key amino acid of glutathione. NAC supplementation can elevate cellular glutathione levels and is especially helpful in shielding the lungs, airways, and gastrointestinal tract from damage.

NAC also modifies respiratory tract mucus.

NAC is used orally and through breathing tubes to



## BENEFITS OF GLUTATHIONE

- Prevent brain and nerve damage
- Stop tumor progression and cancer growth
- Rid you of health-threatening toxins
- Protect you from DNA-damaging oxidative stress
- Reduce the risk and slow the progression of Parkinson's, Alzheimer's and other conditions
- Promote longevity by protecting telomeres
- Boost levels of active, protective glutathione
- Improve the ratio of active versus oxidized glutathione



## BENEFITS OF NAC

- Aids in preventing side effects from chemotherapy and radiation therapy.
- Increases glutathione levels in the lungs, kidneys, liver, and bone marrow.
- Anti-aging effect.
- Reduces the accumulation of age spots
- Can help treat and ease respiratory condition including sinusitis, asthma and bronchitis.
- NAC has demonstrated the ability to lessen the severity and the duration of the flu.
- Protects the liver and kidneys.
- Helps prevent bladder or neurological damage.
- Helps prevent colon cancer.
- Mental health.
- Biofilm disruptor
- Potential to improve fertility
- Powerful antioxidant.

# WHAT'S NEW?

## BIOFIL® 5 MG LIQUID CAPSULES



Collagen: reduces fine lines and wrinkles\*

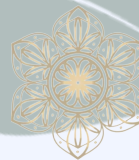
Elastin: tightens skin and gives it "bounce back"\*

Keratin: increases hair thickness and strength, increases nail strength\*

In addition BioSil has been clinically proven to:

- Reduce fine line and wrinkles\*
- Increase skin elasticity\*
- Thicken and strengthen hair\*
- Promote healthy bones and joints\*
- Increase collagen formation\*
- Help protect existing collagen\*

Finally a Plant Based Organic Protein Powder without Coconut oil or Sunflower oil! No gums or stevia. Sweetened with Monk Fruit. Only 5-7 ingredients.

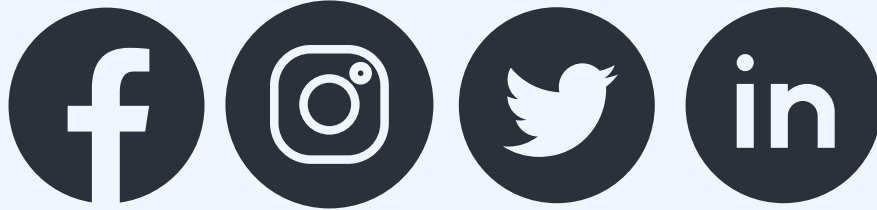


TRUVANI™



# JOIN OUR NETWORK

@PLANETHEALTHSTL



5A CLARKSON RD.  
ELLISVILLE, MO 63011

636.527.8888

[WWW.PLANETHEALTHSTL.COM](http://WWW.PLANETHEALTHSTL.COM)

## HOURS:

MON-THURS 9AM-7PM

FRIDAY 9AM-6PM

SATURDAY 9AM-5PM

CLOSED SUNDAY



To remove your name from our mailing list, please click [here](#).

Questions or comments? E-mail us at [planethealthstl@yahoo.com](mailto:planethealthstl@yahoo.com) or call 636.527.8888.