

# DOWN SYNDROME: SUPPORTING YOUR CHILD'S IMMUNE SYSTEM, COVID AND BEYOND

Dr. Candace Mathers, Life Blossom Wellness Monthly Newsletter



## MORE ARTICLES ON IMMUNE SUPPORT:

Covid Vaccine Quick Facts-1 Foods to Boost the Immune System-2 Immune Aid Summer Drink Recipe -3

## 1. There are 3 Covid-19 vaccine manufacturers in the US with more on the way

At the time of this publication, there are 3 covid-19 vaccines available: Pfizer (mRNA), Moderna (mRNA), Johnson and Johnson (viral vector). AstraZeneca and Norovax vaccines are currently in clinical trials.

#### 2. Authorized but not FDA Approved Yet

As of April 2021, none of the covid-19 vaccines have been approved by the FDA but they are authorized for emergency use. This means that the FDA allows the use of the covid-19 vaccines because, according to the FDA, there are no other approved, adequate, and available treatments for covid-19.

#### 3. A New Type of Vaccine Technology

Both the Pfizer and Moderna covid-19 vaccines use a new technology that involves mRNA using your cell's machinery to make a protein called the spike protein. Your body will then make antibodies to the spike protein. More traditional vaccines involve a weakened or dead virus. The mRNA covid-19 vaccines have no SARS-Cov-2 virus in them. While short term studies are promising, no long term studies have been done on safety yet.

### **Covid19 Vaccine Quick Facts**

Quicks Facts About the Available Covid-19 Vaccines

The covid-19 vaccine has arrived. To some that gives a sigh of relief while others may be a bit more leery. While the vaccine is only available to people 16 and older at the time of this publication, trials have begun in children as young as 6 months old.

While the decision to give your child the covid-19 vaccine is a discussion best left between you and your health care provider, here are some quick facts about the covid-19 vaccine to increase your knowledge.



#### 4. Found to Be Highly Effective

Both the Pfizer and Moderna covid-19 vaccines have been found to be ~95% effective in preventing a covid-19 infection according to the CDC. The Johnson and Johnson, 1 shot, vaccine is about 72-86% effective but, as of this publication, has been linked to the deaths of 6 women due to blood clots.

Editor's Note: It is the deep held belief and practice of Life Blossom Wellness and Dr. Candace Mathers to honor the choice of the parent to choose vaccination or not. Choosing to vaccinate is a personal decision between you and your health care provider that should be made with informed consent and mutual agreement.

### Foods for Your Immune System: 3 Foods that Pack an Immune Boosting Punch

Healthy Foods to Enhance Your Child's Immune System

With all of the talk of the Covid-19 vaccine and the reopening of many parts of the country, you still may not be ready to take your child with Down syndrome (DS) outdoors.

As any DS parent knows too well, our children tend to get sicker quicker and stay sicker longer than typical kids. What's worse is that when a child with DS gets sick, that illness can often become life-threatening requiring lengthy hospital stays and long nights of worry.

While you still may not feel comfortable taking your child outdoors, there are some great ways to boost his immune system with powerhouse immune boosting foods. Read on to find out how to enhance your child's immune system through her diet.

#### 1. Oysters

When you think of the immune system, oysters are rarely what first comes to mind but that's about to change!

Why are oysters so good for immune health?

They are filled with the immune essential ingredient, zinc! Zinc is a mineral that is used by over 300 enzymatic reactions in the body.

It is essential for normal growth and development, cell maturation, skin integrity, and even taste perception!

Zinc also plays a crucial role in the immune system by supporting white blood cell development[1].

Without enough zinc, your child's immune system won't produce enough functional white blood cells and he will get sicker and stay sick longer. What's worse is that people with DS tend to be zinc deficient due to the demands of an extra chromosome.



That's where oysters come in! These tiny shellfish pack more zinc in one serving than the Recommended Daily Amount (RDA). The RDA for zinc ranges from 2-11mg based on age and gender but people with DS often need more. If oysters just aren't your child's thing, then beef, crab, chicken, pumpkin seeds, cashews, and chickpeas can boost your zinc intake.

#### 2. Fatty Fish

Fatty fish like salmon, tuna, and mackerel aren't only great for heart health but they are huge immune boosters.

Why?

Because fatty fish, specifically the skin, contains vitamin D, an essential vitamin for immune health.

Vitamin D improves immune health is a number of ways like helping to produce the body's natural anti-microbials defensins and catehlicidin [2].

Vitamin D also helps to balance TH1 and TH2 immunity while inhibiting the production of cells that increase inflammation.

While having DS doesn't lend to being vitamin D deficient in the same way it does with zinc, people with DS are more likely to be vitamin D deficient if they are overweight, avoiding sun exposure or darker skinned.

Optimal levels of vitamin D should be between 30-50 ng/mL.



## **Immune Boosting Foods Continued from Page 2**

#### 3. Mushrooms

Mushrooms are not only versatile and tasty, they pack a mean punch when it comes to immune boosting nutrients!

Mushrooms contain natural polysaccharides called betaglucans, These amazing healing sugars increase the immune system by activating the complement system and increasing macrophages and enhancing natural killer cell function [3].

The complement system is the part of your immune system that destroys foreign invaders by piercing their membranes or making them more attractive to immune cells that will eat the foreign invaders (usually macrophages).

Natural killer cells area type of white blood cell that control microbial infections by limiting their spread throughout the body and also limiting any resulting tissue damage.

While most, if not all, mushrooms have beta-glucans, shiitake, maitake, and reishi are particularly high in the immune boosting polysaccharides.

Adding zinc rich oysters, vitamin D rich fatty fish, and beta glucan rich mushrooms into your child's diet can help to give his immune system a healthy boost!



#### References

- 1.https://pubmed.ncbi.nlm.nih.gov/11115789/
- 2. https://pubmed.ncbi.nlm.nih.gov/32010129/
- 3. https://pubmed.ncbi.nlm.nih.gov/17895634/

Do you want a more personalized approach to your child's health? Visit us at <a href="https://www.lifeblossomwellness.com/book-online">www.lifeblossomwellness.com/book-online</a> to make an appointment today!

## Immune Aid Drink Recipe



The weather's getting warmer and Spring is in full swing! While this may not be the summertime lemonade your kids are used to, they'll love this tasty drinks that packs an immune boosting punch!

While this drink is tasty and immune supportive, always speak with your licensed health care professional before starting any supplement regimen.

1 cold 4 oz cup of water

1 Tablespoon Dynamic Health liquid vitamin C (1000mg)

1 teaspoon lemon juice

1 dropperful Astragalus

2-3 Dropperfuls of Pure Encapsulations Zinc Liquid (7.5-11.25 mg)

1 drop Natural Factors vitamin D3 (1000 IU)

1-2 teaspoons honey (to taste)

### Enjoy!



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