

Virus Protection & Therapeutic Agents

"If a virus replicates so fast that the immune system gets overwhelmed, sickness or chronic disease ensues but viral replication can be reduced."

What do you do if everyone in your family is sick in bed? You are still on your feet but those you live with are down for the count with influenza. How can you help them and how can you avoid or at least minimize your risk of infection? You would prefer that everyone would be on a flu prevention strategy like the one listed below, but that's not always the case.



My thanks to Dr. Alex Vasquez. I want to pull from his work on viruses, hidden infections and autoimmune disease. He has some interesting insights on reducing viral replication but before we discuss them, let's review the basic process of how viruses infect cells.

There are 6 main steps:

1. Adsorption - Virus binds to the host cell.
2. Penetration - Virus injects its genome into host cells.
3. Viral Genome Replication - Viral genome repli-

cates using the host's cellular machinery.

4. Assembly - Viral components and enzymes are produced and begin to assemble.

5. Maturation - Viral components assemble and viruses fully develop.

6. Release - Newly produced viruses are expelled from the host cell.

Any nutrient that can block or inhibit any of these processes can be a therapeutic agent. Given the right raw materials, the body will fight and destroy the virus. However, if the virus replicates so

fast that the immune system gets overwhelmed, sickness or chronic disease ensues. Dead viruses and managing the inflammatory cytokines that are secreted during the process of killing the virus are all part of the therapeutic picture. Let's look at some of the nutrients.

Vitamin A is essential for immune function and maintenance of mucosal barriers. As an antioxidant it helps reduce oxidative stress. Oxidative stress is one reason viruses mutate so quickly, adding to their effectiveness and influence. Vitamin A as

many of you know is a factor to determine if naive T cells become T regulator cells or Th 17 cells which are associated with autoimmunity.

Other nutrients that assist healthy Treg cells are listed on the handout below.

Bio Ae-Mulsion Forte by Biotics Research Corporation contains 12,500 IU of vitamin A per drop. Dr. Vasquez recommends 100,000-300,000 IU for 3-7 days then reduces to a maintenance dose of 10,000-25,000 units per day until the bottle is gone.

Selenium, a well known antioxidant and mineral necessary to make glutathione has been shown by Dr. Melinda Beck to be instrumental in reducing viral replication. She has observed that "low selenium levels lead to weakened antioxidant defenses, reduced immune surveillance, higher viral replication rates and thus conditions that favor viral mutation. Selenium interferes with the reverse transcription of the viral RNA to viral DNA thus preventing virus replication."

Biotics has a vegetable culture selenium called Se-Zyme Forte which contains 100 mcg per tablet. Consider doses of 600-800 mcg a day therapeutically, 200 mcg per day as maintenance.

Dr. Russell Blaylock a neurosurgeon and author of "Health and Nutrition Secrets That Can Save Your Life " shares how lipoic acid, N-acetylcysteine and vitamin C ascorbates are his three favorite nutrients to increase glutathione. Lipoic acid is a natural heavy metal chelator, protects the blood brain barrier and blocks excessive NF-kappa B expression. Dr. Vasquez explains that excessive NF-kappa B expression will increase viral replication. So nutrients that modulate

NF-kappa B are valuable adjuncts. He uses 400 mg, 2-4 times a day. Let's look at N-acetylcysteine or NAC. NAC is also a precursor to make glutathione but its antiviral effects are separate. NAC is a natural mucolytic agent. Watch the Tuesday Minute below to really appreciate NAC. Consider 1,000 mg, 2 times a day by mouth between meals.

Dr. Vasquez also highlights vitamin D, glutamine, zinc and vitamin C to bowel tolerance, and of course, his "Five-Part Nutritional Wellness Protocol." That's a lot of nutrients to consider. I have some further thoughts on the selection process in the handout below. However, if you have someone with a chronic autoimmune condition, it may be worth the cost and hassle to take all these nutrients.

If someone has the basic flu, you can coach them from their nutrient cabinet at home. Most of the research on these nutrients was done using single nutrients, so any combination of them would create a synergistic effect and add to their effectiveness. For example when my family got sick I ran for several products. To avert flu virus infection, I took Bio-Ae-Mulsion Forte, 150,000 units in the a.m.; Bio-D-Mulsion Forte, 50,000 units at night; NAC, 1,000 mg bid; Bio-Immunozyne Forte, 3 three times a day; and Lipoic Acid 200 mg, 2 times a day. My family was literally in bed and out of commission for 3-4 days. I felt under the weather for 36 hours but was still able to work and function in my normal day.

I hope these suggestions are helpful. I appreciate you allowing me to share ideas that may help you, your patients and your family during flu season.

Thanks for reading this week's edition of the Tuesday Minute. I'll see you next Tuesday.